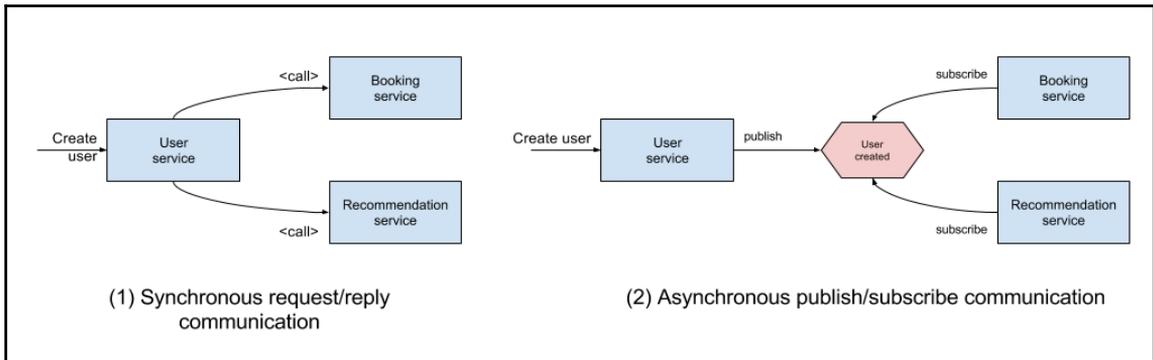
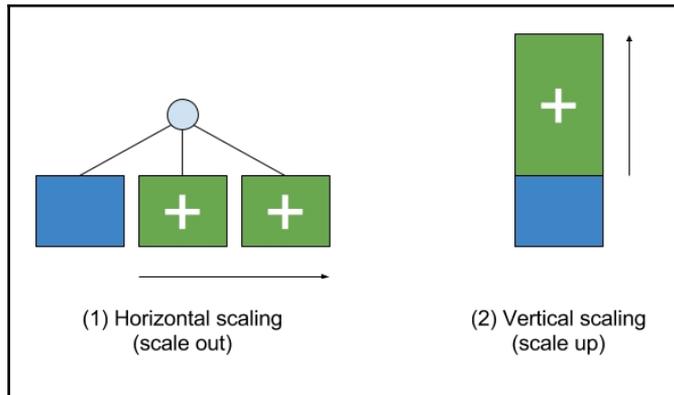
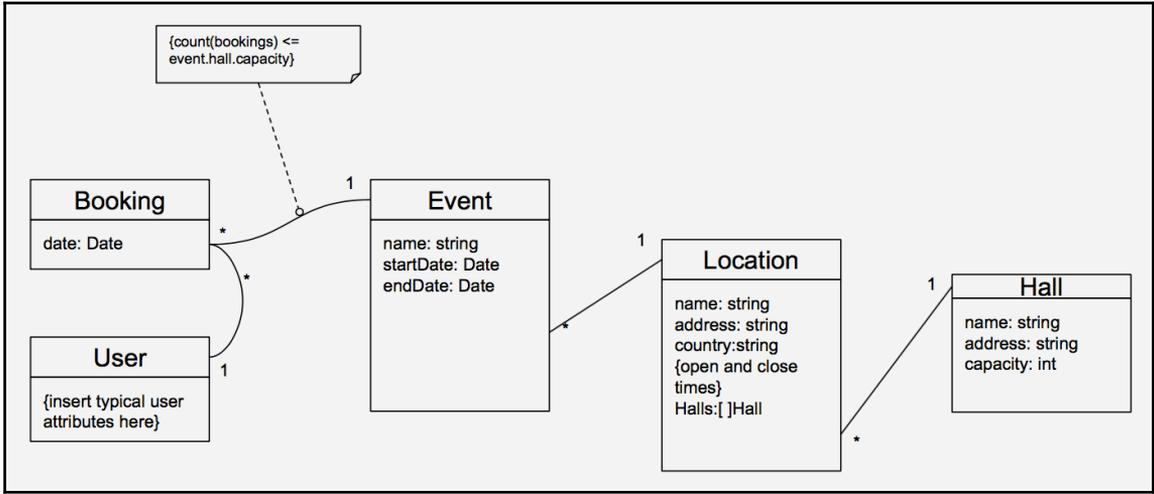
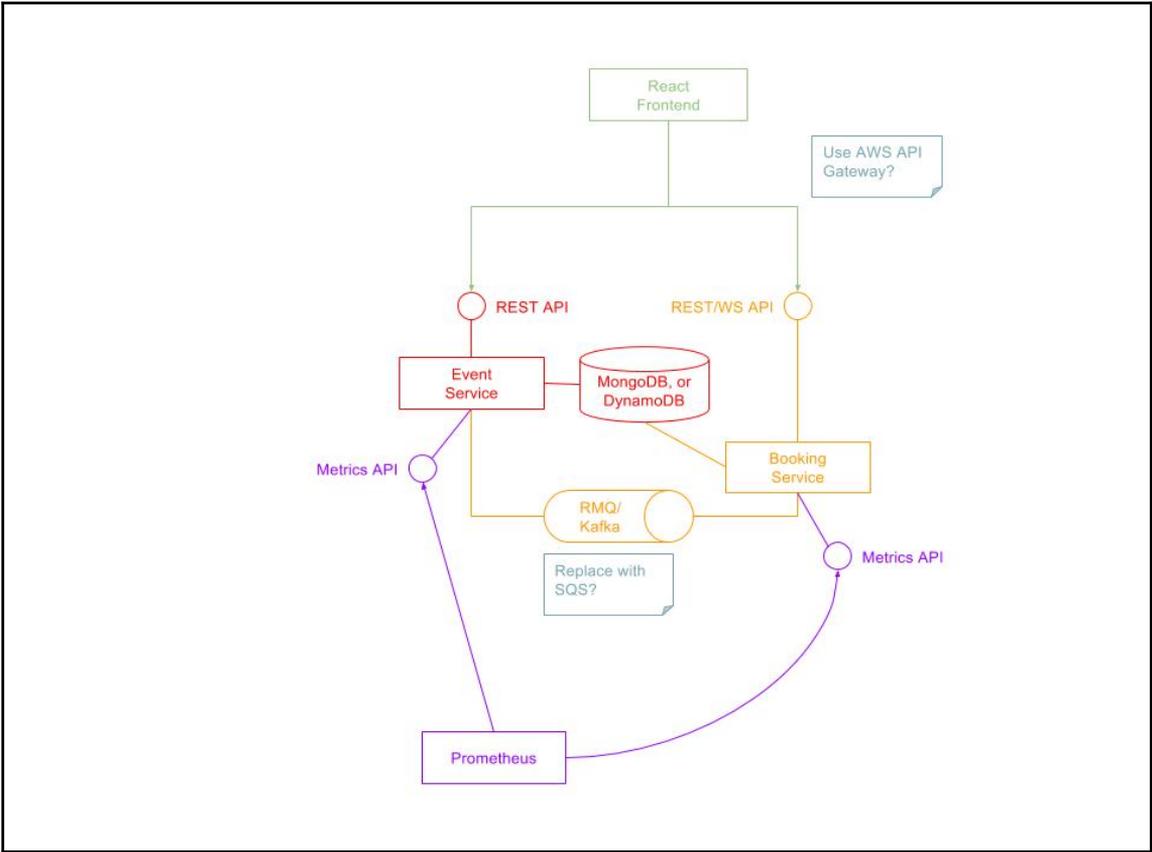


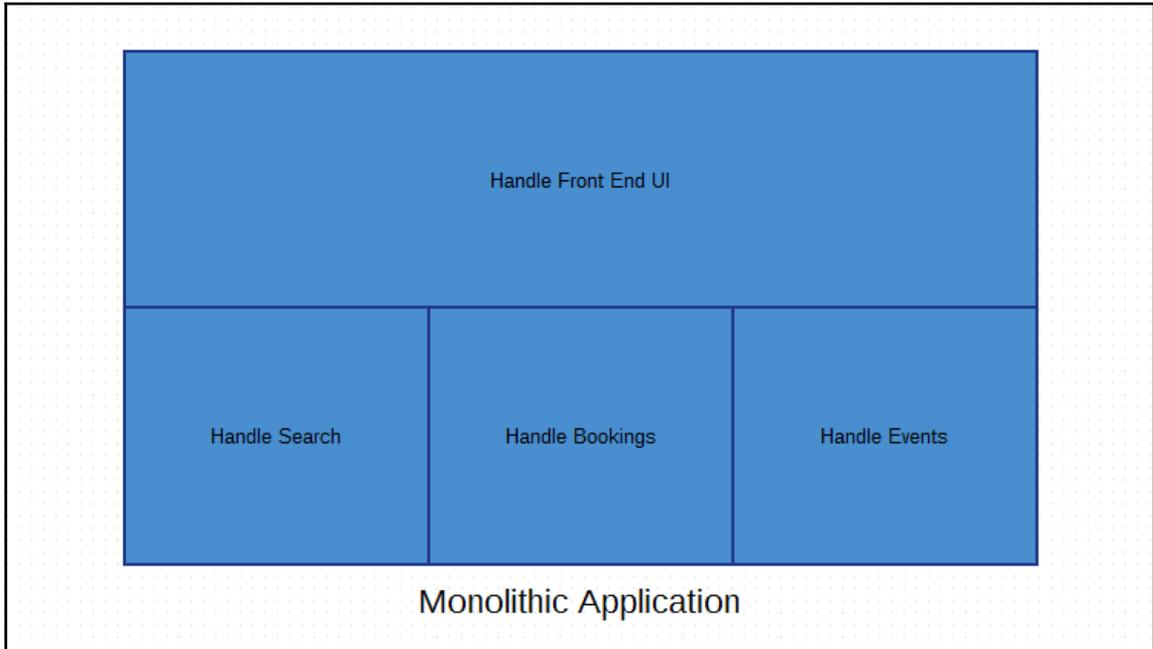
Chapter 1: Modern Microservice Architectures

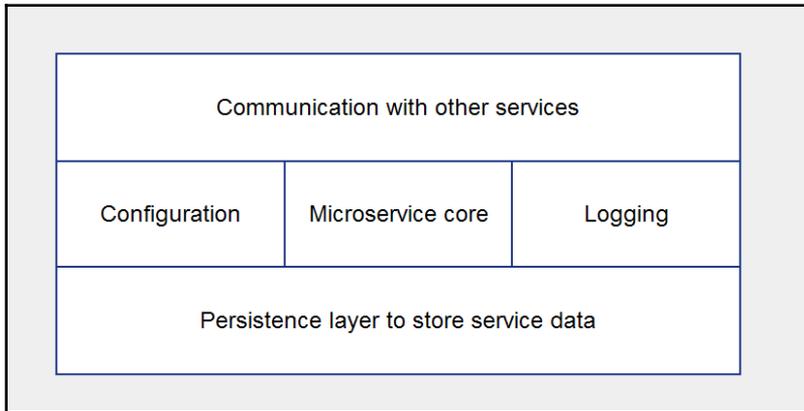
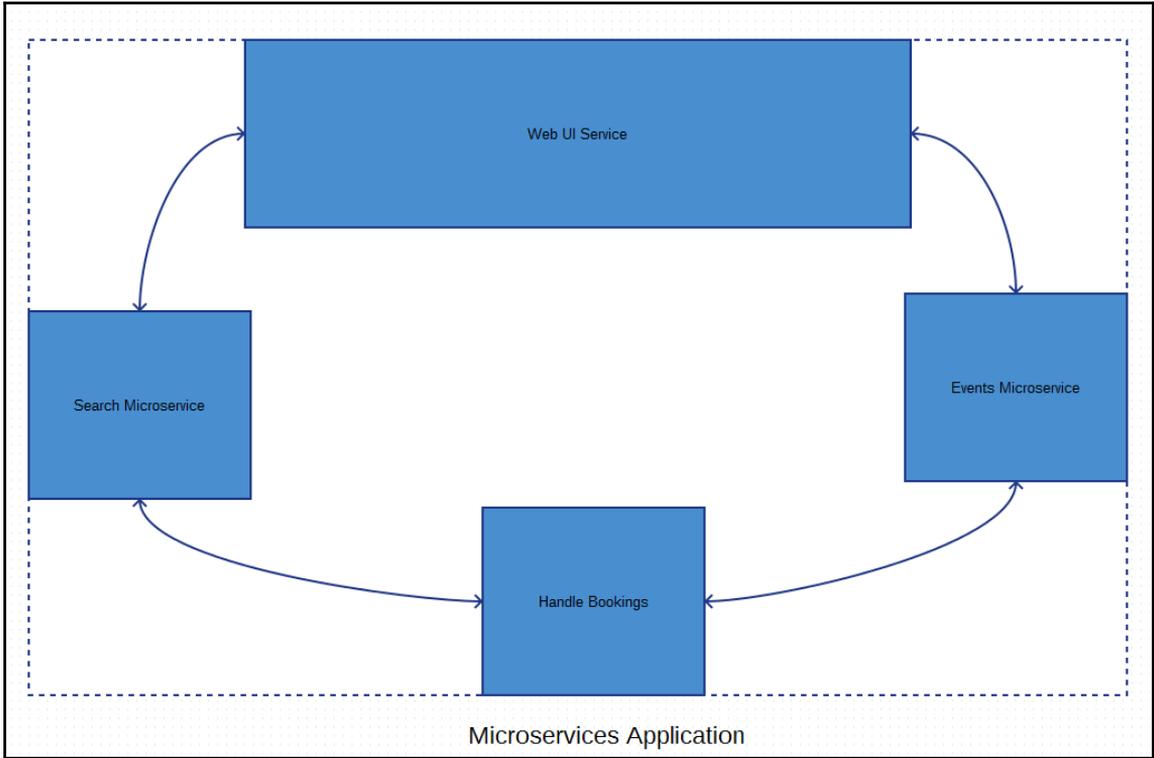


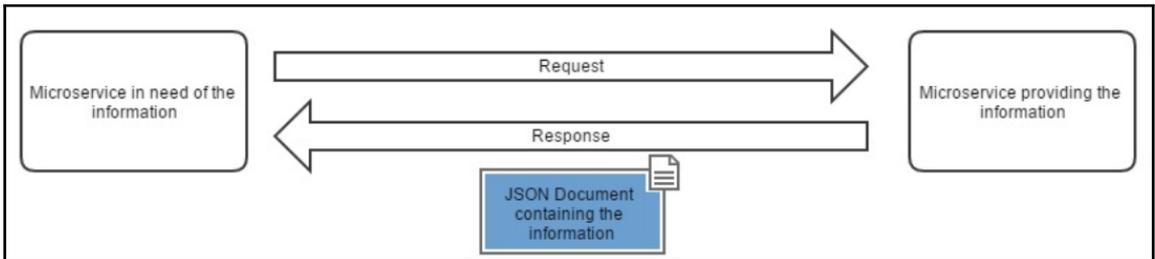
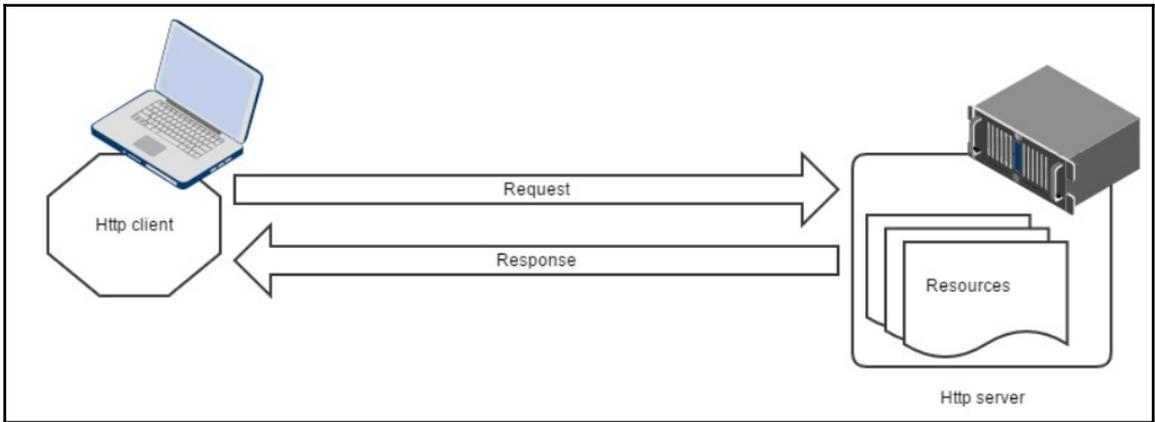
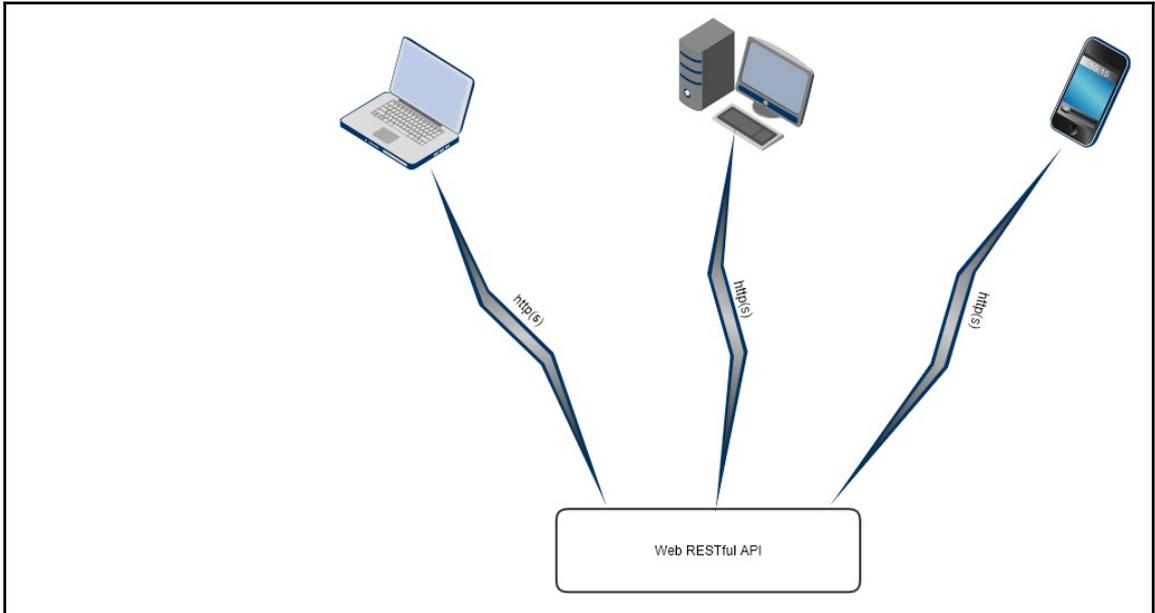




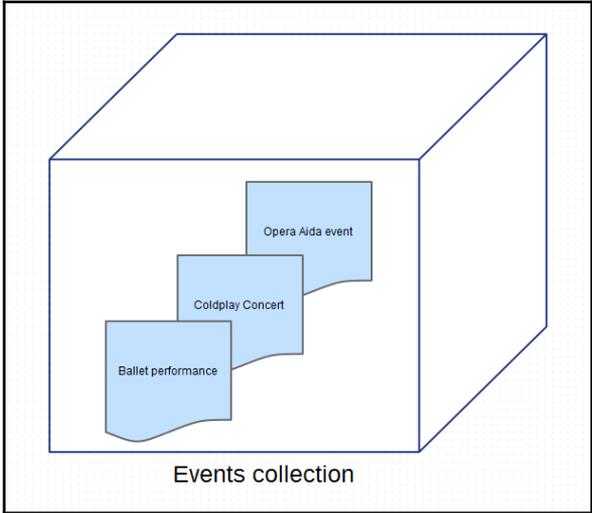
Chapter 2: Building Microservices Using Rest APIs

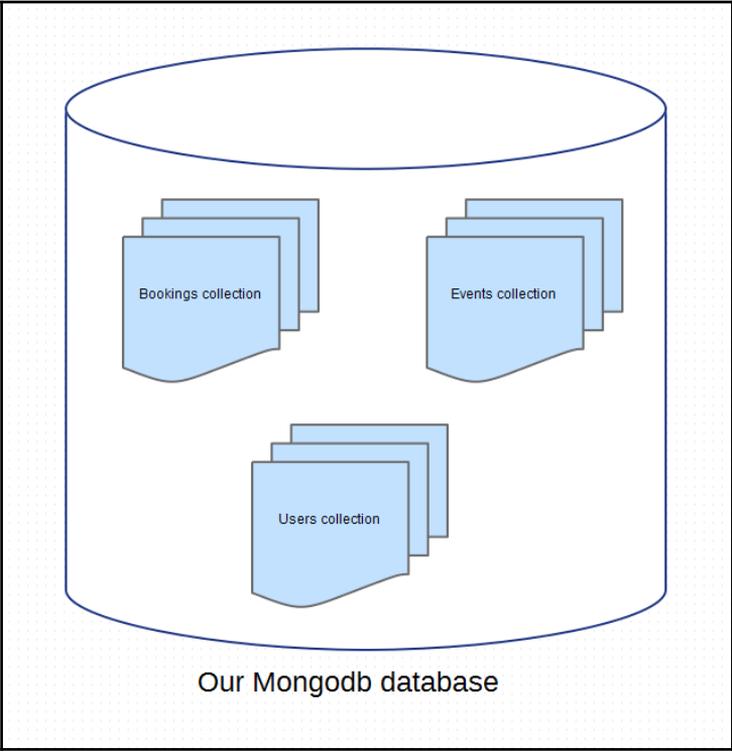






```
name: "opera aida",
startdate: 768346784368,
enddate: 43988943,
duration: 120, //in minutes
location:{
  id : 3 , //=>assign as an index
  name: "West Street Opera House",
  address: "11 west street, AZ 73646",
  country: "U.S.A",
  opentime: 7,
  clostime: 20
  Hall: {
    name : "Cesar hall",
    location : "second floor, room 2210",
    capacity: 10
  }
}
```

