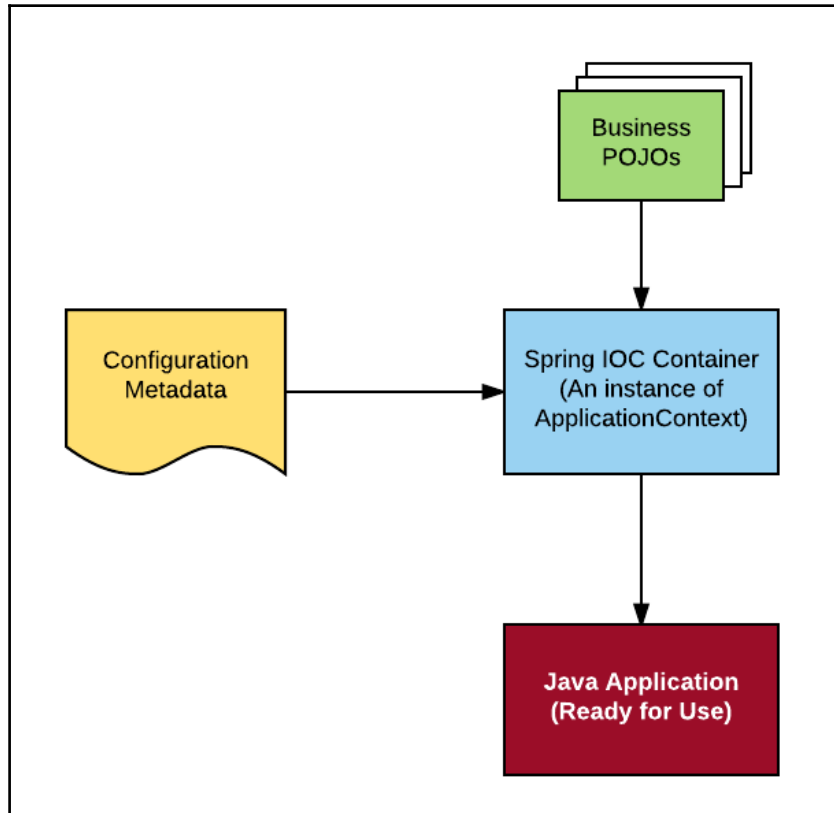