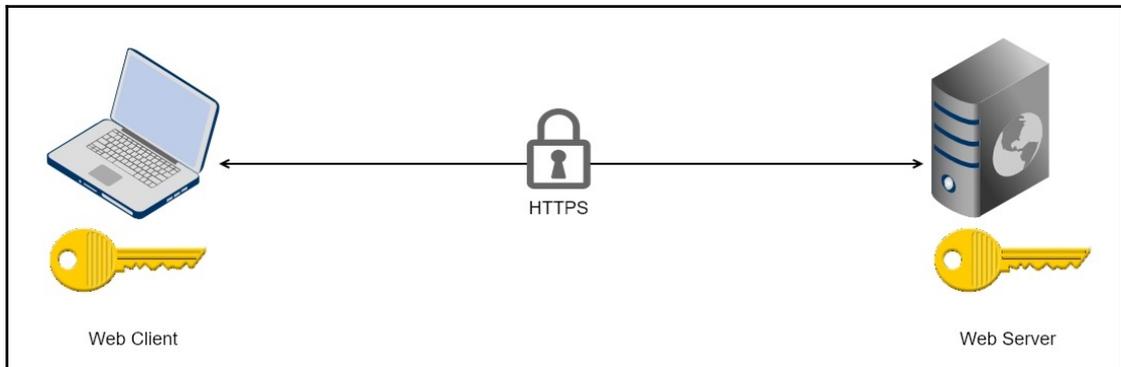
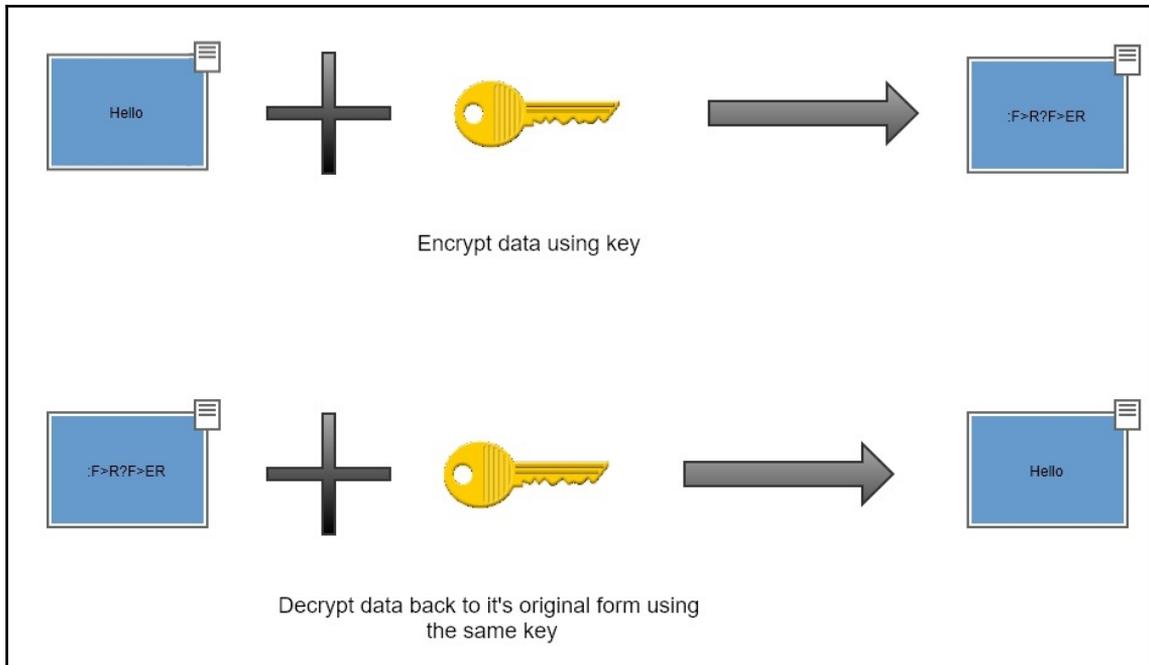


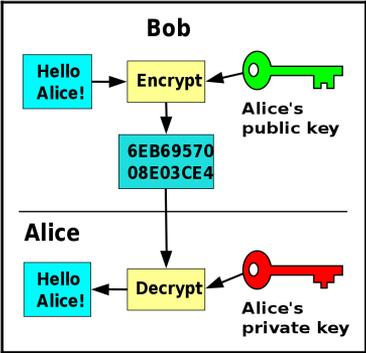
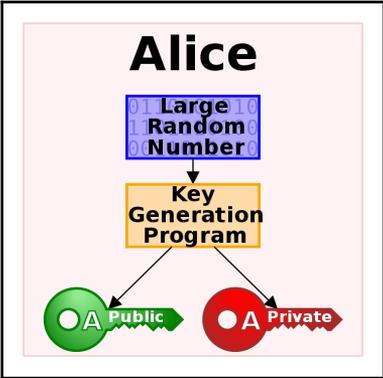


```
//events
{
  name: "opera aida",
  startdate: 768346784368,
  enddate: 43988943,
  duration: 120, //in minutes
  location:{
    id : 3 , //=>assign as an index
    name: "West Street Opera House",
    address: "11 west street, AZ 73646",
    country: "U.S.A",
    opentime: 7,
    clostime: 20
    Hall: {
      name : "Cesar hall",
      location : "second floor, room 2210",
      capacity: 10
    }
  }
}
```

```
[mongodb://][user:pass@]host1[:port1][,host2[:port2],...][/database][?options]
```

Chapter 3: Securing Microservices



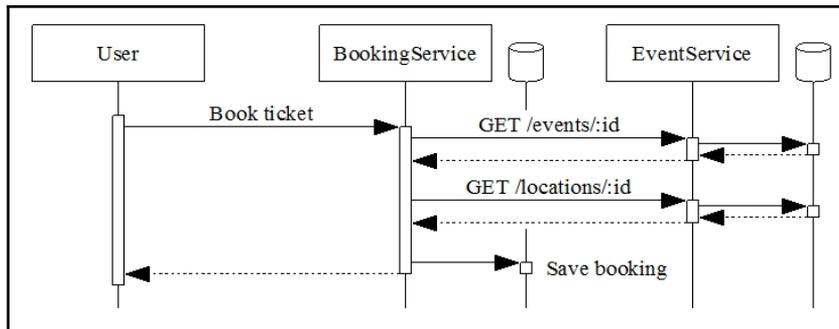
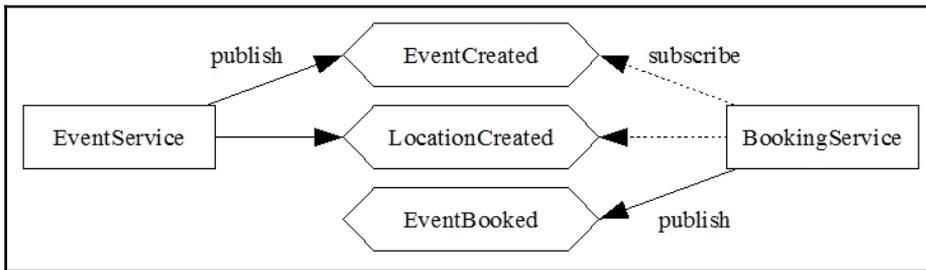
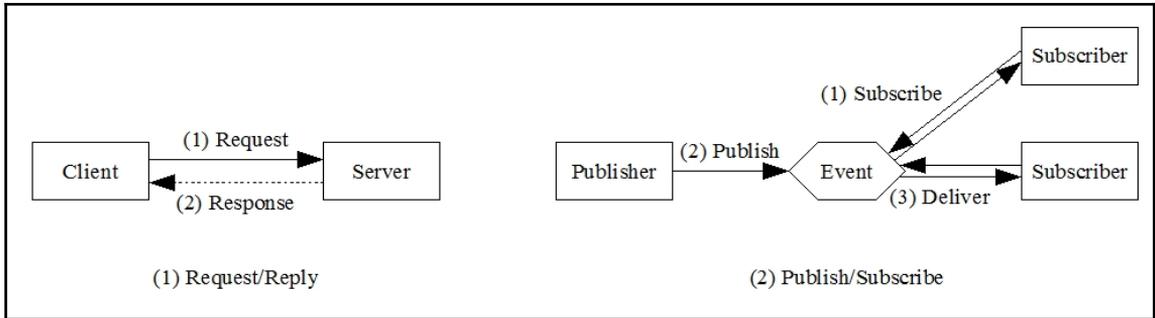


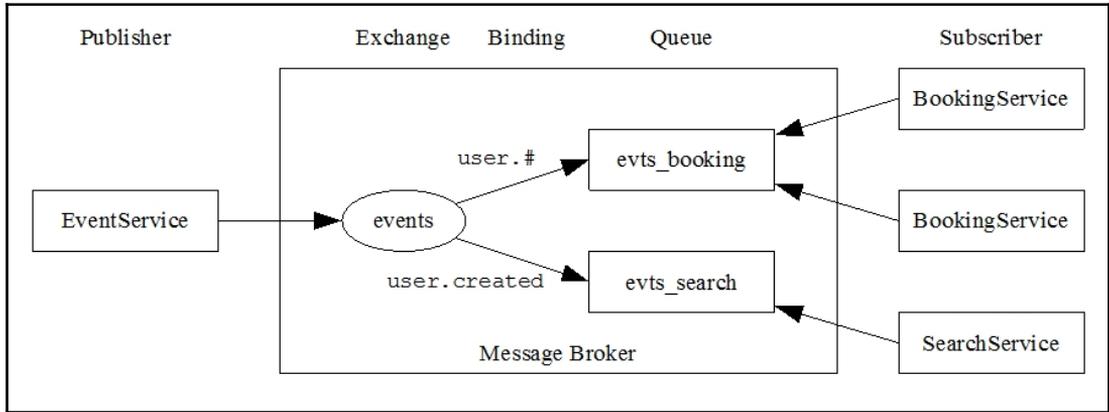
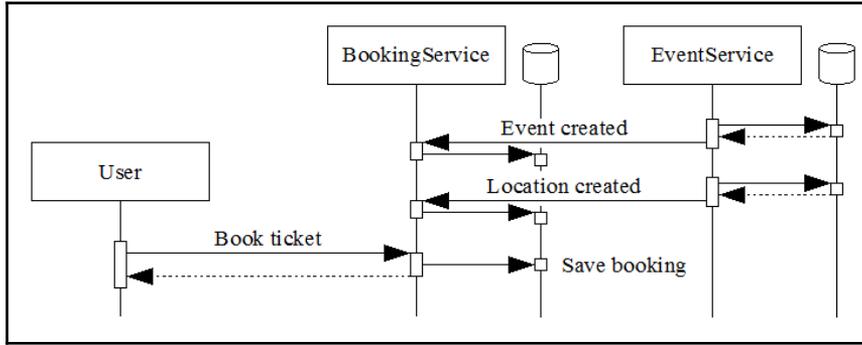
This PC > Local Disk (C:) > Go > src > crypto > tls

Name	Date modified	Type	Size
testdata	3/10/2017 2:00 AM	File folder	
alert.go	2/16/2017 7:23 PM	GO File	3 KB
cipher_suites.go	2/16/2017 7:23 PM	GO File	14 KB
common.go	2/16/2017 7:23 PM	GO File	33 KB
conn.go	2/16/2017 7:23 PM	GO File	39 KB
conn_test.go	2/16/2017 7:23 PM	GO File	10 KB
example_test.go	2/16/2017 7:23 PM	GO File	4 KB
generate_cert.go	2/16/2017 7:23 PM	GO File	5 KB
handshake_client.go	2/16/2017 7:23 PM	GO File	24 KB
handshake_client_test.go	2/16/2017 7:23 PM	GO File	43 KB
handshake_messages.go	2/16/2017 7:23 PM	GO File	33 KB
handshake_messages_test.go	2/16/2017 7:23 PM	GO File	9 KB
handshake_server.go	2/16/2017 7:23 PM	GO File	24 KB
handshake_server_test.go	2/16/2017 7:23 PM	GO File	45 KB
handshake_test.go	2/16/2017 7:23 PM	GO File	6 KB
key_agreement.go	2/16/2017 7:23 PM	GO File	15 KB
prf.go	2/16/2017 7:23 PM	GO File	11 KB
prf_test.go	2/16/2017 7:23 PM	GO File	6 KB

```
C:\>go run %GOROOT%/src/crypto/tls/generate_cert.go --host=localhost
2017/08/12 20:25:02 written cert.pem
2017/08/12 20:25:02 written key.pem
```

Chapter 4: Asynchronous Microservice Architectures Using Message Queues





RabbitMQ Management Martin

localhost:15672/#/ ☆ ⋮

RabbitMQ User: [guest](#) Log out
Cluster: [rabbit@37379a965fd0 \(change\)](#)
RabbitMQ 3.6.6, Erlang 19.2

Overview | [Connections](#) | [Channels](#) | [Exchanges](#) | [Queues](#) | [Admin](#)

Overview

▼ **Totals**

Queued messages (chart: last minute) (?)

Currently idle

Message rates (chart: last minute) (?)

Currently idle

Global counts (?)

Connections: 0 Channels: 0 Exchanges: 8 Queues: 0 Consumers: 0

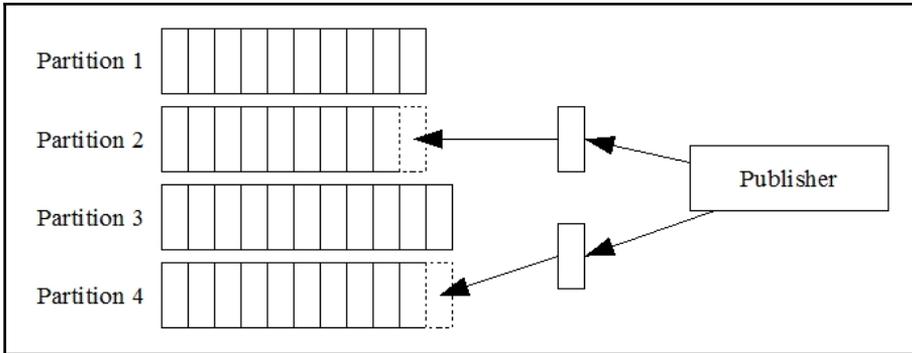
▼ **Node**

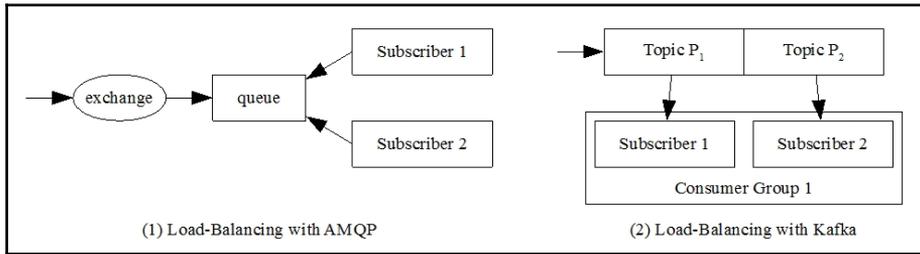
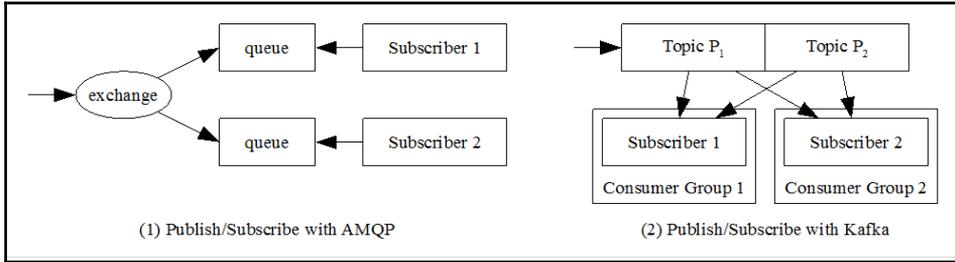
Node: [rabbit@37379a965fd0 \(More about this node\)](#)

File descriptors (?)	Socket descriptors (?)	Erlang processes	Memory	Disk space	Rates mode	Info	+/-
60 <small>1048576 available</small>	0 <small>943626 available</small>	232 <small>1048576 available</small>	62MB <small>800MB high watermark</small>	51GB <small>48MB low watermark</small>	basic	Disc 1 Stats	

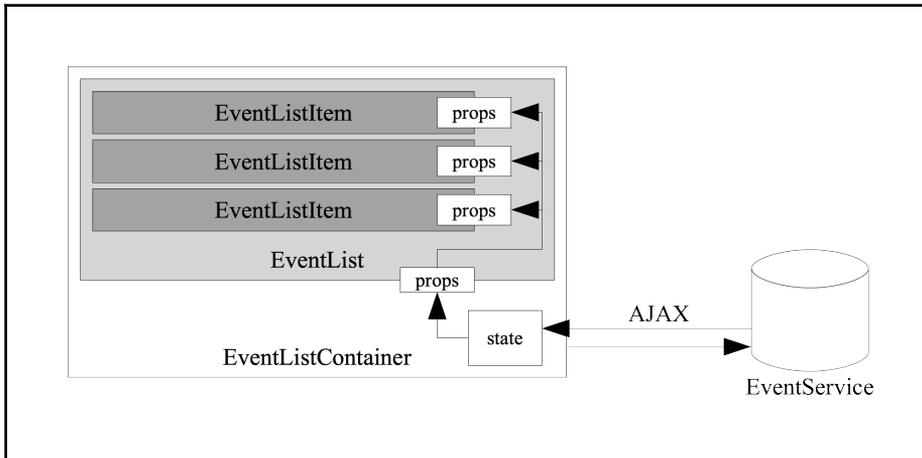
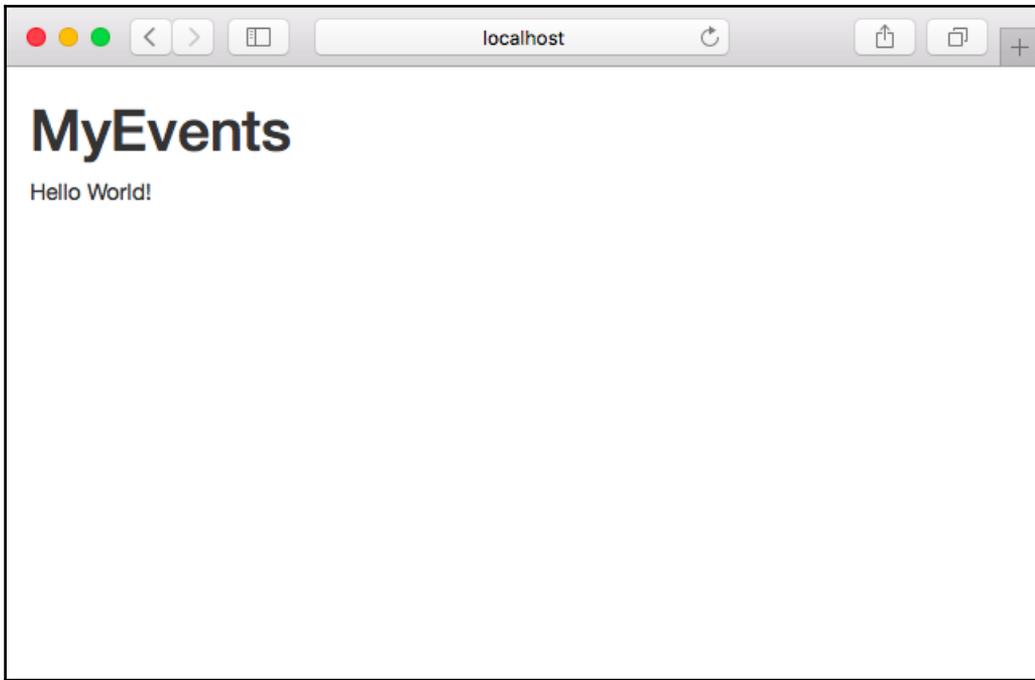
Paths

Config file	/etc/rabbitmq/rabbitmq.config
Database directory	/var/lib/rabbitmq/mnesia/rabbit@37379a965fd0
Log file	tty
SASL log file	tty



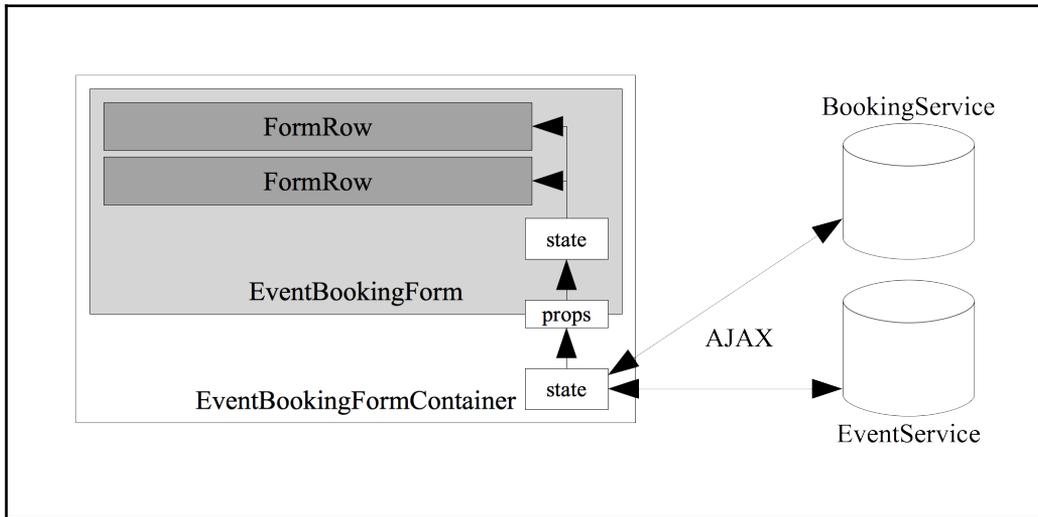


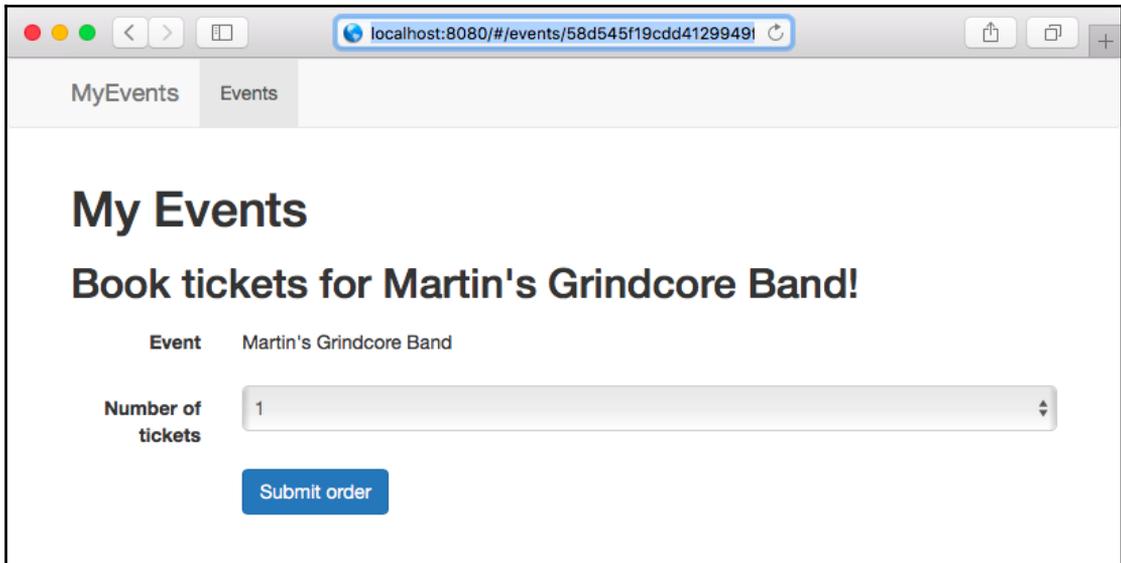
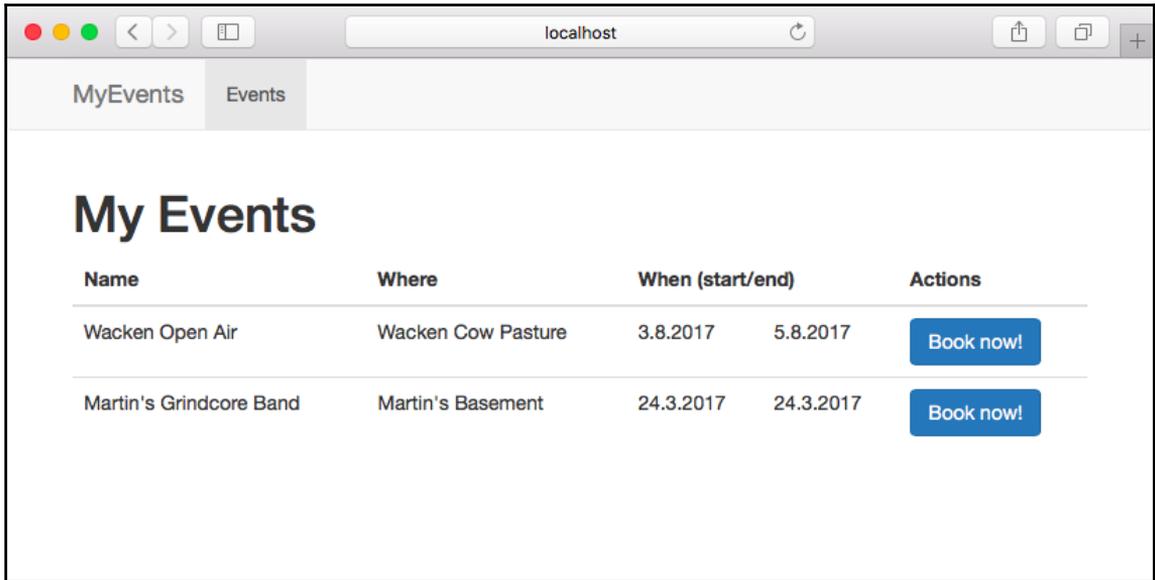
Chapter 5: Building a Frontend with React



The screenshot shows a web browser window with the address bar set to 'localhost'. The page title is 'My Events'. Below the title is a table with the following data:

Name	Where	When (start/end)		Actions
Wacken Open Air	Wacken Cow Pasture	3.8.2017	5.8.2017	
Martin's Grindcore Band	Martin's Basement	24.3.2017	24.3.2017	





Chapter 6: Deploying Your Application in Containers

```
1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~$ docker container run --rm hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
78445dd45222: Pull complete
Digest: sha256:c5515758d4c5e1e838e9cd307f6c6a0d620b5e07e6f927b07d05f6d12a1ac8d7
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://cloud.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/engine/userguide/

mhelmich@mhelmich-macbook ~$
```

```
1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~$ docker container run -d --name webserver -p 80:80 nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
6d827a3ef358: Pull complete
f8f2e0556751: Pull complete
5c9972dca3fd: Pull complete
451b9524cb06: Pull complete
Digest: sha256:e6693c20186f837fc393390135d8a598a96a833917917789d63766cab6c59582
Status: Downloaded newer image for nginx:latest
83c5c355b930df35d8e833e593169312cc0ea304c107791a95ecca86825a5817
mhelmich@mhelmich-macbook ~$ docker container ls
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
83c5c355b930       nginx              "nginx -g 'daemon ..." 8 seconds ago       Up 5 seconds       0.0.0.0:80->80/tcp, 443/tcp
webserver
mhelmich@mhelmich-macbook ~$
```

```
1. mhelmich@mhelmich-macbook: ~/Spielwiese/Docker (zsh)
mhelmich@mhelmich-macbook ~/$ vim Dockerfile
mhelmich@mhelmich-macbook ~/$ docker build -t test-image .
Sending build context to Docker daemon 85.5 kB
Step 1/3 : FROM debian:jessie
jessie: Pulling from library/debian
6d827a3ef358: Already exists
Digest: sha256:72f784399fd2719b4cb4e16ef8e369a39dc67f53d978cd3e2e7bf4e502c7b793
Status: Downloaded newer image for debian:jessie
--> 8cedef9d7368
Step 2/3 : RUN echo 'Hello World!' > /hello.txt
--> Running in 5793312c6f26
--> d1faf20460d7
Removing intermediate container 5793312c6f26
Step 3/3 : CMD cat /hello.txt
--> Running in c6cc24416c29
--> 6e8377d6bf22
Removing intermediate container c6cc24416c29
Successfully built 6e8377d6bf22
mhelmich@mhelmich-macbook ~/$
```

```
1. mhelmich@mhelmich-macbook: ~/Spielwiese/Docker (zsh)
mhelmich@mhelmich-macbook ~/$ docker image ls
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
test-image          latest              6e8377d6bf22       21 seconds ago    123 MB
nginx                latest              5766334bdaa0       4 days ago        183 MB
debian               jessie              8cedef9d7368       2 weeks ago       123 MB
rabbitmq             3-management        c74093aa9895       5 weeks ago       179 MB
hello-world          latest              48b5124b2768       2 months ago     1.84 kB
spotify/kafka        latest              a9e0a5b8b15e       4 months ago     443 MB
mhelmich@mhelmich-macbook ~/$
```

```
1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~/$ docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
8e5c9ef93271       bridge              bridge              local
25ecb84f3df2       docker_default      bridge              local
cb7a3f268d29       host                 host                 local
fd7b01c615f8       none                 null                 local
15324dc78860       test                 bridge              local
mhelmich@mhelmich-macbook ~/$
```

```

1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~ docker container run --network=test appropriate/curl http://web
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 612 100 612 0 0 160k 0 --:--:-- --:--:-- --:--:-- 597k
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
  body {
    width: 35em;
    margin: 0 auto;
    font-family: Tahoma, Verdana, Arial, sans-serif;
  }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
mhelmich@mhelmich-macbook ~

```

```

1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~ docker container ls
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS                NAMES
d9c41e7a7271      myevents/bookingservice  "/bookingservice"      15 seconds ago    Up 13 seconds      0.0.0.0:8282->8181/tcp  bookings
e3e4ffd83625      myevents/eventservice  "/eventservice"        6 minutes ago     Up 6 minutes       0.0.0.0:8181->8181/tcp  events
942b827fd89c      mongo                "docker-entrypoint..." About an hour ago  Up About an hour   27017/tcp             bookings-db
2bf8547eda9a      mongo                "docker-entrypoint..." About an hour ago  Up About an hour   27017/tcp             events-db
e124cbf9134d      spotify/kafka         "supervisord -n"       About an hour ago  Up About an hour   2181/tcp, 9092/tcp    kafka
mhelmich@mhelmich-macbook ~

```

```

1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~ docker image ls
REPOSITORY          TAG                IMAGE ID             CREATED             SIZE
myevents/bookingservice  latest            4226649a23bb       35 hours ago      10.9 MB
myevents/eventservice  latest            d4f46dc54937       35 hours ago      10.7 MB
test-image            latest            6e8377d6bf22       3 days ago        123 MB
golang                1.8.1             c0ccf5f2c036       6 days ago        703 MB
mongo                 latest            48e26382080a       6 days ago        360 MB
nginx                 latest            5766334bdaa0       7 days ago        183 MB
debian                jessie            8cedef9d7368       3 weeks ago       123 MB
appropriate/curl      latest            76e1e1007ad4       5 weeks ago       5.36 MB
rabbitmq              3-management      c74093aa9895       6 weeks ago       179 MB
ubuntu                16.04             0ef2e08ed3fa       6 weeks ago       130 MB
hello-world           latest            48b5124b2768       3 months ago      1.84 kB
spotify/kafka         latest            a9e0a5b8b15e       4 months ago      443 MB
mhelmich@mhelmich-macbook ~

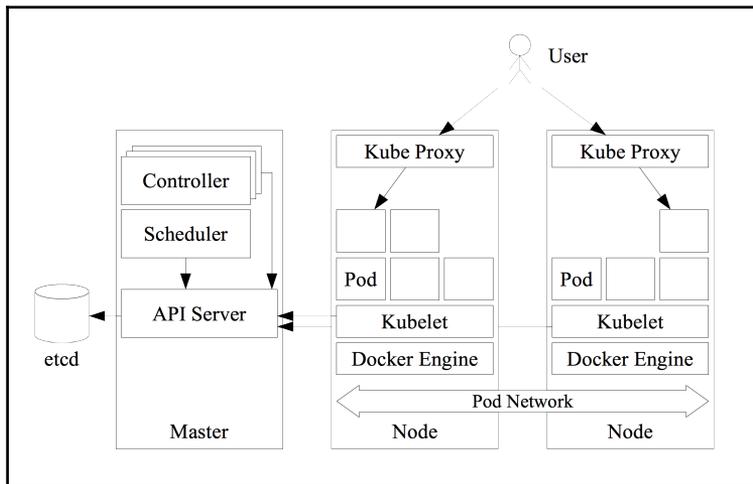
```

```

1. mhelmich@mhelmich-macbook: ~/Entwicklung/go-workspace/src/bitbucket.org/minamartinteam/myevents (zsh)
mhelmich@mhelmich-macbook ~$ docker-compose up -d
myevents_kafka_1 is up-to-date
myevents_bookings-db_1 is up-to-date
myevents_events-db_1 is up-to-date
Creating myevents_events_1
Creating myevents_bookings_1
mhelmich@mhelmich-macbook ~$ docker-compose ps

```

Name	Command	State	Ports
myevents_bookings-db_1	docker-entrypoint.sh mongod	Up	27017/tcp
myevents_bookings_1	/bookingservice	Up	0.0.0.0:8282->8181/tcp
myevents_events-db_1	docker-entrypoint.sh mongod	Up	27017/tcp
myevents_events_1	/eventservice	Up	0.0.0.0:8181->8181/tcp
myevents_kafka_1	supervisord -n	Up	2181/tcp, 9092/tcp



```

1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~$ minikube start
Starting local Kubernetes cluster...
Starting VM...
Downloading Minikube ISO
 89.51 MB / 89.51 MB [=====] 100.00% 0s
SSH-ing files into VM...
Setting up certs...
Starting cluster components...
Connecting to cluster...
Setting up kubeconfig...
Kubectl is now configured to use the cluster.
mhelmich@mhelmich-macbook ~$

```

```
1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~$ kubectl get nodes
NAME          STATUS    AGE      VERSION
minikube     Ready    23s     v1.6.0
mhelmich@mhelmich-macbook ~$
```

```
1. mhelmich@mhelmich-macbook: ~/Spielwiese/kubernetes (zsh)
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl apply -f nginx-pod.yaml
pod "nginx-test" created
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl get pods
NAME          READY    STATUS             RESTARTS  AGE
nginx-test    0/1     ContainerCreating  0         0s
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl get pods
NAME          READY    STATUS    RESTARTS  AGE
nginx-test    1/1     Running   0         26s
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$
```

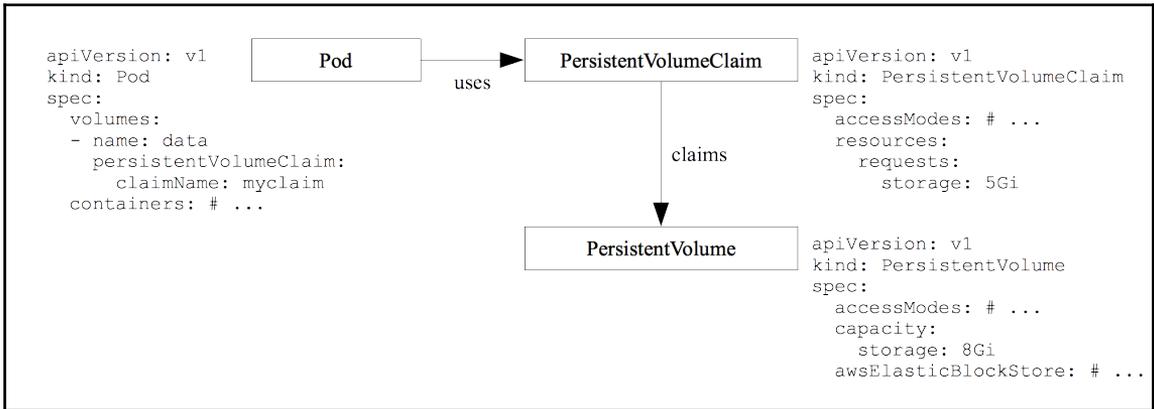
```
1. mhelmich@mhelmich-macbook: ~/Spielwiese/kubernetes (zsh)
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl apply -f nginx-deployment.yaml
deployment "nginx-deployment" created
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl get pods
NAME                                                    READY    STATUS    RESTARTS  AGE
nginx-deployment-1397492275-nl5rx                      1/1     Running   0         3s
nginx-deployment-1397492275-qz8k5                      1/1     Running   0         3s
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$
```

```
1. mhelmich@mhelmich-macbook: ~/Spielwiese/kubernetes (zsh)
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl scale --replicas=4 deployment/nginx-deployment
deployment "nginx-deployment" scaled
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$ kubectl get pods
NAME                                                    READY    STATUS             RESTARTS  AGE
nginx-deployment-1397492275-8srn1                      0/1     ContainerCreating  0         <invalid>
nginx-deployment-1397492275-fflnk                      0/1     ContainerCreating  0         <invalid>
nginx-deployment-1397492275-nl5rx                      1/1     Running           0         10m
nginx-deployment-1397492275-qz8k5                      1/1     Running           0         10m
mhelmich@mhelmich-macbook ~/Spielwiese/kubernetes$
```

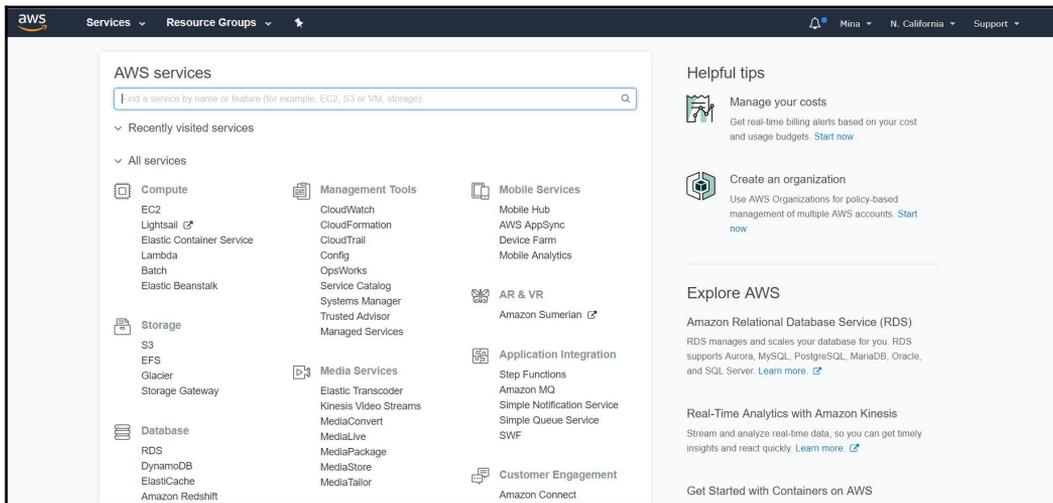
```

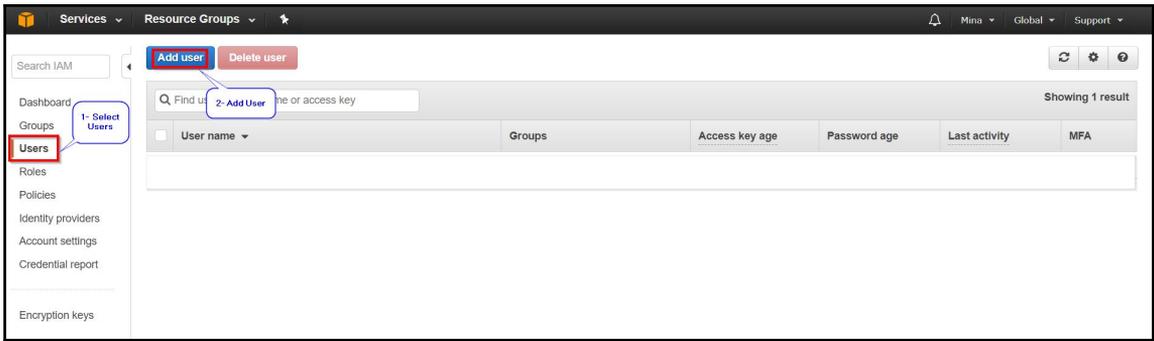
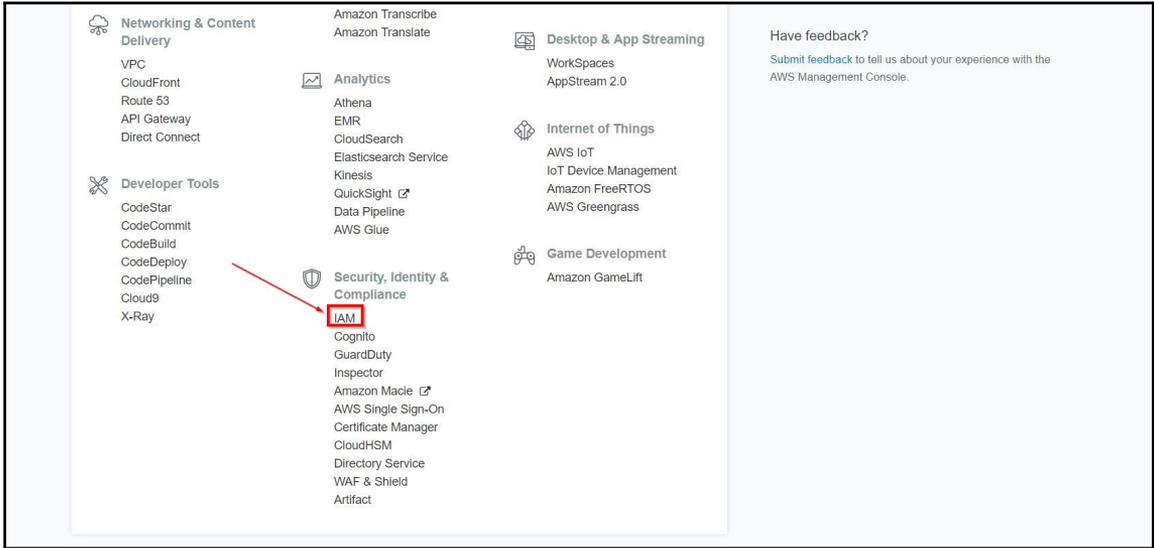
1. mhelmich@mhelmich-macbook: ~/Spielwiese/kubernetes (zsh)
mhelmich@mhelmich-macbook > kubernetes > kubectl apply -f nginx-service.yaml
service "nginx" created
mhelmich@mhelmich-macbook > kubernetes > kubectl get services
NAME          CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes    10.0.0.1     <none>        443/TCP          2h
nginx         10.0.0.223   <nodes>       80:31455/TCP    2s
mhelmich@mhelmich-macbook > kubernetes >

```



Chapter 7: AWS I – Fundamentals, AWS SDK for Go, and EC2





aws Services Resource Groups

1 Details 2 Permissions 3 Review 4 Complete

Add user

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name*

[Add another user](#)

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Access type* **Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

AWS Management Console access
Enables a **password** that allows users to sign-in to the AWS Management Console.

Set permissions for minaandrawos



Add user to group



Copy permissions from existing user



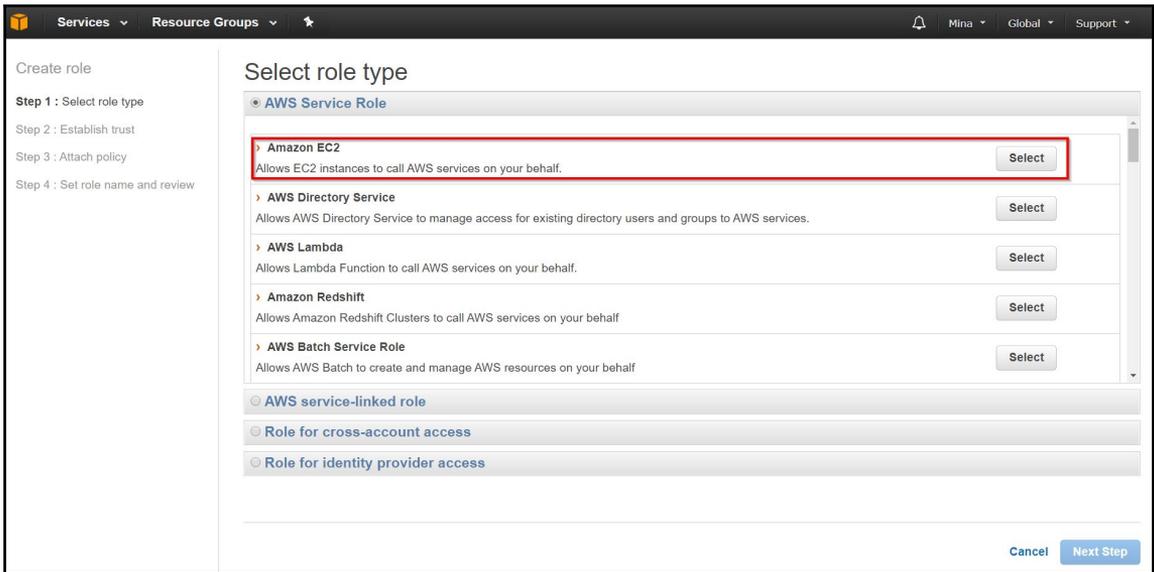
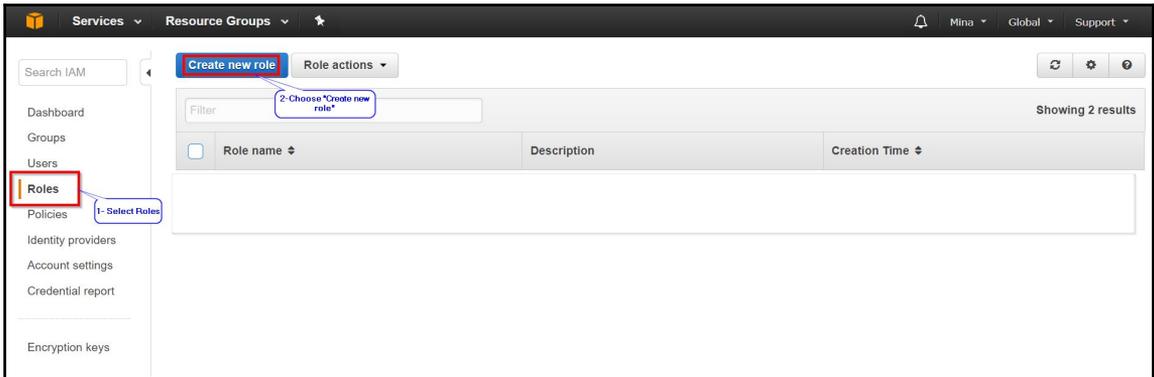
Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

[Create group](#) [Refresh](#)

Showing 1 result

Group	Attached policies
<input checked="" type="checkbox"/> S3Group	AmazonSQSFullAccess and 2 more



Create role

[Step 1 : Select role type](#)

[Step 2 : Establish trust](#)

Step 3 : Attach policy

[Step 4 : Set role name and review](#)

Attach Policy

Select one or more policies to attach. Each role can have up to 10 policies attached.

Filter: Policy Type
Showing 275 results

<input type="checkbox"/>	Policy Name	Attached Entities	Creation Time	Edited Time
<input type="checkbox"/>	AmazonS3FullAccess	1	2015-02-06 10:40 PDT	2015-02-06 10:40 PDT
<input type="checkbox"/>	AWSElasticBeanstalkEnhanced...	1	2016-02-08 15:17 PDT	2016-08-22 13:28 PDT
<input type="checkbox"/>	AWSElasticBeanstalkMulticonta...	1	2016-02-08 15:15 PDT	2016-06-06 16:45 PDT
<input type="checkbox"/>	AWSElasticBeanstalkService	1	2016-04-11 13:27 PDT	2017-06-21 09:49 PDT
<input type="checkbox"/>	AWSElasticBeanstalkWebTier	1	2016-02-08 15:08 PDT	2016-12-20 18:06 PDT
<input type="checkbox"/>	AWSElasticBeanstalkWorkerTier	1	2016-02-08 15:12 PDT	2016-12-20 18:01 PDT
<input type="checkbox"/>	AdministratorAccess	0	2015-02-06 10:39 PDT	2015-02-06 10:39 PDT
<input type="checkbox"/>	AmazonAPIGatewayAdministrator	0	2015-07-09 10:34 PDT	2015-07-09 10:34 PDT
<input type="checkbox"/>	AmazonAPIGatewayInvokeFull...	0	2015-07-09 10:36 PDT	2015-07-09 10:36 PDT
<input type="checkbox"/>	AmazonAPIGatewayPushToClo...	0	2015-11-11 15:41 PDT	2015-11-11 15:41 PDT
<input type="checkbox"/>	AmazonAppStreamFullAccess	0	2015-02-06 10:40 PDT	2015-02-06 10:40 PDT

Cancel Previous Next Step

Services Resource Groups ⌵ 🔔 Mina Global Support

Create role

[Step 1 : Select role type](#)

[Step 2 : Establish trust](#)

[Step 3 : Attach policy](#)

Step 4 : Set role name and review

Set role name and review

Review the following role information. To edit the role, click an edit link, or click **Create role** to finish.

Role name

Maximum 64 characters. Use alphanumeric and '+', '@', '_' characters

Role description

Maximum 1000 characters.

Trusted entities The identity provider(s) ec2.amazonaws.com

Policies [Change policies](#)

- arn:aws:iam::aws:policy/AmazonS3FullAccess
- arn:aws:iam::aws:policy/AmazonSQSFullAccess
- arn:aws:iam::aws:policy/AmazonDynamoDBFullAccess
- arn:aws:iam::aws:policy/AmazonAPIGatewayAdministrator

Cancel Previous Create role

← → ↻ Secure | https://us-west-1.console.aws.amazon.com/console/home?region=us-west-1 ☆ ⋮

Services ▾ Resource Groups ▾ 🔍

🔔 Mina ▾

AWS services

Find a service by name or feature (for example, EC2, S3 or VM, storage). 🔍

▾ Recently visited services

- 🏠 EC2
- 📁 S3
- 📁 Storage Gateway

▾ All services

- 🏠 **Compute**
 - EC2
 - 📦 Container Service
 - 📦 Virtual Servers in the Cloud
 - 📦 Lightsail
 - Elastic Beanstalk
 - Lambda
 - Batch
- 🔧 **Developer Tools**
 - CodeStar
 - CodeCommit
 - CodeBuild
 - CodeDeploy
 - CodePipeline
 - X-Ray
- 🌐 **Internet of Things**
 - AWS IoT
 - AWS Greengrass
- 📞 **Contact Center**
 - Amazon Connect
- 📁 **Storage**
 - S3
 - EFS
 - Glacier
 - Storage Gateway
- 📋 **Management Tools**
 - CloudWatch
 - CloudFormation
 - CloudTrail
 - Config
 - OpsWorks
 - Service Catalog
 - Trusted Advisor
 - Managed Services
- 🎮 **Game Development**
 - Amazon GameLift
- 📱 **Mobile Services**
 - Mobile Hub
 - Cognito
 - Device Farm
 - Mobile Analytics
 - Pinpoint
- 🗄️ **Database**
 - RDS
 - DynamoDB
 - ElastiCache

Helpful

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Explore

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servers. [Lea](#)

Amazon Γ

← → ↻ Secure | https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1 ☆ ⋮

Services ▾ Resource Groups ▾ ⌘ ⚙ Mina ▾

EC2 Dashboard

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 - Load Balancers

Resources

You are using the following Amazon EC2 resources in the US West (N. California) region:

1 Running Instances	1 Elastic IPs
0 Dedicated Hosts	0 Snapshots
1 Volumes	0 Load Balancers
0 Key Pairs	2 Security Groups
0 Placement Groups	

Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, storage, and networking – for a low, predictable price. [Try Amazon Lightsail for free.](#)

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

Launch Instance ←

Note: Your instances will launch in the US West (N. California) region

Service Health

Service Status:

Scheduled Events

US West (N. California):

Account Attributes

- Supported Platforms
 - VPC
- Default VPC
 - vpc-bdd10dd9
- Resource ID length management

Additional Information

- Getting Started Guide
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AWS Marketplace

Find free software trial products in the AWS Marketplace from the EC2

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start < > 1 to 31 of 31 AMIs

- My AMIs
- AWS Marketplace
- Community AMIs
- Free tier only

Amazon Linux Free tier eligible

Amazon Linux AMI 2017.03.1 (HVM), SSD Volume Type - ami-3a674d5a

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm

Select 64-bit

SUSE Linux Free tier eligible

SUSE Linux Enterprise Server 12 SP2 (HVM), SSD Volume Type - ami-32c9e552

SUSE Linux Enterprise Server 12 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type, Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.

Root device type: ebs Virtualization type: hvm

Select 64-bit

Red Hat Free tier eligible

Red Hat Enterprise Linux 7.4 (HVM), SSD Volume Type - ami-66eec506

Red Hat Enterprise Linux version 7.4 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm

Select 64-bit

Ubuntu Free tier eligible

Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-09d2fb69

Ubuntu Server 16.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>)

Root device type: ebs Virtualization type: hvm

Select 64-bit

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	m4.large	2	8	EBS only	Yes	Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

1. Choose AMI 2. Choose Instance Type 3. **Configure Instance** 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances ⓘ 1 [Launch into Auto Scaling Group](#) ⓘ

Purchasing option ⓘ Request Spot instances

Network ⓘ vpc-bdd10dd9 (default) [Create new VPC](#)

Subnet ⓘ No preference (default subnet in any Availability Zone) [Create new subnet](#)

Auto-assign Public IP ⓘ Use subnet setting (Enable) [Create new IAM role](#)

IAM role ⓘ EC2_S3_API_SQS_Dynamo [Create new IAM role](#)

Shutdown behavior ⓘ Stop

Enable termination protection ⓘ Protect against accidental termination

Monitoring ⓘ Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy ⓘ Shared - Run a shared hardware instance
Additional charges will apply for dedicated tenancy.

▶ **Advanced Details**

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. **Review**

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your Instance and complete the launch process.

▼ **AMI Details** [Edit AMI](#)

Amazon Linux AMI 2017.03.1 (HVM), SSD Volume Type - ami-3a674d5a

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.
Root Device Type: ebs Virtualization type: hvm

▼ **Instance Type** [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

▼ **Security Groups** [Edit security groups](#)

Security group name launch-wizard-1
Description launch-wizard-1 created 2017-08-20T01:25:16.655-07:00

Type	Protocol	Port Range	Source
This security group has no rules			

[Cancel](#) [Previous](#) [Launch](#)

Select an existing key pair or create a new key pair ✕

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Choose an existing key pair ▼

Select a key pair

No key pairs found ▼

⚠ No key pairs found

You don't have any key pairs. Please create a new key pair by selecting the **Create a new key pair** option above to continue.

Cancel Launch Instances

Select an existing key pair or create a new key pair ✕

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair ▼

Choose an existing key pair

Create a new key pair

Proceed without a key pair

Download Key Pair

💬 You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel Launch Instances

Select an existing key pair or create a new key pair ✕

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Key pair name

... You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Services
Resource Groups
Mina
N. California
Support

Launch Status

✔ Your instances are now launching
 The following instance launches have been initiated: I-011D1a71838fbee48 [View launch log](#)

ℹ Get notified of estimated charges
 Create [billing alerts](#) to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can [connect](#) to them from the Instances screen. [Find out how to connect to your instances.](#)

▼ Here are some helpful resources to get you started

- [How to connect to your Linux Instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)

Feedback
English
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Services ▾ Resource Groups ▾

EC2 Dashboard

- Events
- Tags
- Reports
- Limits
- INSTANCES**
 - Instances**
 - Spot Requests
 - Reserved Instances
 - Dedicated Hosts
- IMAGES
 - AMIs
 - Bundle Tasks
- ELASTIC BLOCK STORE
 - Volumes
 - Snapshots
- NETWORK & SECURITY
 - Security Groups
 - Elastic IPs
 - Placement Groups
 - Key Pairs
 - Network Interfaces
- LOAD BALANCING

Resources

You are using the following Amazon EC2 resources in the US West (N. California) region:

- 2 Running Instances
- 0 Dedicated Hosts
- 2 Volumes
- 2 Key Pairs
- 0 Placement Groups
- 1 Elastic IPs
- 0 Snapshots
- 0 Load Balancers
- 3 Security Groups

Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, storage, and networking – for a low, predictable price. Try Amazon Lightsail for free.

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

[Launch Instance](#)

Note: Your instances will launch in the US West (N. California) region

Service Health

Service Status:

- US West (N. California): This service is operating normally

Availability Zone Status:

- us-west-1b: Availability zone is operating normally

Scheduled Events

US West (N. California): No events

Services ▾ Resource Groups ▾

EC2 Dashboard

[Launch Instance](#) [Connect](#) [Actions](#)

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs
	i-01f01a71836fbee48	t2.micro	us-west-1b	running	2/2 checks ...	None	ec2-54-193-5-28 us-we...	54.193.5.28	-
Sample-env	i-032f6f51f30f09fa2	t1.micro	us-west-1c	running	2/2 checks ...	None	ec2-54-67-83-36 us-we...	54.67.83.36	-

Select an instance above

Services Resource Groups

EC2 Dashboard

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Reports

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Instances

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Reserved Instances

Dedicated Hosts

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Snapshots

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

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Launch Instance Connect Actions

Filler by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs
	i-01f01a71836fbee48	t2.micro	us-west-1b	running	2/2 checks ...	None	ec2-54-193-5-28.us-we...	54.193.5.28	-
Sample-env	i-0326f5130f09e2	t1.micro	us-west-1c	running	2/2 checks ...	None	ec2-54-67-83-36.us-we...	54.67.83.36	-

Instance: i-01f01a71836fbee48 Public DNS: ec2-54-193-5-28.us-west-1.compute.amazonaws.com

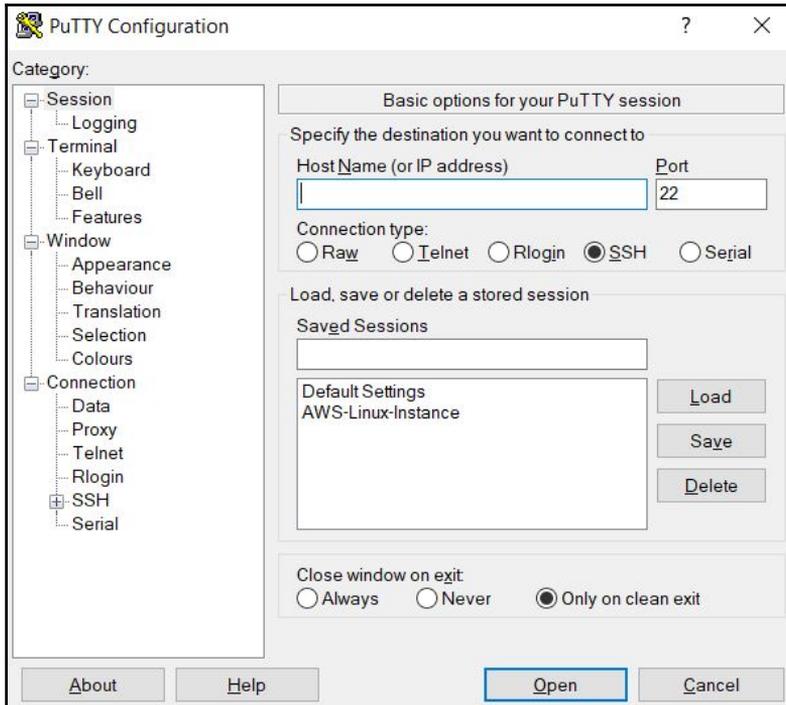
Description	Status Checks	Monitoring	Tags
Instance ID	i-01f01a71836fbee48		
Instance state	running		
Instance type	t2.micro		
Elastic IPs			
Availability zone	us-west-1b		
Security groups	launch-wizard-1 view inbound rules		
Scheduled events	No scheduled events		
AMI ID	amzn-ami-hvm-2017.03.1.20170812-x86_64-gp2 (ami-3a674d5a)		
Platform	-		
IAM role	-		
Key pair name	my-super-secret-key-pair		
Public DNS (IPv4)	ec2-54-193-5-28.us-west-1.compute.amazonaws.com		
IPv4 Public IP	54.193.5.28		
IPv6 IPs	-		
Private DNS	ip-172-31-2-79.us-west-1.compute.internal		
Private IPs	172.31.2.79		
Secondary private IPs			
VPC ID	vpc-bdd10dd9		
Subnet ID	subnet-802996d8		
Network interfaces	eth0		
Source/dest. check	True		

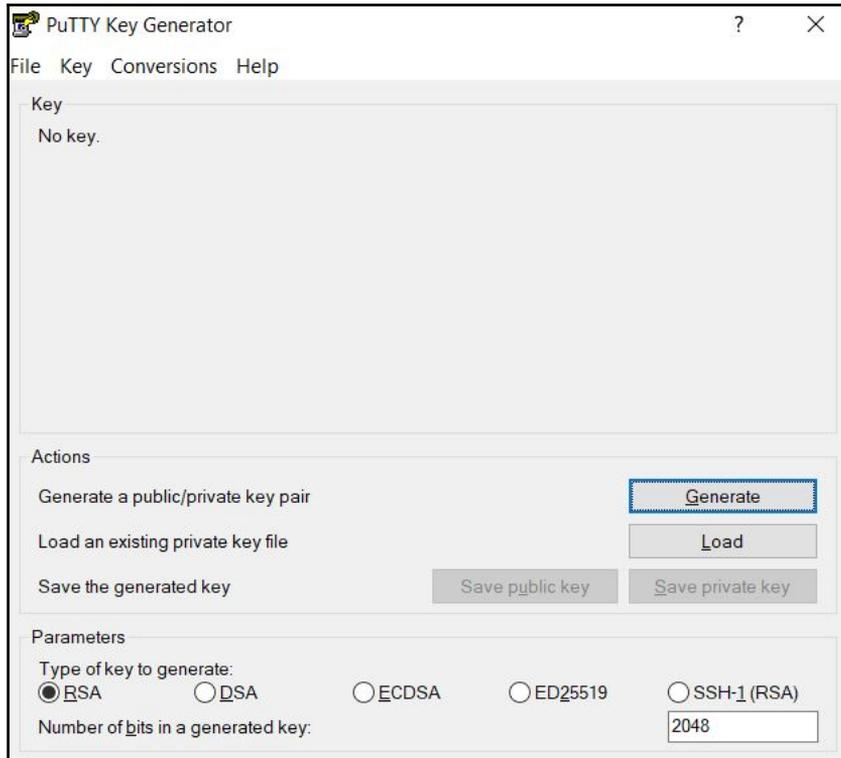
```

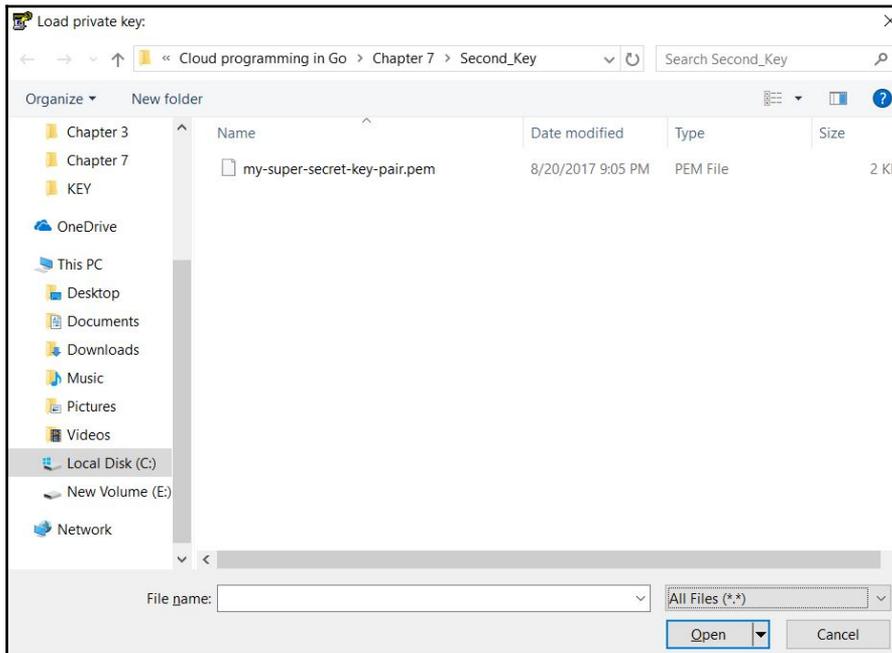
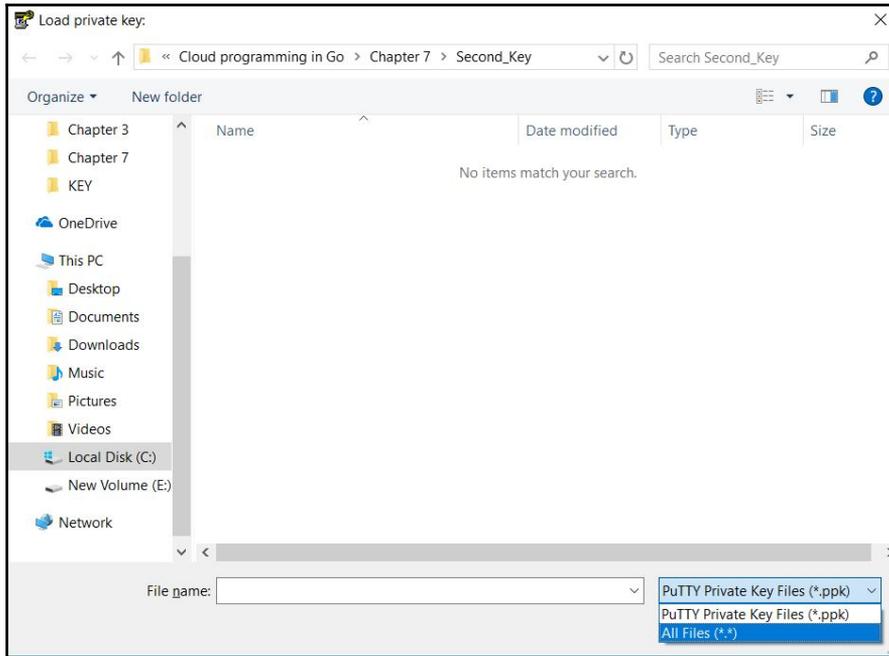
  _ | ( _ | )
  _ | ( _ | /   Amazon Linux AMI
  _ | \ _ | | |

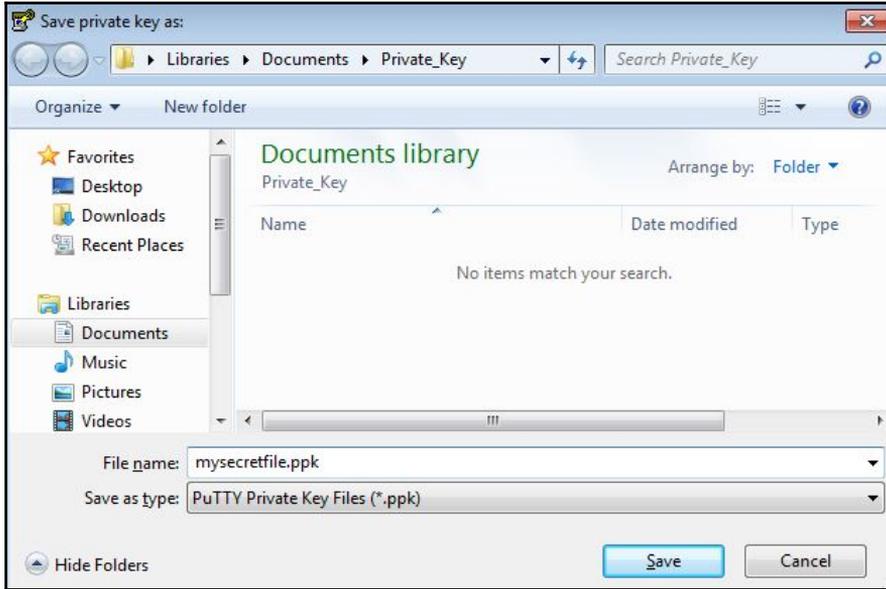
https://aws.amazon.com/amazon-linux-ami/2017.03-release-notes/
[ec2-user@ip-172-31-2-79 ~]$
[ec2-user@ip-172-31-2-79 ~]$

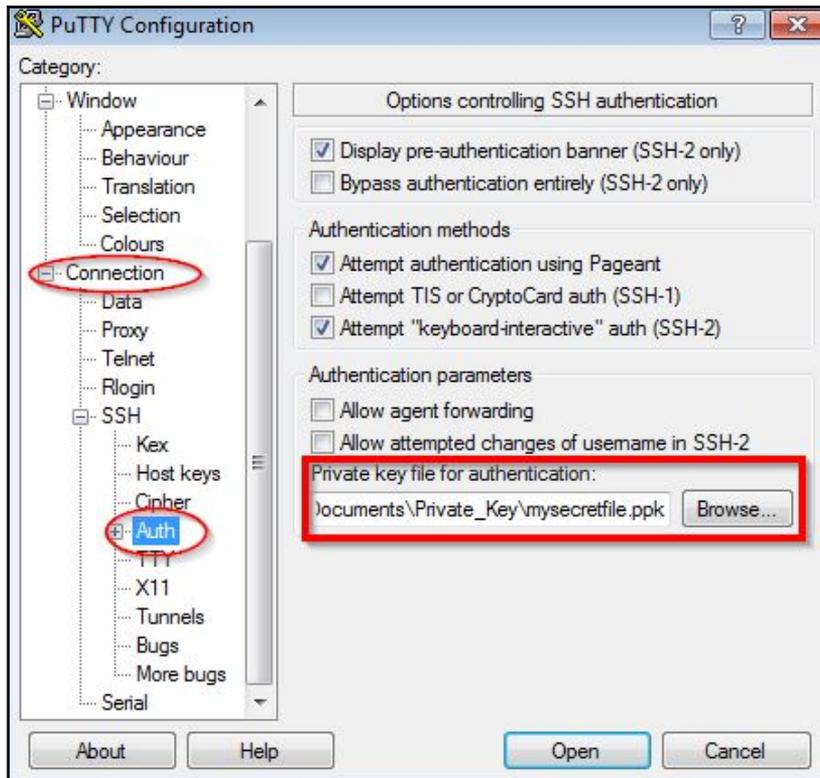
```

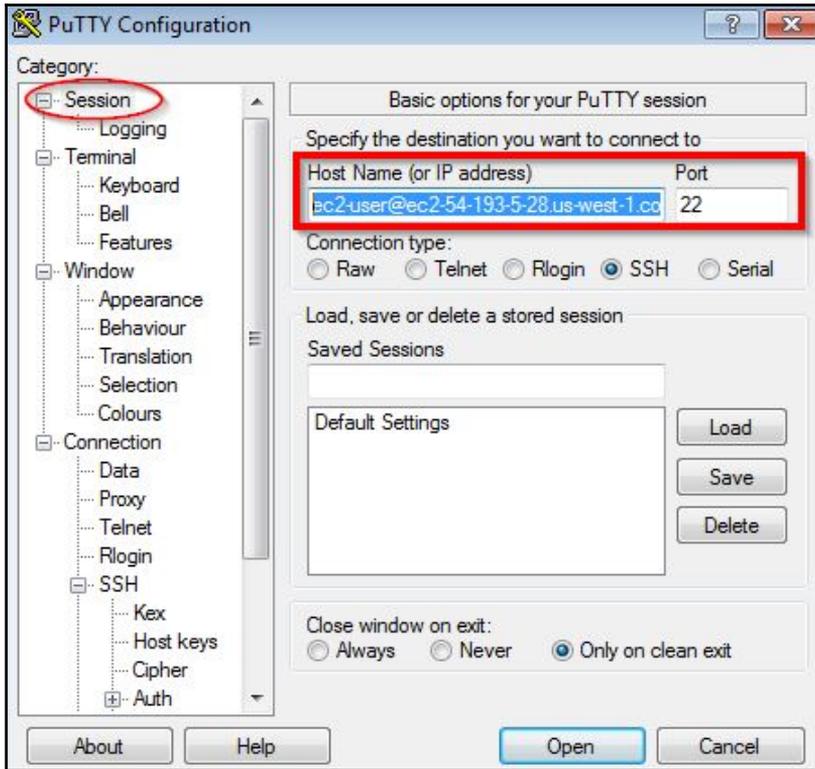




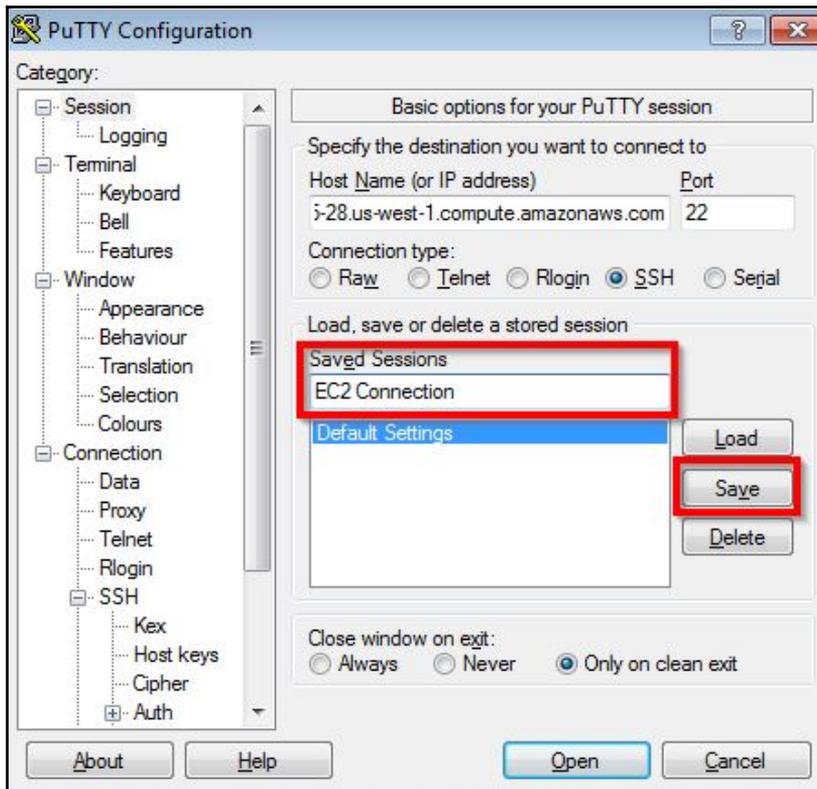








```
ec2-user@ip-172-31-2-79:~  
Using username "ec2-user".  
Authenticating with public key "imported-openssh-key"  
Last login: Sun Aug 27 07:15:11 2017 from c-73-92-226-127.hsd1.ca.comcast.net  
  
  _ | _ | _ )  
  _ | ( _ | _ /   Amazon Linux AMI  
  _ | \ _ | _ |  
  
https://aws.amazon.com/amazon-linux-ami/2017.03-release-notes/  
[ec2-user@ip-172-31-2-79 ~]$
```



Services ▾ **Resource Groups** ▾ 🔔 Mina ▾

Bundle Tasks

- ELASTIC BLOCK STORE
 - Volumes
 - Snapshots
- NETWORK & SECURITY
 - Security Groups**
 - Elastic IPs
 - Placement Groups
 - Key Pairs
 - Network Interfaces
- LOAD BALANCING
 - Load Balancers
 - Target Groups
- AUTO SCALING
 - Launch Configurations
 - Auto Scaling Groups
- SYSTEMS MANAGER SERVICES
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 - State Manager

Resources

You are using the following Amazon EC2 resources in the US West (N. California) region:

2 Running Instances	1 Elastic IPs
0 Dedicated Hosts	0 Snapshots
2 Volumes	0 Load Balancers
2 Key Pairs	5 Security Groups
0 Placement Groups	

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Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

[Launch Instance](#)

Note: Your instances will launch in the US West (N. California) region

[Service Health](#) [Scheduled Events](#)

Account Attributes

Supported Platforms

VPC

Default VPC

vpc-bdd10dd9

Resource ID length management

Additional Information

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- All EC2 Resources
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Services Resource Groups

Bundle Tasks

Create Security Group Actions

Filter by tags and attributes or search by key 1 to 5 of 5

<input type="checkbox"/>	Name	Group ID	Group Name
<input checked="" type="checkbox"/>		sg-286de04f	default
<input type="checkbox"/>		sg-30a02456	HTTP Access
<input type="checkbox"/>	Sample-env	sg-9f48c4f8	awseb-e-e3b2haerkg-stack-
<input type="checkbox"/>		sg-a53591c3	launch-wizard-1
<input type="checkbox"/>		sg-d176ccb7	TCP 8080

Security Group: sg-286de04f

Description Inbound Outbound Tags

Group name default Group d

Feedback English (US) Privacy Policy Terms of Use

Create Security Group ✕

Security group name ⓘ

Description ⓘ

VPC ⓘ

Security group rules:

Inbound

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ
<i>This security group has no rules</i>				

Create Security Group ✕

Security group name ⓘ

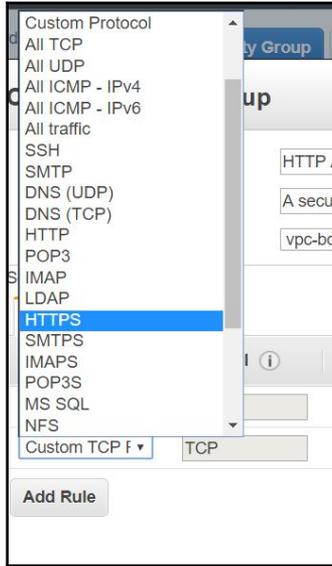
Description ⓘ

VPC ⓘ

Security group rules:

Inbound

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ
HTTP	TCP	80	Custom 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop



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Elastic IPs

Placement Groups

Key Pairs

Create Security Group Actions

Filter by tags and attributes or search by keyword

Name	Group ID	Group Name	VPC ID	Description
	sg-286de04f	default	vpc-bdd10dd9	default VPC security group
	sg-30a02456	HTTP Access	vpc-bdd10dd9	A security group to enable HTTP access
Sample-env	sg-9f48c4f8	awseb-e-e3b2haerkg-stack-...	vpc-bdd10dd9	SecurityGroup for ElasticBeanstalk environ
	sg-a53591c3	launch-wizard-1	vpc-bdd10dd9	launch-wizard-1 created 2017-08-20T20:5
	sg-d178ccb7	TCP 8080	vpc-bdd10dd9	TCP port 8080

Select a security group above

Services Resource Groups

EC2 Dashboard

Launch Instance Connect Actions

Filter by tags and attributes of s

Name	Instance ID	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
ec_app_test	i-01f01a71	us-west-1b	running	2/2 checks ...	None	ec2-54-193-5-28.us-west-1.compute.amazonaws.com
Sample-env	i-032f6f51f	us-west-1c	running	2/2 checks ...	None	ec2-54-6...

Instance: i-01f01a71836fbee48 (ec_app_test) Public DNS

Description	Status Checks	Monitoring	Tags
Instance ID	i-01f01a71836fbee48		
Instance state	running		
Instance type	t2.micro		
Elastic IPs			
Availability zone	us-west-1b		
Security groups	HTTP Access, TCP 8080, launch-wizard-1. view inbound rules		
Scheduled events	No scheduled events		
AMI ID	amzn-ami-hvm-2017.03.1.20170812-x86_64-gp2		
Public DNS (IPv4)	ec2-54-193-5-28.us-west-1.compute.amazonaws.com		
IPv4 Public IP	54.193.5.28		
Private DNS	ip-172-31-2-79.us-west-1.compute.internal		
Private IPs	172.31.2.79		
Secondary private IPs			
VPC ID	vpc-bdd10dd9		
Subnet ID	subnet-802996d8		

Networking

Change Security Groups

Attach Network Interface

Detach Network Interface

Disassociate Elastic IP Address

Change Source/Dest. Check

Manage IP Addresses

Services Resource Groups

EC2 Dashboard Launch Instance Connect Actions

Change Security Groups

Instance ID: i-01f01a71836fbee48
Interface ID: eni-04429907

Select Security Group(s) to associate with your instance

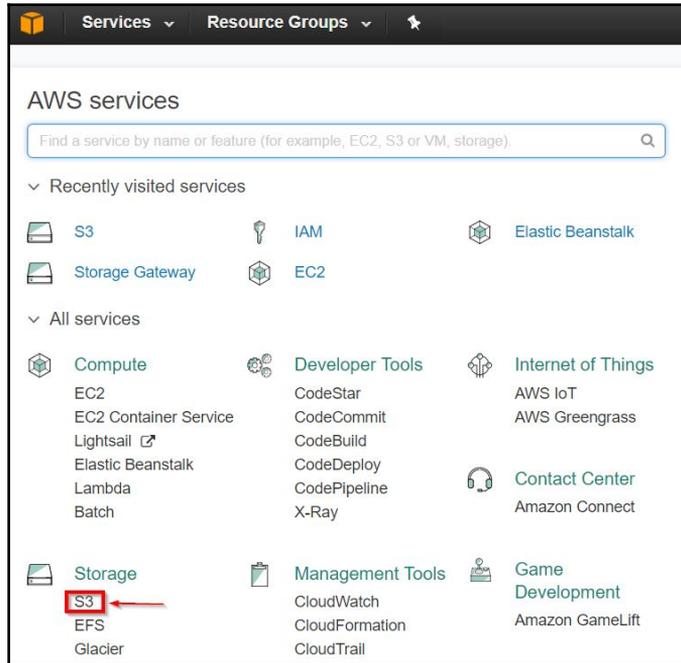
Security Group ID	Security Group Name	Description
<input type="checkbox"/> sg-9f48c4f8	awseb-e-e3b2haerk-stack-AWSEBS...	SecurityGroup for ElasticBeanstalk environment.
<input type="checkbox"/> sg-286de04f	default	default VPC security group
<input checked="" type="checkbox"/> sg-30a02456	HTTP Access	A security group to enable HTTP access
<input checked="" type="checkbox"/> sg-a53591c3	launch-wizard-1	launch-wizard-1 created 2017-08-20T20:56:24.128-07:00
<input checked="" type="checkbox"/> sg-d176ccb7	TCP 8080	TCP port 8080

Cancel Assign Security Groups

Scheduled events No scheduled events VPC ID vpc-bdd10dd9
AMI ID amzn-ami-hvm-2017.03.1.20170812-x86_64-gp2 Subnet ID subnet-802996d8

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Chapter 8: AWS II–S3, SQS, API Gateway, and Dynamo DB



Amazon Glacier now offers expedited retrievals, typically in 1-5 minutes. [Learn More](#) »

Documentation

Amazon S3

Discover the new console Quick tips

Search for buckets

+ Create bucket Delete bucket Empty bucket

2 Buckets 0 Public 1 Regions

Bucket name	Access	Region	Date created
mmandbucket	Not public *	US West (N. California)	Aug 28, 2017 10:01:50 PM GMT-0700

Amazon S3 > mmandbucket

Overview Properties Permissions Management

Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder More

US West (N. California)

Glacier	CloudTrail	Mobile Services	Run and scale code for Python, Node.js, Java, or C# without provisioning or managing servers. Learn more
Storage Gateway	Config	Mobile Hub	
	OpsWorks	Cognito	
Database	Service Catalog	Device Farm	
RDS	Trusted Advisor	Mobile Analytics	
DynamoDB	Managed Services	Pinpoint	
ElastiCache			
Amazon Reshift	Security, Identity & Compliance	Application Services	Amazon DynamoDB
	IAM	Step Functions	Fast and flexible NoSQL database service for any scale. Learn more
Networking & Content	Inspector	SWF	
Delivery	Certificate Manager	API Gateway	AWS Marketplace
VPC	Directory Service	Elastic Transcoder	Discover, procure, and deploy popular software products that run on AWS. Learn more
CloudFront	WAF & Shield		
Direct Connect	Artifact	Messaging	Have feedback?
Route 53	Amazon Macie	Simple Queue Service	Submit feedback to tell us about your experience with the AWS Management Console.
	CloudHSM	Simple Notification Service	
		Simple Email Service	
Migration	Analytics	Business Productivity	
AWS Migration Hub	Athena	WorkDocs	
Application Discovery Service	EMR	WorkMail	
Database Migration Service	CloudSearch	Amazon Chime	
Server Migration Service	Elasticsearch Service		
Snowball	Kinesis	Desktop & App Streaming	
	Data Pipeline	WorkSpaces	
	QuickSight		
	AWS Glue		

Services Resource Groups

Create New Queue

What do you want to name your queue?

Queue Name ⓘ

Type the queue name.

Region ⓘ US West (N. California)

For more information, see the [Amazon SQS FAQs](#) and the [Amazon SQS Developer Guide](#).

You can change these default parameters.

Queue Attributes

Default Visibility Timeout ⓘ 30 seconds Value must be between 0 seconds and 12 hours.

Message Retention Period ⓘ 4 days Value must be between 1 minute and 14 days.

Maximum Message Size ⓘ 256 KB Value must be between 1 and 256 KB.

Delivery Delay ⓘ 0 seconds Value must be between 0 seconds and 15 minutes.

Receive Message Wait Time ⓘ 0 seconds Value must be between 0 and 20 seconds.

aws Services Resource Groups

Create New Queue Queue Actions

Filter by Prefix: Enter Text...

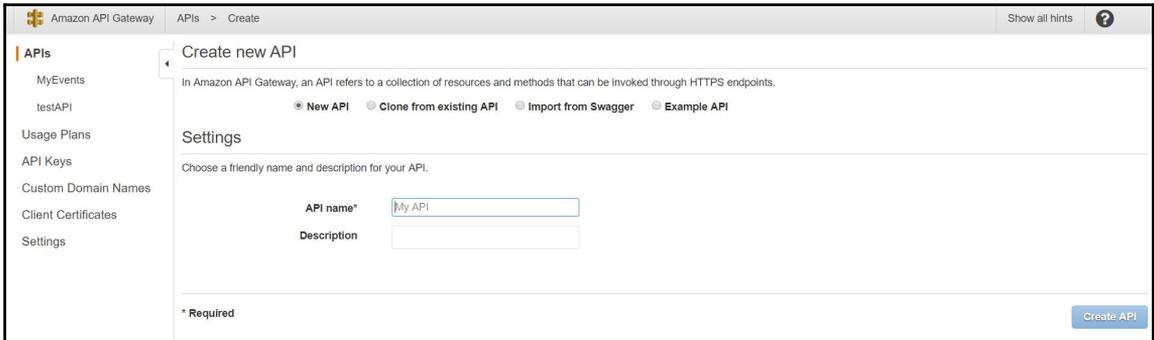
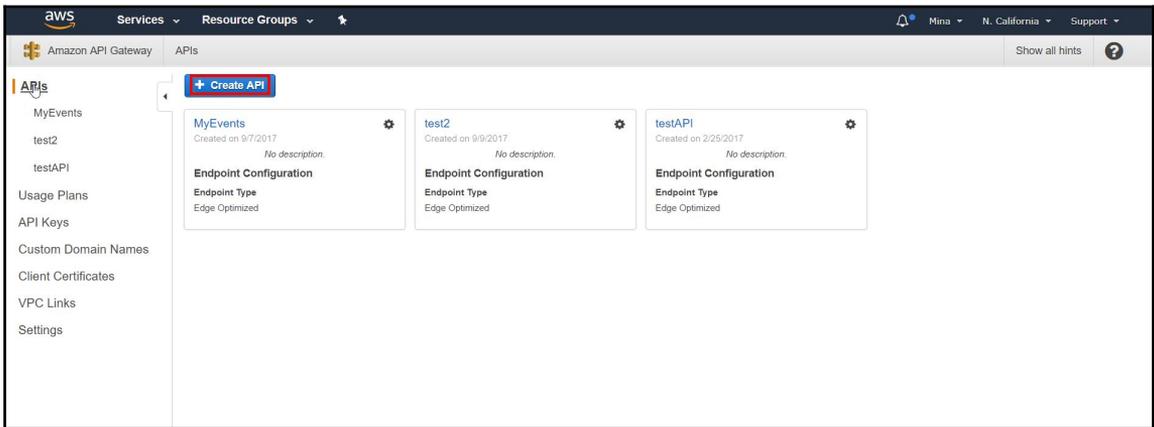
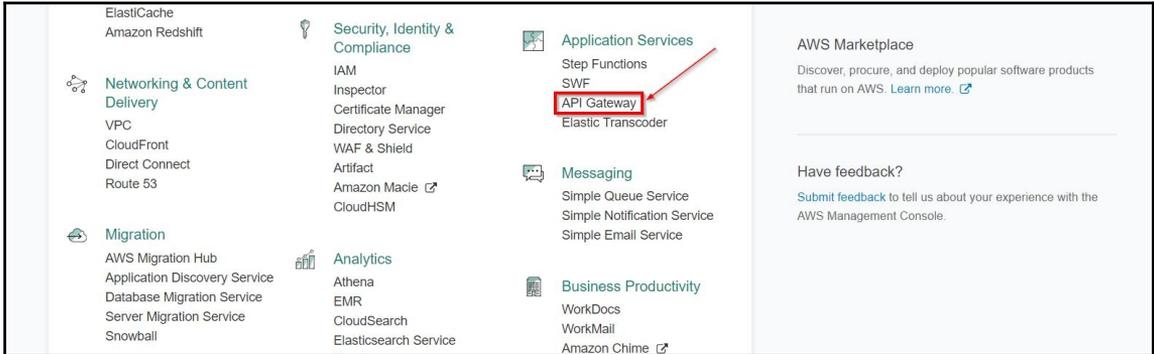
Name	Messages Available	Messages In Flight	Created
eventqueue	0	0	2017-09-03 13:22:24 GMT-07:00

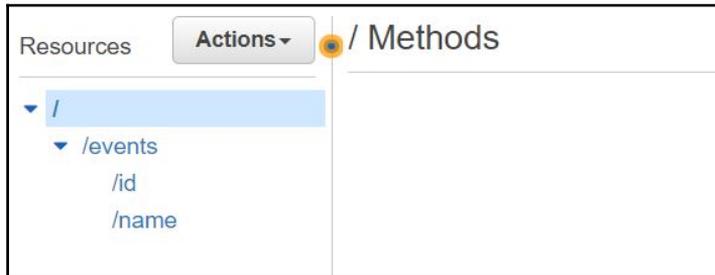
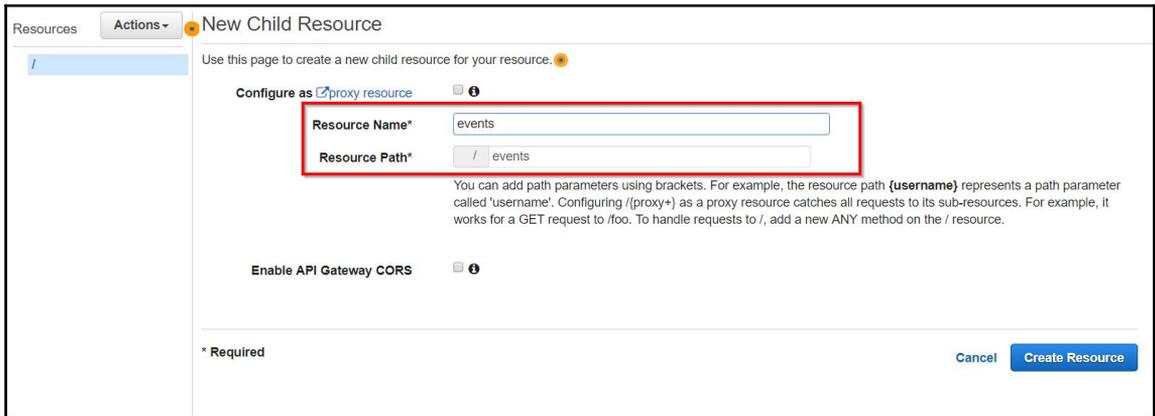
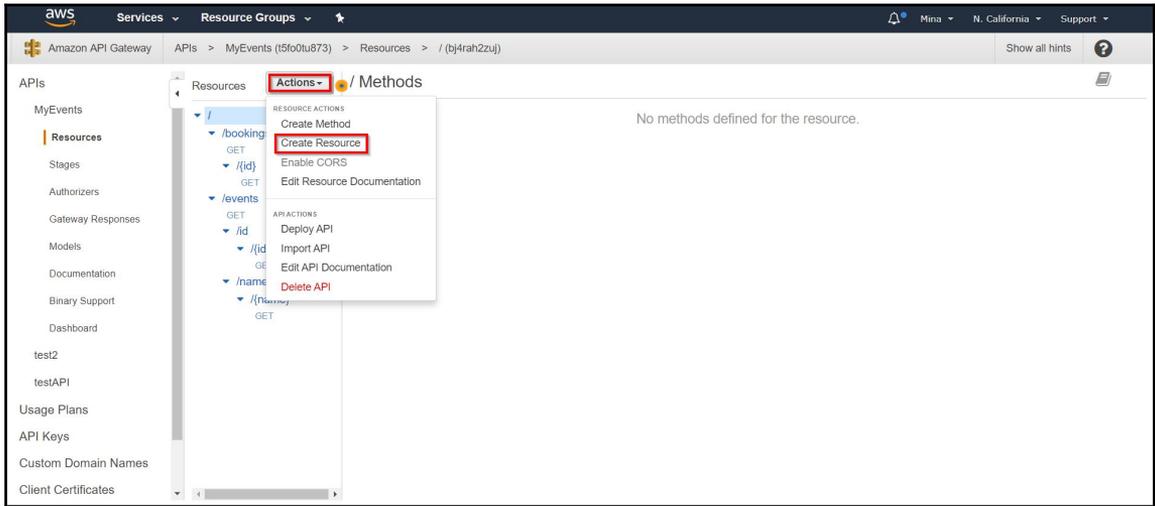
1 SQS Queue selected

Details Permissions Redrive Policy Monitoring Tags

Name: eventqueue
URL: https://sqs.us-west-1.amazonaws.com/395512779847/eventqueue
ARN: arn:aws:sqs:us-west-1:395512779847:eventqueue
Created: 2017-09-03 13:22:24 GMT-07:00
Last Updated: 2017-09-03 13:22:24 GMT-07:00
Delivery Delay: 0 seconds
Messages Delayed: 0

Default Visibility Timeout: 30 seconds
Message Retention Period: 4 days
Maximum Message Size: 256 KB
Receive Message Wait Time: 0 seconds
Messages Available (Visible): 0
Messages In Flight (Not Visible): 0





Resources **Actions** New Child Resource

Use this page to create a new child resource for your resource.

Configure as proxy resource ?

Resource Name*

Resource Path*

You can add path parameters using brackets. For example, the resource path **{username}** represents a path parameter called 'username'. Configuring /events/id/{proxy+} as a proxy resource catches all requests to its sub-resources. For example, it works for a GET request to /events/id/foo. To handle requests to /events/id, add a new ANY method on the /events/id resource.

Enable API Gateway CORS ?

* Required

Cancel Create Resource

Resources **Actions** /events/name/{name} Methods

No methods defined for the resource.

Resources tree: / > /events > /id > /name > **/{name}**

Amazon API Gateway APis > test2 (e516142n6) > Resources > /events/name/{name} (tby1x6) Show all hints ?

APIs: MyEvents, test2, Resources, Stages, Authorizers, Gateway Responses, Models, Documentation, Binary Support

Resources **Actions** /events/name/{name} Methods

Create Method (highlighted)

RESOURCE ACTIONS: Create Resource, Enable CORS, Edit Resource Documentation, Delete Resource

API ACTIONS: Deploy API, Import API, Edit API Documentation, Delete API

No methods defined for the resource.

Resources **Actions** /events Methods

No methods defined for the resource.

Resources tree: / > /events > **GET** (highlighted)

Resources **Actions** **/events - GET - Setup**

Choose the integration point for your new method.

Integration type

- Lambda Function ⓘ
- HTTP ⓘ
- Mock ⓘ
- AWS Service ⓘ

Use HTTP Proxy integration ⓘ

HTTP method GET

Endpoint URL

Content Handling Passthrough ⓘ

Resources **Actions** **/events/id/{id} - GET - Setup**

Choose the integration point for your new method.

Integration type

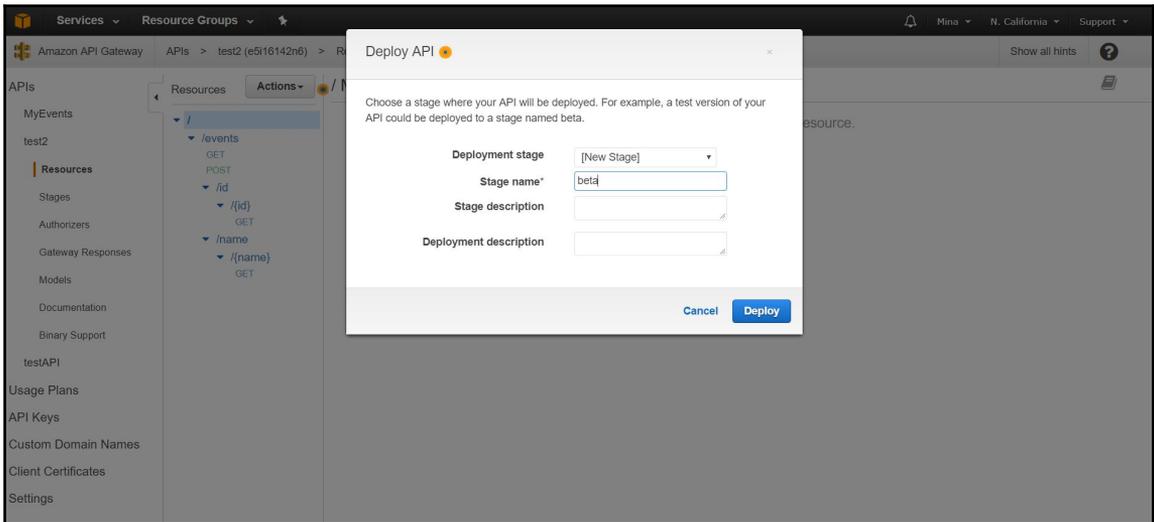
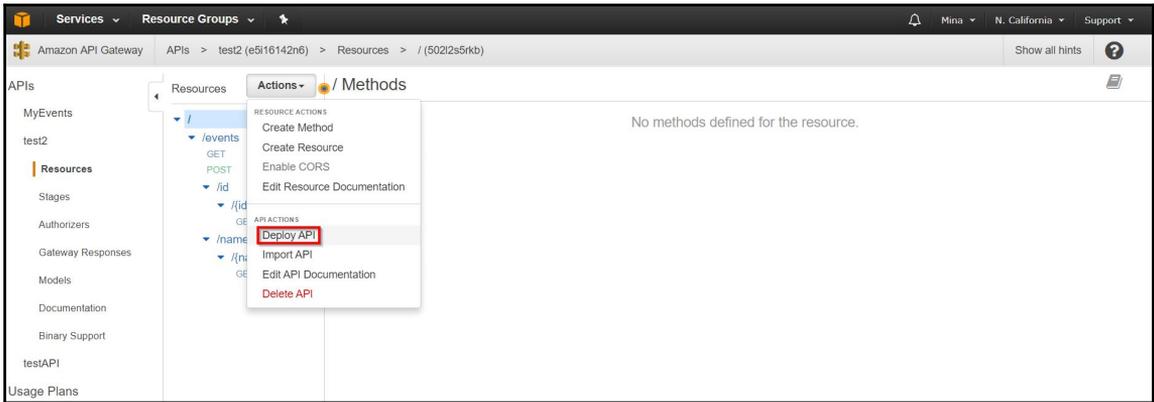
- Lambda Function ⓘ
- HTTP ⓘ
- Mock ⓘ
- AWS Service ⓘ

Use HTTP Proxy integration ⓘ

HTTP method GET

Endpoint URL

Content Handling Passthrough ⓘ



aws Services Resource Groups

Amazon API Gateway APIs > test2 (e516142n6) > Stages > beta > /events > GET

APIs

- MyEvents
- test2
 - Resources
 - Stages**
 - Authorizers
 - Gateway Responses
 - Models
 - Documentation
 - Dashboard
 - Settings
 - test3
 - testAPI

Stages

- beta
 - /events
 - POST
 - GET
 - /events/id
 - GET
 - /events/name
 - GET

beta - GET - /events

Invoke URL: <https://e516142n6.execute-api.us-west-1.amazonaws.com/beta/events>

Use this page to override the beta stage settings for the GET to /events method.

Settings Inherit from stage Override for this method

Save Changes

▼ All services

- Compute**
 - EC2
 - EC2 Container Service
 - Lightsail
 - Elastic Beanstalk
 - Lambda
 - Batch
- Developer Tools**
 - CodeStar
 - CodeCommit
 - CodeBuild
 - CodeDeploy
 - CodePipeline
 - X-Ray
- Internet of Things**
 - AWS IoT
 - AWS Greengrass
- Contact Center**
 - Amazon Connect
- Storage**
 - S3
 - EFS
 - Glacier
 - Storage Gateway
- Management Tools**
 - CloudWatch
 - CloudFormation
 - CloudTrail
 - Config
 - OpsWorks
 - Service Catalog
 - Trusted Advisor
 - Managed Services
- Game Development**
 - Amazon GameLift
- Database**
 - RDS
 - DynamoDB**
 - ElastiCache
 - Amazon Redshift
- Mobile Services**
 - Mobile Hub
 - Cognito
 - Device Farm
 - Mobile Analytics
 - Pinpoint
- Security, Identity & Compliance**
 - IAM
 - Inspector
 - Certificate Manager
 - Directory Service
 - WAF & Shield
 - Artifact
 - Amazon Macie
- Networking & Content Delivery**
 - VPC
 - CloudFront
 - Direct Connect
 - Route 53
- Application Services**
 - Step Functions
 - SWF
 - API Gateway
 - Elastic Transcoder

aws Services Resource Groups

DynamoDB

- Dashboard
- Tables
- Reserved capacity

DAX

- Dashboard
- Clusters
- Subnet groups
- Parameter groups
- Events

Create table

Amazon DynamoDB is a fully managed non-relational database service that provides fast and predictable performance with seamless scalability.

Create table

Recent alerts

No CloudWatch alarms have been triggered. [View all in CloudWatch](#)

Total capacity for US West (N. California)

Provisioned read capacity	10
Provisioned write capacity	10
Reserved read capacity	0
Reserved write capacity	0

Service health

Current Status

- ✓ Amazon DynamoDB (N. California)

Create DynamoDB table

[Tutorial](#)

DynamoDB is a schema-less database that only requires a table name and primary key. The table's primary key is made up of one or two attributes that uniquely identify items, partition the data, and sort data within each partition.

Table name*

Primary key* Partition key

▾

Add sort key

Table settings

Default settings provide the fastest way to get started with your table. You can modify these default settings now or after your table has been created.

Use default settings

- No secondary indexes.
- Provisioned capacity set to 5 reads and 5 writes.
- Basic alarms with 80% upper threshold using SNS topic "dynamodb".



Binary ▾

 Add sort key

Table settings

Default settings provide the fastest way to get started with your table. You can modify these default settings now or after your table has been created.

 Use default settings

- No secondary indexes.
- Provisioned capacity set to 5 reads and 5 writes.
- Basic alarms with 80% upper threshold using SNS topic "dynamodb".



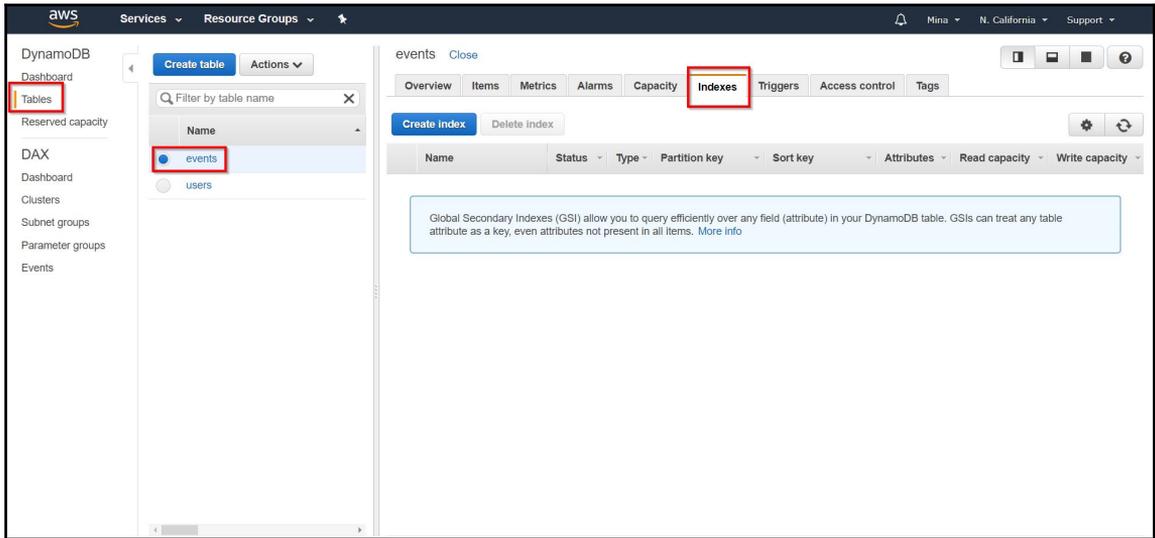
You do not have the required role to enable Auto Scaling by default.

Please refer to [documentation](#).

Additional charges may apply if you exceed the AWS Free Tier levels for CloudWatch or Simple Notification Service. Advanced alarm settings are available in the CloudWatch management console.

Cancel

Create



Create index

Primary key* Partition key

EventName String ⓘ

Add sort key

Index name* EventName-index ⓘ

Projected attributes All ⓘ

Read capacity units 5

Write capacity units 5

Estimated cost \$3.24 / month ([Capacity calculator](#))

Approximate creation time is **5 minutes**. Additional write capacity may decrease creation time. A notification will be sent to the SNS topic dynamodb once the index creation is complete. Basic Alarms with 80% upper threshold using SNS topic 'dynamodb' will be automatically created. Additional charges may apply if you exceed the AWS Free Tier levels for CloudWatch or Simple Notification Service. Advanced configuration for alarms can be done in the alarms tab.

Cancel **Create index**

```
└─ src
  ├── bookingservice
  ├── contracts
  ├── eventservice
  ├── frontend
  └─ lib
    ├── configuration
    ├── helper
    ├── msgqueue
    └─ persistence
      ├── dblayer
      └─ dynamolayer
        └─ dynamolayer.go
```

Chapter 9: Continuous Delivery

```
1. mhelmich@mhelmich-macbook: ~/Entwicklung/go-workspace/src/bitbucket.org/minamartinteam/myevents (zsh)
mhelmich@mhelmich-macbook myevents master glide init .
[INFO] Generating a YAML configuration file and guessing the dependencies
[INFO] Attempting to import from other package managers (use --skip-import to skip)
[INFO] Scanning code to look for dependencies
[INFO] --> Found reference to github.com/Shopify/sarama
[INFO] --> Found reference to github.com/aws/aws-sdk-go/service/dynamodb
[INFO] --> Found reference to github.com/gorilla/handlers
[INFO] --> Found reference to github.com/gorilla/mux
[INFO] --> Found reference to github.com/mitchellh/mapstructure
[INFO] --> Found reference to github.com/nu7hatch/gouid
[INFO] --> Found reference to github.com/streadway/amqp
[INFO] --> Found reference to gopkg.in/mgo.v2
[INFO] --> Adding sub-package bson to gopkg.in/mgo.v2
[INFO] Writing configuration file (glide.yaml)
[INFO] Would you like Glide to help you find ways to improve your glide.yaml configuration?
[INFO] If you want to revisit this step you can use the config-wizard command at any time.
[INFO] Yes (Y) or No (N)?
y
[INFO] Looking for dependencies to make suggestions on
[INFO] --> Scanning for dependencies not using version ranges
[INFO] --> Scanning for dependencies using commit ids
[INFO] Gathering information on each dependency
[INFO] --> This may take a moment. Especially on a codebase with many dependencies
[INFO] --> Gathering release information for dependencies
[INFO] --> Looking for dependency imports where versions are commit ids
[INFO] Here are some suggestions...
[INFO] The package github.com/Shopify/sarama appears to have Semantic Version releases (http://semver.org).
[INFO] The latest release is v1.11.0. You are currently not using a release. Would you like
[INFO] to use this release? Yes (Y) or No (N)
```

```
1. glide update (glide)
mhelmich@mhelmich-macbook myevents master glide update
[INFO] Downloading dependencies. Please wait...
[INFO] --> Fetching github.com/gorilla/mux.
[INFO] --> Fetching updates for github.com/streadway/amqp.
[INFO] --> Fetching gopkg.in/mgo.v2.
[INFO] --> Fetching github.com/Shopify/sarama.
[INFO] --> Fetching github.com/aws/aws-sdk-go.
[INFO] --> Fetching github.com/gorilla/handlers.
[INFO] --> Fetching github.com/mitchellh/mapstructure.
[INFO] --> Fetching github.com/nu7hatch/gouid.
[INFO] --> Detected semantic version. Setting version for github.com/gorilla/handlers to v1.2.
[INFO] --> Detected semantic version. Setting version for github.com/Shopify/sarama to v1.11.0.
[INFO] --> Detected semantic version. Setting version for github.com/gorilla/mux to v1.3.0.
[INFO] --> Detected semantic version. Setting version for github.com/aws/aws-sdk-go to v1.8.19.
[INFO] Resolving imports
[INFO] --> Fetching github.com/davecgh/go-spew.
[INFO] --> Fetching github.com/eapache/go-resiliency.
[INFO] --> Fetching github.com/eapache/go-xerial-snappy.
[INFO] --> Fetching github.com/eapache/queue.
[INFO] --> Fetching github.com/klauspost/crc32.
[INFO] --> Fetching github.com/pierrec/lz4.
[INFO] --> Fetching github.com/rcrowley/go-metrics.
[INFO] --> Fetching github.com/gorilla/context.
[INFO] --> Fetching github.com/golang/snappy.
[INFO] --> Fetching github.com/pierrec/xxHash.
[INFO] --> Fetching github.com/jmespath/go-jmespath.
```

Martin Helmich - Profile - Travis CI

Travis CI GmbH [DE] | <https://travis-ci.org/profile/martin-helmich>

Travis CI | Blog | Status | Help | Martin Helmich

Martin Helmich
Repositories 67
Token:

Beta Features
[See what's new!](#)

Organizations
 Mittwald CM Service
Repositories 27

Is an organization missing?
[Review and add your authorized organizations.](#)

Martin Helmich

[Sync account](#)

We're only showing your public repositories. You can find your private projects on travis-ci.com.

- Flick the repository switch on
- Add .travis.yml file to your repository
- Trigger your first build with a git push

- martin-helmich/myevents
- martin-helmich/myevents-frontend

mittwald/kubernetes-secret x
Travis CI GmbH [DE] | https://travis-ci.org/martin-helmich/myevents

Travis CI Blog Status Help Martin Helmich

Search all repositories

martin-helmich / myevents build passing

My Repositories +

- ✓ martin-helmich/myevents # 11
Duration: 6 min 43 sec
Finished: 5 minutes ago
- ✓ mittwald/typo3_forum # 220
Duration: 2 min 51 sec
Finished: 5 days ago
- ✓ martin-helmich/martin-helmich # 42
Duration: 2 min 12 sec
Finished: 15 days ago
- ✓ mittwald/kubernetes-secret # 11
Duration: 6 min 43 sec
Finished: 18 days ago
- ✓ martin-helmich/typo3-typoscr # 97

Current Branches Build History Pull Requests More options

✓ master Provide correct deployment example #11 passed Restart build

- Commit 8e6401a
- Compare dbb245e..8e6401a
- Branch master
- Martin Helmich authored and committed

Ran for 2 min 56 sec
Total time 6 min 43 sec
5 minutes ago

Build Jobs

✓ # 11.1	Go: 1.6	no environment variables set	2 min 25 sec
✓ # 11.2	Go: 1.7	no environment variables set	2 min 33 sec
✓ # 11.3	Go: 1.8	no environment variables set	1 min 45 sec

Job #11.3 - mittwald/kuberne: x Martin

Travis CI GmbH [DE] | <https://travis-ci.org/martin-helmich/myevents/jobs/220913146>

Duration: 2 min 12 sec
Finished: 15 days ago

✓ mittwald/kubernetes-secret-g: # 11
Duration: 6 min 43 sec
Finished: 18 days ago

✓ martin-helmich/typo3-typo3cr: # 97
Duration: 5 min 44 sec
Finished: 20 days ago

✗ mittwald/typo3-web2pdf: # 44
Duration: 11 min 34 sec
Finished: 25 days ago

✗ mittwald/salt-microservices: # 75
Duration: 1 min 45 sec
Finished: about a month ago

✓ mittwald/typo3-varnishcache: # 7
Duration: 1 min 50 sec
Finished: about a month ago

✓ martin-helmich/prometheus-r: # 37
Duration: 1 min 32 sec

Remove log Raw log

```

1 Worker information
6 Build system information
73
74 $ export DEBIAN_FRONTEND=noninteractive
110 $ git clone --depth=50 --branch=master https://github.com/martin-helmich/myevents.git
121 $ GIMME_OUTPUT=$(gimme 1.8) && eval "$GIMME_OUTPUT"
122 go version go1.8 linux/amd64
123
124 $ export GOPATH=$HOME/gopath
125 $ export PATH=$HOME/gopath/bin:$PATH
126 $ mkdir -p $HOME/gopath/src/github.com/martin-helmich/myevents
127 $ rsync -az ${TRAVIS_BUILD_DIR}/ $HOME/gopath/src/github.com/martin-helmich/myevents/
128 $ export TRAVIS_BUILD_DIR=$HOME/gopath/src/github.com/martin-helmich/myevents
129 $ cd $HOME/gopath/src/github.com/martin-helmich/myevents
130
131 $ gimme version
132 v0.2.2
133 $ go version
134 go version go1.8 linux/amd64
135 $ go env
136
137 $ true
138
139 $ go vet $(go list ./... | grep -v vendor)
140
141
142 The command "go vet $(go list ./... | grep -v vendor)" exited with 0.
143 $ go build
144
145 The command "go build" exited with 0.
146
147
148 Done. Your build exited with 0.

```

martin-helmich / myevents build passing

Current Branches Pull Requests

✓ **master** Provide correct deployment example -O- #11 passed

Commit 8e6401a Ran for 2 min 56 sec

Compare dbb245e..8e6401a Total time 6 min 43 sec

More options

Settings

Requests

Caches

Environment Variables

Notice that the values are not escaped when your builds are executed. Special characters (for bash) should be escaped accordingly.

DOCKER_PASSWORD [lock icon] [trash icon]

DOCKER_USER OFF Display value in build log Add

GitLab

Nicht sicher 192.168.2.125/users/password/edit?reset_password_token=hQyeWPGQm_JH9Vx-ykLK

Martin

Please create a password for your new account.

GitLab Community Edition

Open source software to collaborate on code

Manage Git repositories with fine-grained access controls that keep your code secure. Perform code reviews and enhance collaboration with merge requests. Each project can also have an issue tracker and a wiki.

Change your password

New password

Confirm new password

Change your password

Didn't receive a confirmation email? [Request a new one](#)

Already have login and password? [Sign in](#)

[Explore](#) [Help](#) [About GitLab](#)

New Project - GitLab

192.168.2.125/projects/new

Martin

Projects

Search

New project

Create or Import your project from popular Git services

Project path:

Project name:

Want to house several dependent projects under the same namespace? [Create a group](#)

Import project from

Project description (optional)

Description format

Visibility Level [?](#)

Private
Project access must be granted explicitly to each user.

Internal
The project can be cloned by any logged in user.

Public
The project can be cloned without any authentication.

Files - master - Administrator / x

192.168.2.125/root/myevents-frontend/tree/master

Administrator / myevents-frontend

This project Search

Project **Repository** Issues 0 Merge Requests 0 Pipelines Wiki Snippets Settings

Files Commits Branches Tags Contributors Graph Compare Charts

master myevents-frontend / Find file

Name	Last commit > adb5c746 about a minute ago - Fix Dockerfile History	Last Update
src	Finalize booking form	3 weeks ago
.gitignore	Initial commit	3 weeks ago
Dockerfile	Fix Dockerfile	about a minute ago
index.html	Finalize booking form	3 weeks ago
package.json	Initial commit	3 weeks ago
tsconfig.json	Initial commit	3 weeks ago
webpack.config.js	Initial commit	3 weeks ago

Admin Area - GitLab

192.168.2.125/admin/runners

Admin Area

Search

Overview Monitoring Messages System Hooks Applications Abuse Reports 0

Overview Projects Users Groups Jobs **Runners** Cohorts

To register a new Runner you should enter the following registration token. With this token the Runner will request a unique Runner token and use that for future communication.
Registration token is **zrQM56xxJSVc_Ga6TYQR**

You can reset runners registration token by pressing a button below.

Reset runners registration token

A 'Runner' is a process which runs a job. You can setup as many Runners as you need. Runners can be placed on separate users, servers, even on your local machine.

Each Runner can be in one of the following states:

- shared** - Runner runs jobs from all unassigned projects
- specific** - Runner runs jobs from assigned projects
- locked** - Runner cannot be assigned to other projects
- paused** - Runner will not receive any new jobs

Runner description or Search

Runners with last contact more than a minute ago: 0

```
1. mhelmich@mhelmich-macbook: ~ (zsh)
mhelmich@mhelmich-macbook ~$ docker container exec gitlab-runner gitlab-runner register -
n --url http://192.168.2.125 --registration-token zrGMS6xxJSVc_Ga6TYQR --executor docker --de
scription "GitLab CI Runner" --docker-image ubuntu:16.04
Running in system-mode.

Registering runner... succeeded                                runner=zrGMS6xx
Runner registered successfully. Feel free to start it, but if it's running already the config
should be automatically reloaded!
mhelmich@mhelmich-macbook ~$
```

Admin Area - GitLab

192.168.2.125/admin/runners

A 'Runner' is a process which runs a job. You can setup as many Runners as you need. Runners can be placed on separate users, servers, even on your local machine.

Each Runner can be in one of the following states:

- shared** - Runner runs jobs from all unassigned projects
- specific** - Runner runs jobs from assigned projects
- locked** - Runner cannot be assigned to other projects
- paused** - Runner will not receive any new jobs

Runner description or Search Runners with last contact more than a minute ago: 1

Type	Runner token	Description	Version	Projects	Jobs	Tags	Last contact	
shared	83596902	c1dbba267b2b	1.11.4	n/a	0		3 minutes ago	Edit Pause Remove

Pipelines - Administrator / mye

192.168.2.125/root/myevents/pipelines

Martin Helmich / myevents

This project Search

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Pipelines Jobs Environments Charts

All 2 Pending 0 Running 0 Finished 2 Branches Tags [Run Pipeline](#) [CI Lint](#)

Status	Pipeline	Commit	Stages	
passed	#2 by latest	master -> af7aeb03 Fix Gitlab, again	✓	00:00:16 7 minutes ago
failed	#1 by latest	master -> 3be75880 Add Gitlab CI config	✗	00:00:19 16 minutes ago

build:eventservice (#4) · Jobs x

192.168.2.125/root/myevents/builds/4

Martin Helmich / myevents

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passed Job #4 in pipeline #2 for commit af7aeb03 from master by Martin Helmich 10 minutes ago [Retry job](#)

```

Running with gitlab-ci-multi-runner 1.11.4 (7e2b646)
  on a688f6e9cabb (d740d3d4)
Using Docker executor with image golang:1.8.1 ...
Pulling docker image golang:1.8.1 ...
Running on runner-d740d3d4-project-1-concurrent-0 via a600f6a9cabb...
Fetching changes...
Removing src/eventservice/eventservice
HEAD is now at 3be7588 Add Gitlab CI config
From http://192.168.2.125/root/myevents
  3be7588.af7aeb0 master -> origin/master
Checking out af7aeb03 as master...
Skipping Git submodules setup
$ mkdir -p $GOPATH/src/bitbucket.org/minamartinteam
$ ln -nfs $PWD $GOPATH/src/bitbucket.org/minamartinteam/myevents
$ cd $GOPATH/src/bitbucket.org/minamartinteam/myevents/src/eventservice
$ CGO_ENABLED=0 go build
Uploading artifacts...
src/eventservice/eventservice: found 1 matching files
Uploading artifacts to coordinator... ok      id=4 responseStatus=201 Created token=Fc9TrLCZ
Job succeeded
  
```

Job artifacts
The artifacts will be removed in 4 weeks
[Keep](#) [Download](#) [Browse](#)

Job details
Duration: 16 seconds
Finished: 10 minutes ago
Runner: #2
[Raw](#) [Erase](#)

Commit title
Fix Gitlab, again

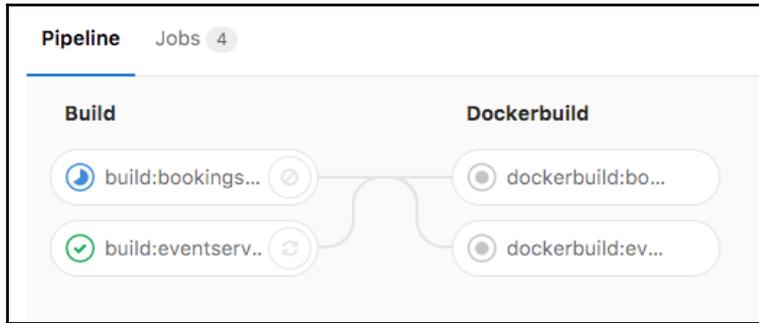
→ build:eventservice

Pipeline Jobs 2

Build

[build:bookings...](#)

[build:eventserv..](#)



CI/CD Pipelines - Administrator x Martin

192.168.2.125/root/myevents/settings/ci_cd

Secret Variables

These variables will be set to environment by the runner.

So you can use them for passwords, secret keys or whatever you want.

The value of the variable can be visible in job log if explicitly asked to do so.

Add a variable

Key

DOCKER_USER

Value

martinhelmich

Add new variable

Your variables (1)

Key	Value	
DOCKER_PASSWORD	*****	

Reveal Values

Pipeline Administrator / myevents

192.168.2.125/root/myevents/pipelines/10

Martin Helmich / myevents

This project Search

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Pipelines Jobs Environments Charts

running Pipeline #10 triggered about a minute ago by Martin Helmich Cancel running

Configure Kubernetes deployment

6 jobs from v1.0.2 (queued for 2 seconds)

b734c530

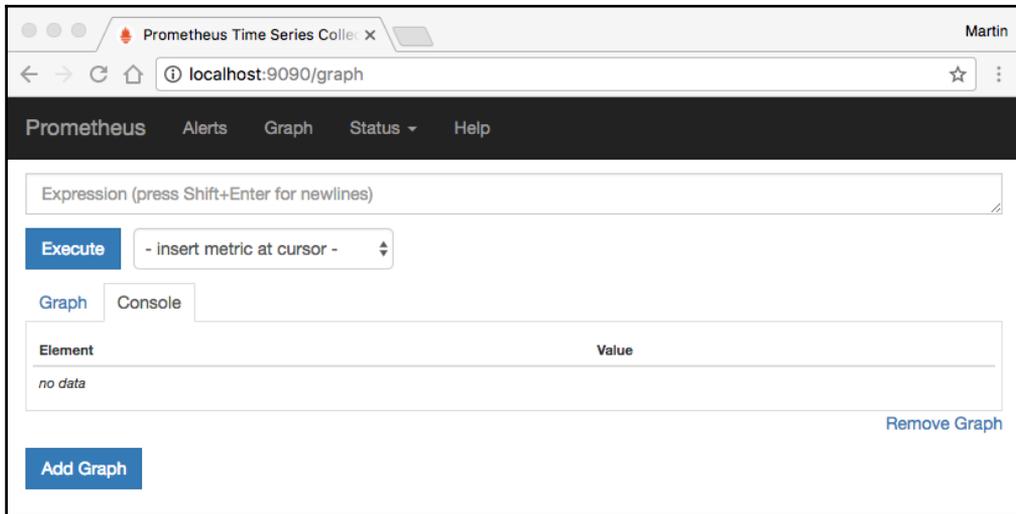
Pipeline Jobs 6

Build **Dockerbuild** **Publish** **Deploy**

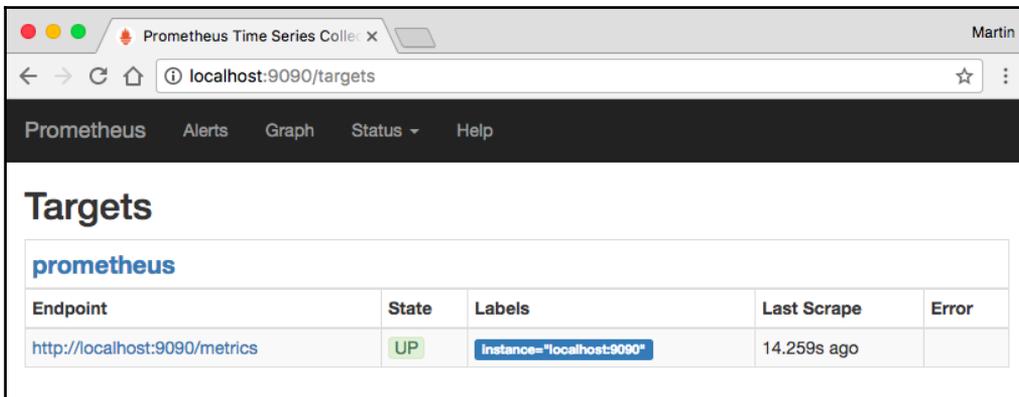
build:bookings... dockerbuild:bo... publish deploy

build:eventserv... dockerbuild:ev...

Chapter 10: Monitoring Your Application

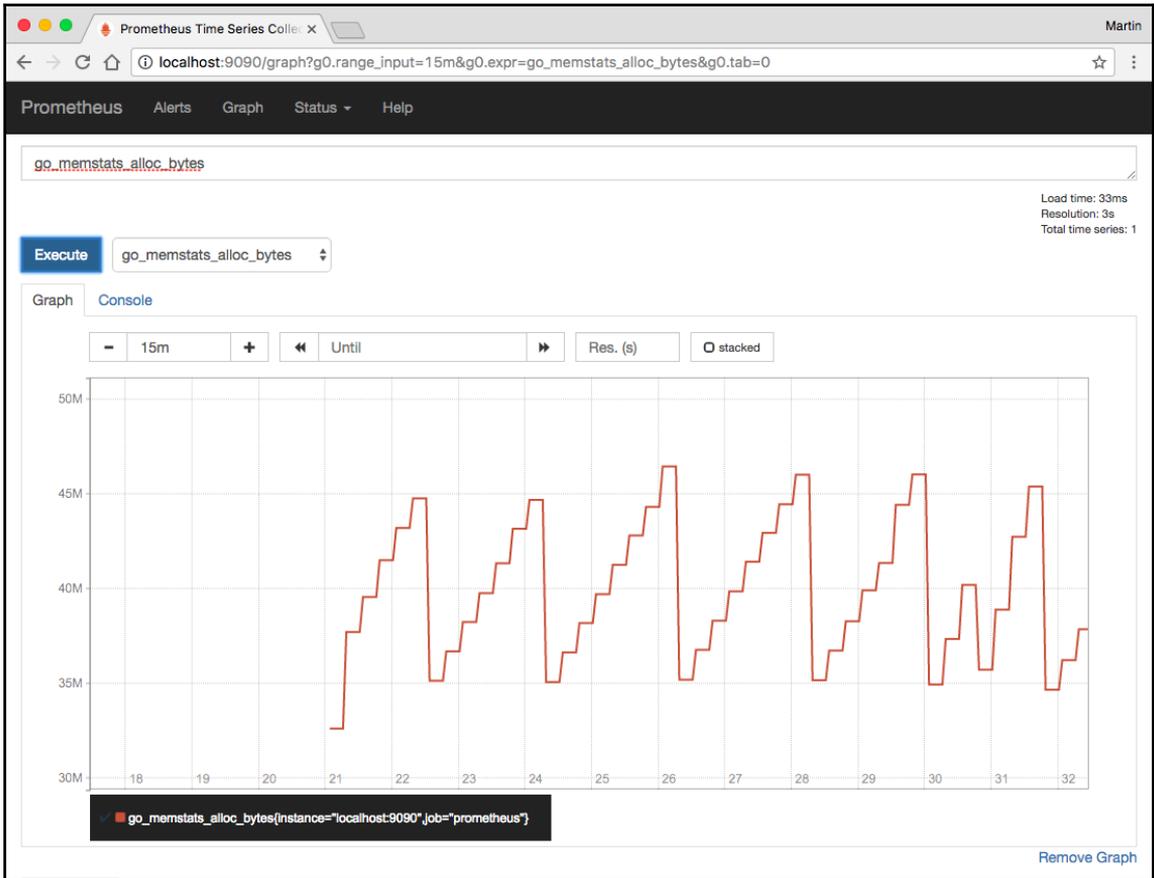


The screenshot shows the Prometheus web interface at localhost:9090/graph. The browser title is "Prometheus Time Series Collector" and the user is "Martin". The address bar shows "localhost:9090/graph". The navigation menu includes "Prometheus", "Alerts", "Graph", "Status", and "Help". The main area has a text input for "Expression (press Shift+Enter for newlines)", an "Execute" button, and a dropdown menu currently showing "- insert metric at cursor -". Below this are tabs for "Graph" and "Console". The "Graph" tab is active, showing a table with two columns: "Element" and "Value". The table contains one row with the value "no data". There is a "Remove Graph" link and an "Add Graph" button at the bottom.



The screenshot shows the Prometheus web interface at localhost:9090/targets. The browser title is "Prometheus Time Series Collector" and the user is "Martin". The address bar shows "localhost:9090/targets". The navigation menu includes "Prometheus", "Alerts", "Graph", "Status", and "Help". The main area has a heading "Targets" and a sub-heading "prometheus". Below this is a table with the following data:

Endpoint	State	Labels	Last Scrape	Error
http://localhost:9090/metrics	UP	instance="localhost:9090"	14.259s ago	





Grafana - Home

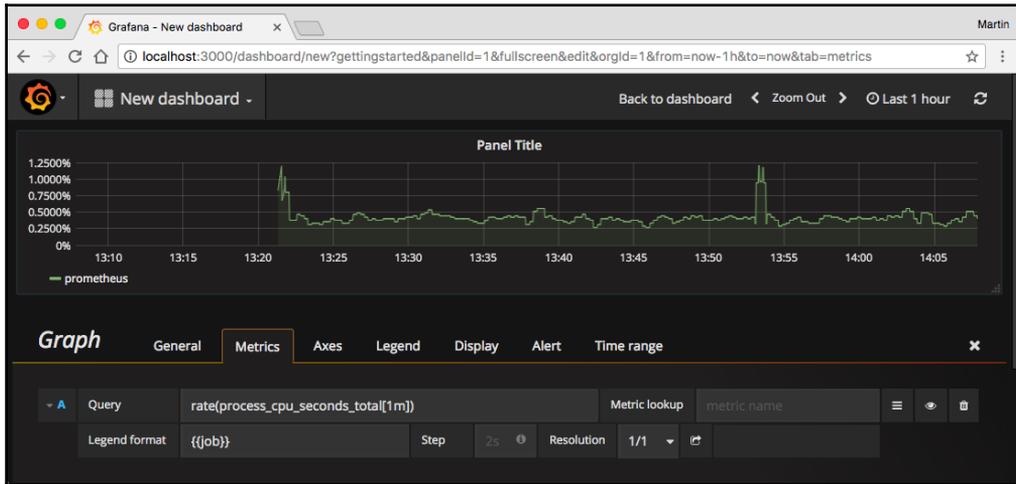
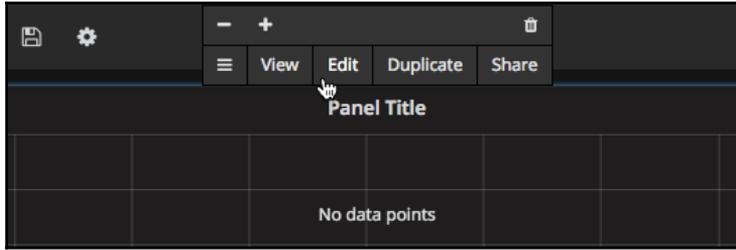
localhost:3000/?orgId=1

Home Zoom Out Last 6 hours

Home Dashboard

Getting Started with Grafana

- Install Grafana
- Add data source**
- Create your first dashboard
- Invite your team
- Install apps & plugins



```
localhost:9100/metrics
# TYPE go_goroutines gauge
go_goroutines 11
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 975448
# HELP go_memstats_alloc_bytes_total Total number of bytes allocated, even if freed.
# TYPE go_memstats_alloc_bytes_total counter
go_memstats_alloc_bytes_total 975448
# HELP go_memstats_buck_hash_sys_bytes Number of bytes used by the profiling bucket hash table.
# TYPE go_memstats_buck_hash_sys_bytes gauge
go_memstats_buck_hash_sys_bytes 2483
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 1412
# HELP go_memstats_gc_sys_bytes Number of bytes used for garbage collection system metadata.
# TYPE go_memstats_gc_sys_bytes gauge
go_memstats_gc_sys_bytes 131072
# HELP go_memstats_heap_alloc_bytes Number of heap bytes allocated and still in use.
# TYPE go_memstats_heap_alloc_bytes gauge
go_memstats_heap_alloc_bytes 975448
# HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
# TYPE go_memstats_heap_idle_bytes gauge
go_memstats_heap_idle_bytes 319488
# HELP go_memstats_heap_inuse_bytes Number of heap bytes that are in use.
# TYPE go_memstats_heap_inuse_bytes gauge
go_memstats_heap_inuse_bytes 1.384448e+06
# HELP go_memstats_heap_objects Number of allocated objects.
# TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 11073
```

localhost:9100/metrics x Prometheus Time Series Collector x Martin

localhost:9090/targets

Prometheus Alerts Graph Status Help

Targets

bookingservice

Endpoint	State	Labels	Last Scrape	Error
http://bookings:9100/metrics	UP	Instance="bookings:9100"	3.716s ago	

eventservice

Endpoint	State	Labels	Last Scrape	Error
http://events:9100/metrics	UP	Instance="events:9100"	948ms ago	

prometheus

Endpoint	State	Labels	Last Scrape	Error
http://localhost:9090/metrics	UP	Instance="localhost:9090"	11.213s ago	

localhost:9100/metrics x Grafana - New dashboard x Martin

localhost:3000/dashboard/db/new-dashboard?orgId=1&from=now-15m&to=now

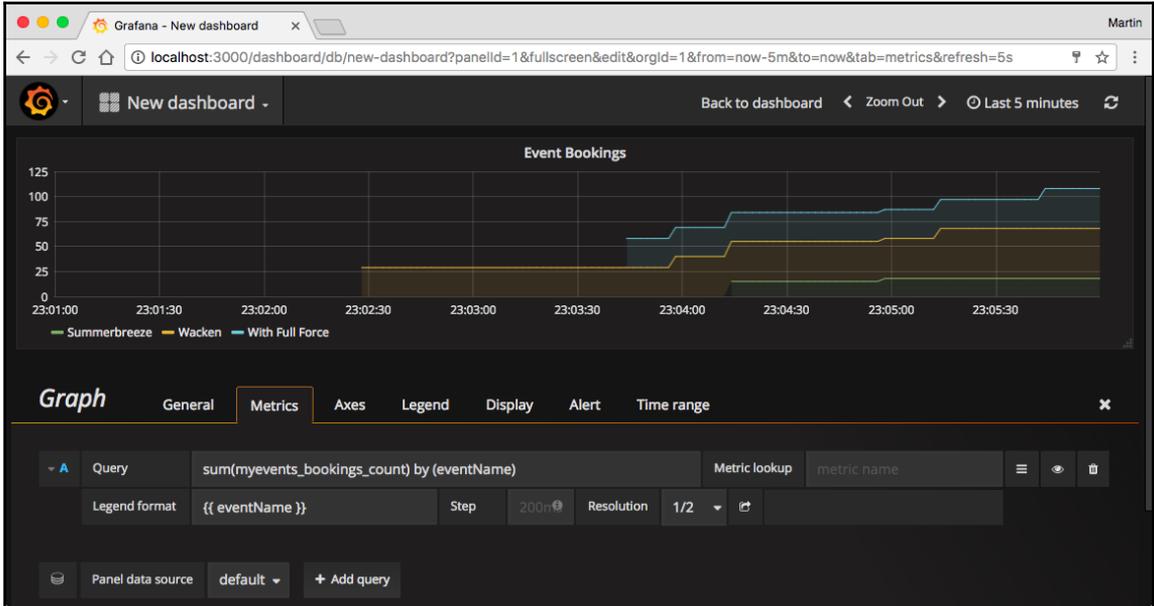
New dashboard Zoom Out Last 15 minutes

The dashboard displays two line graphs for the last 15 minutes. The left graph, 'Service CPU utilization', shows CPU usage for three services: bookingservice (green), eventservice (yellow), and prometheus (blue). The y-axis ranges from 0% to 0.8000%. The right graph, 'Service Memory Usage', shows memory usage in MIB for the same three services. The y-axis ranges from 0 B to 48 MIB. Both graphs show a significant increase in activity starting around 16:58.

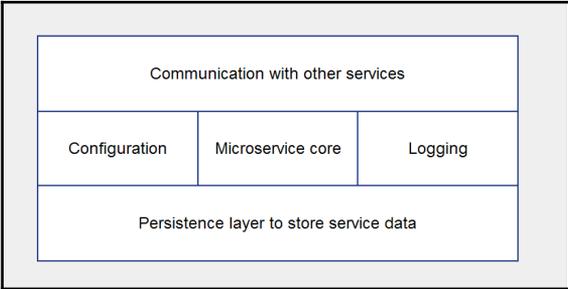
Time	bookingservice (%)	eventservice (%)	prometheus (%)
16:52	0.0000	0.0000	0.0000
16:58	0.4000	0.0500	0.0500
17:00	0.4500	0.0500	0.0500
17:02	0.4000	0.0500	0.0500
17:04	0.5000	0.0500	0.0500

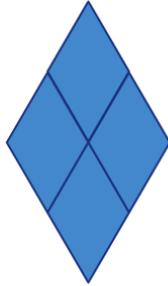
Time	bookingservice (MIB)	eventservice (MIB)	prometheus (MIB)
16:52	0	0	0
16:58	30	2	2
17:00	35	2	2
17:02	38	2	2
17:04	40	2	2

+ ADD ROW

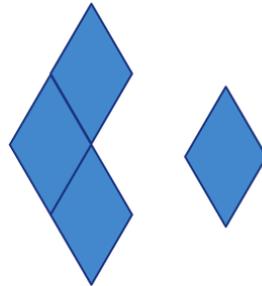


Chapter 11: Migration

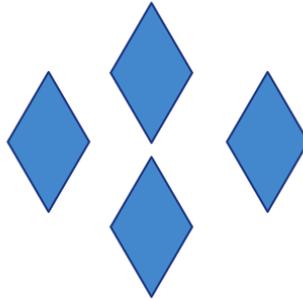




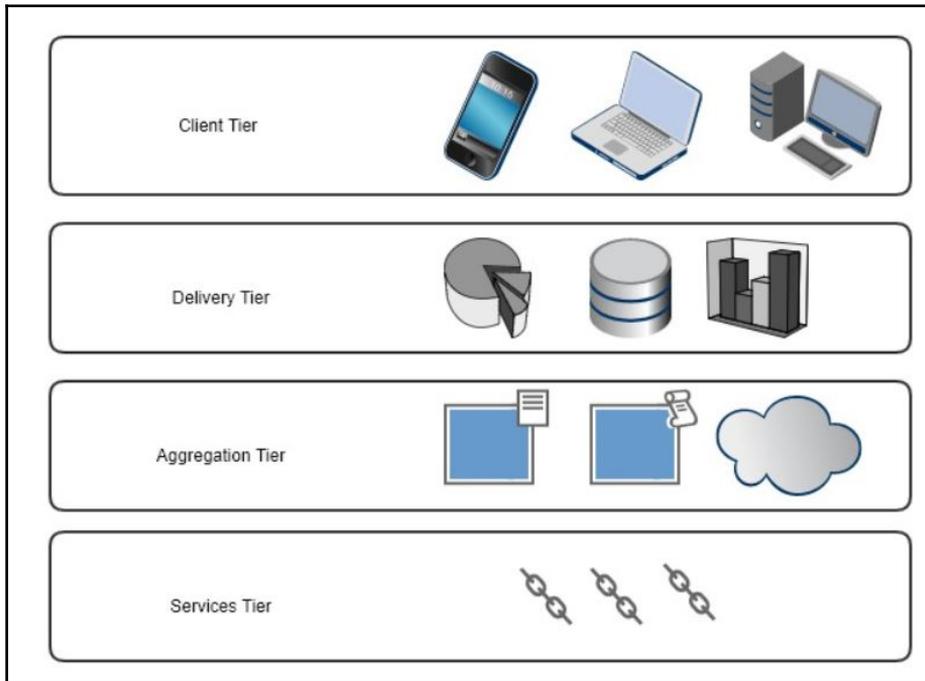
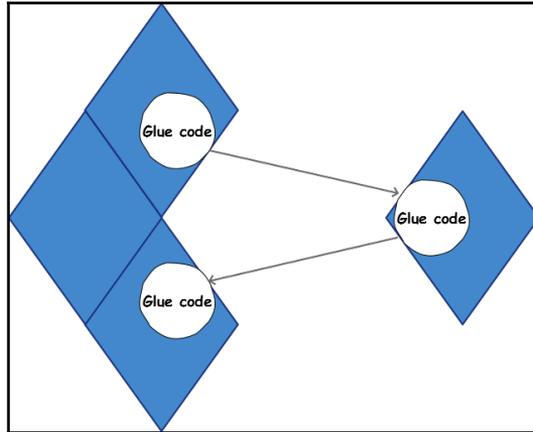
Step1: Monolithic application

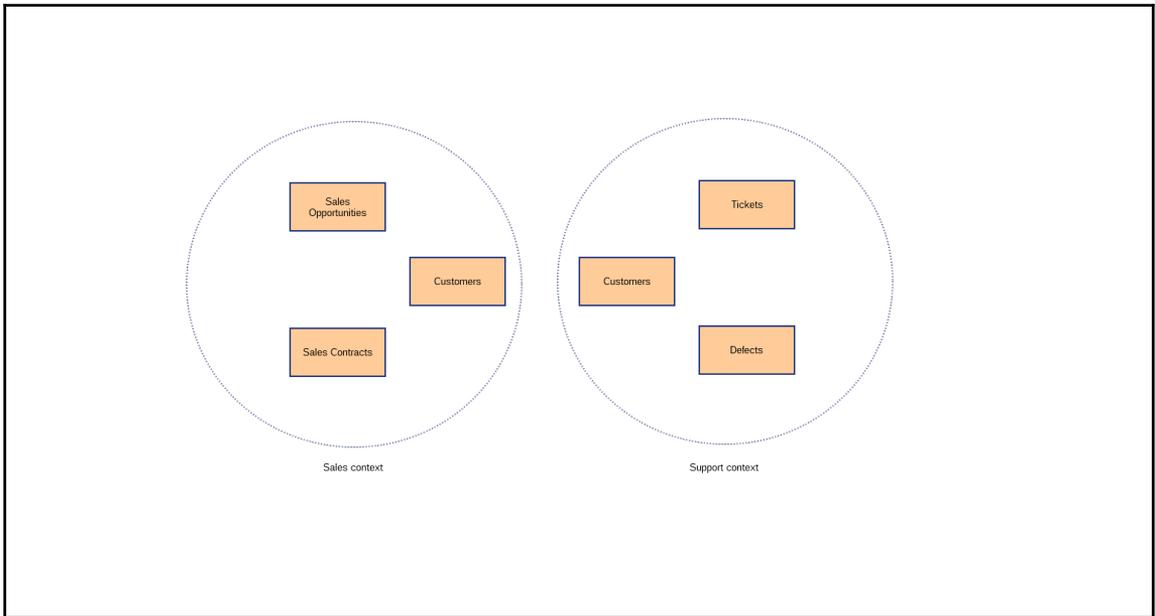
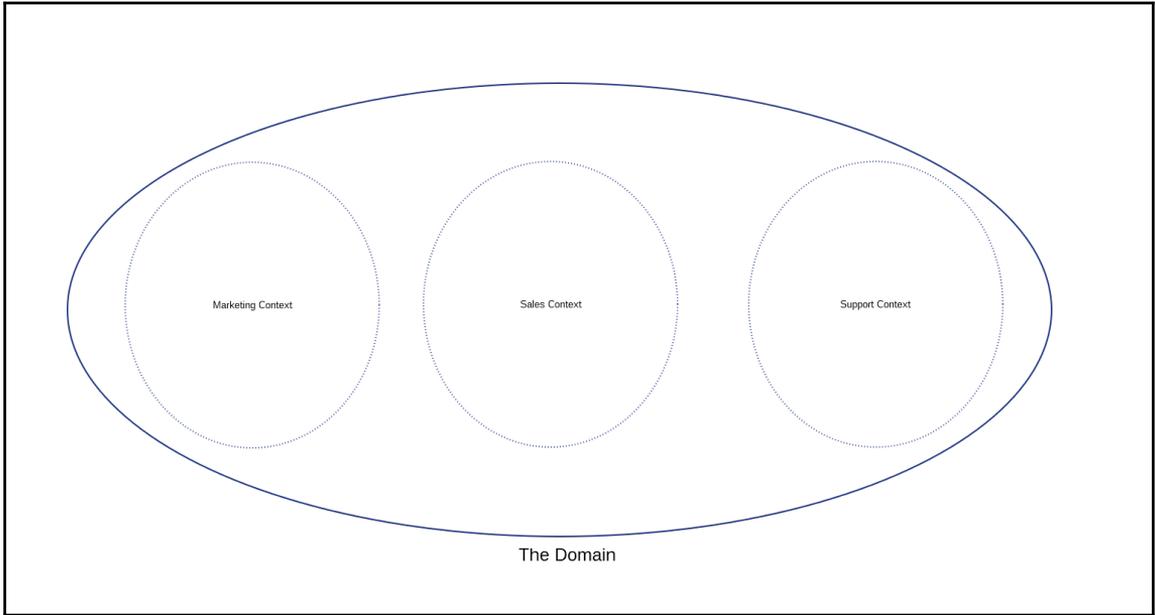


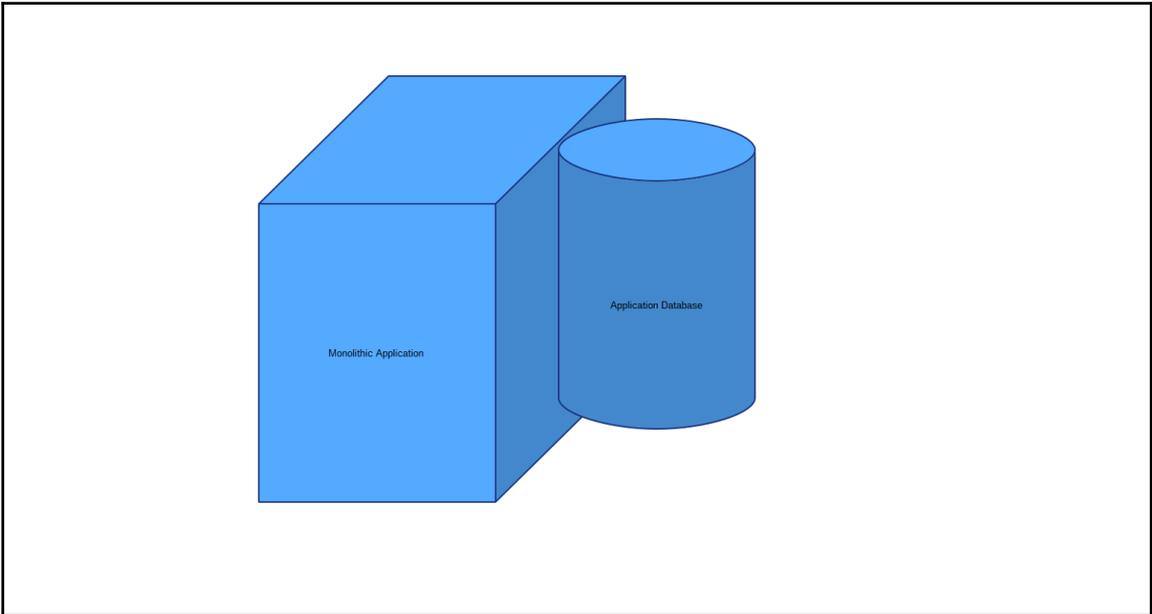
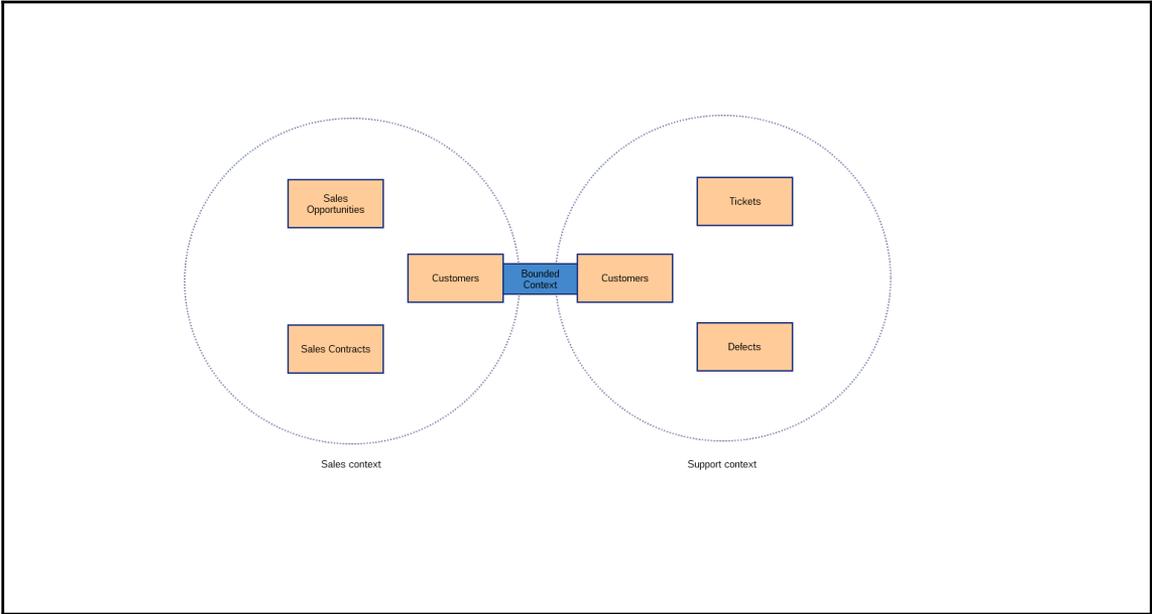
Step 2: Monolithic application + a new microservice

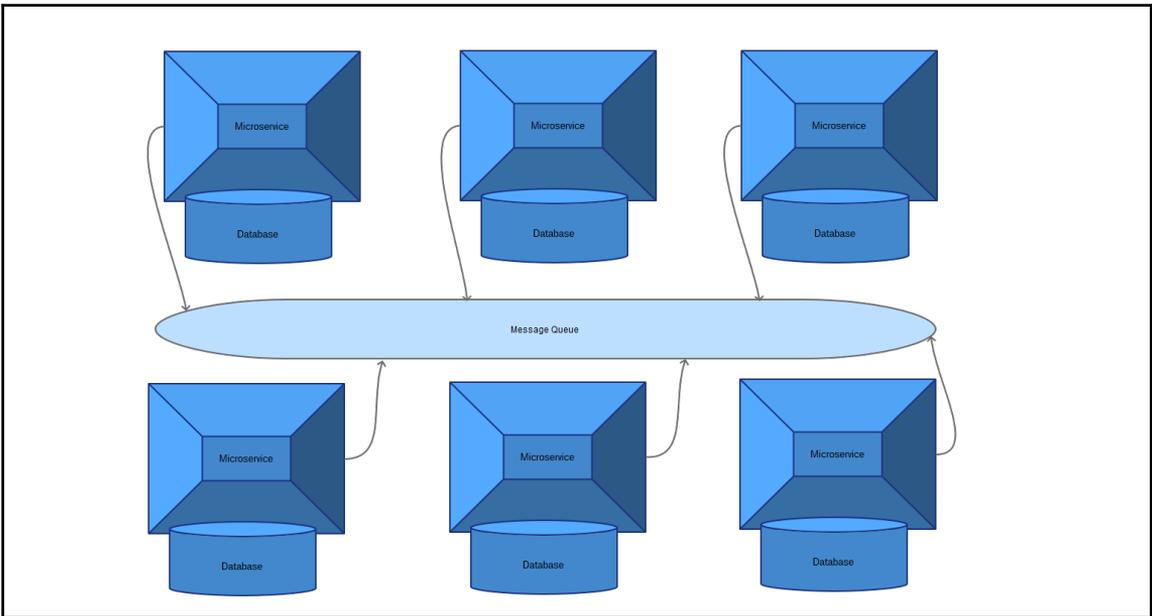
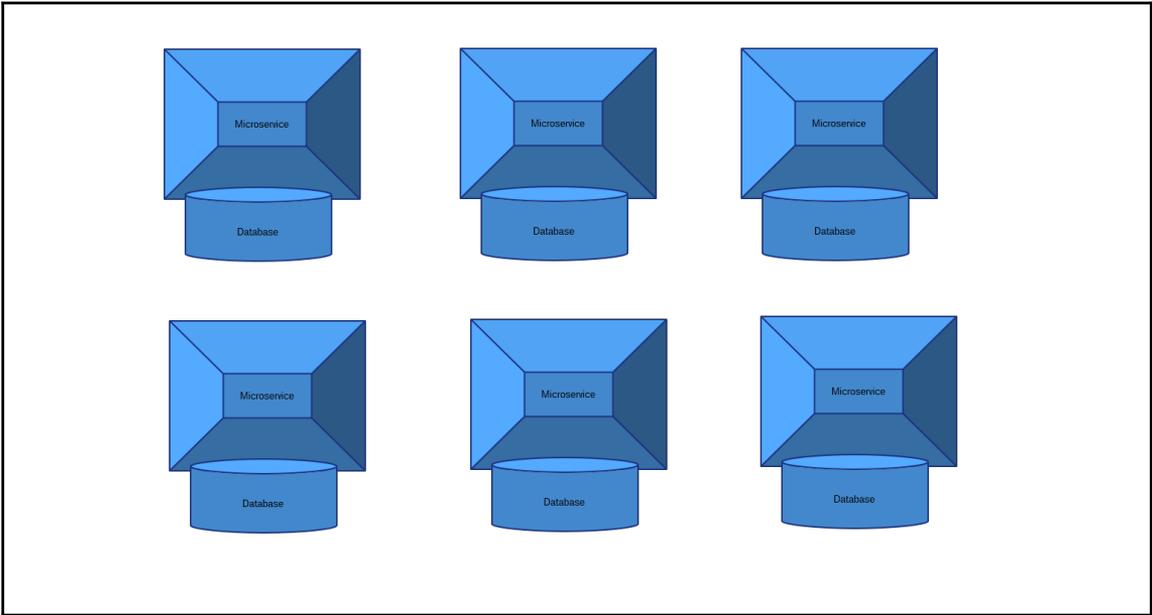


Step N: Microservices









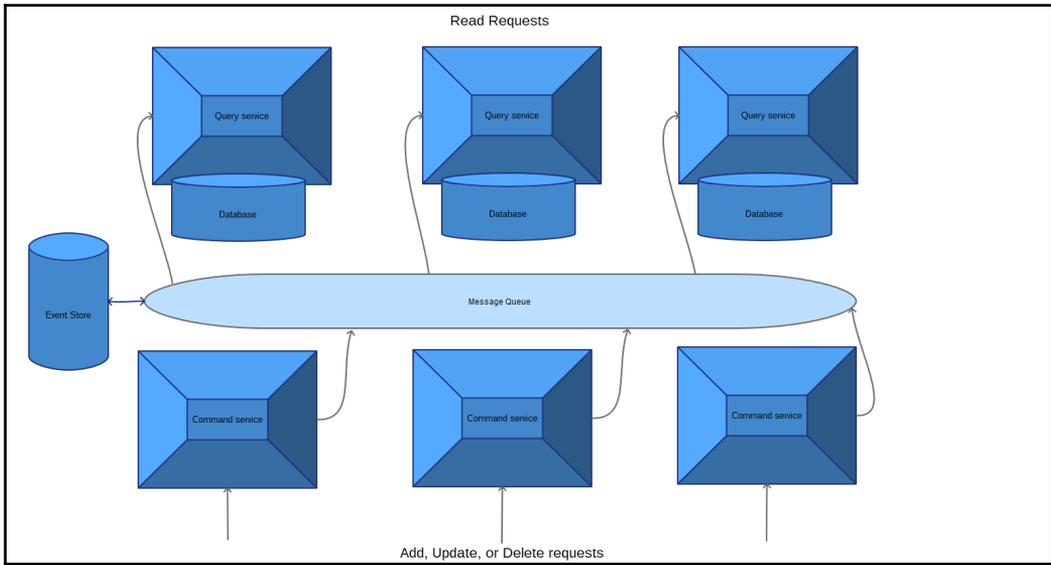
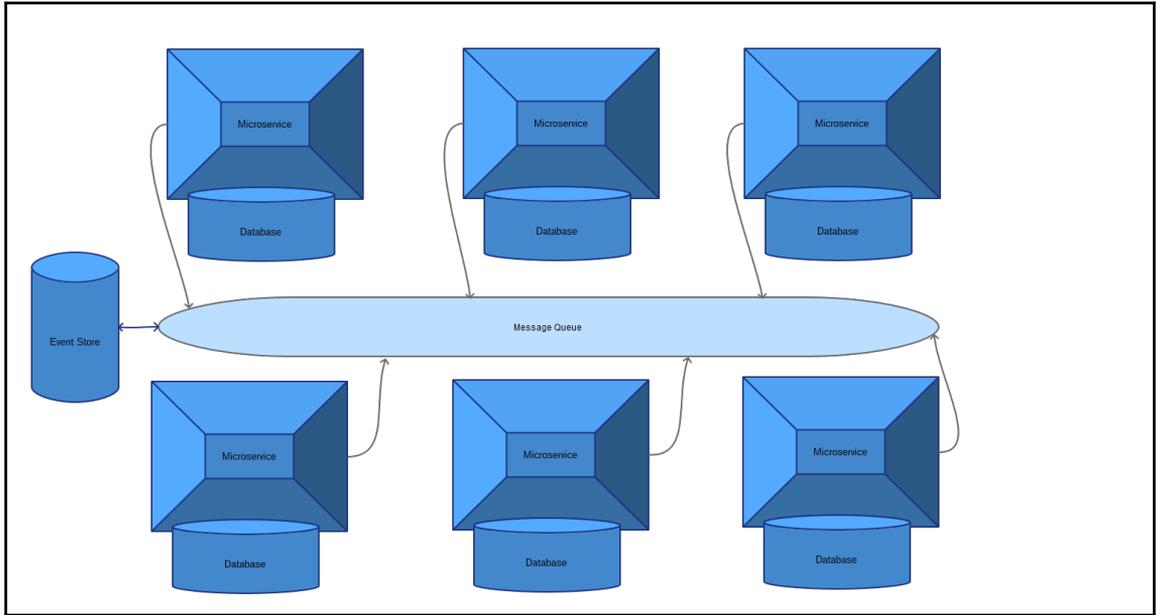


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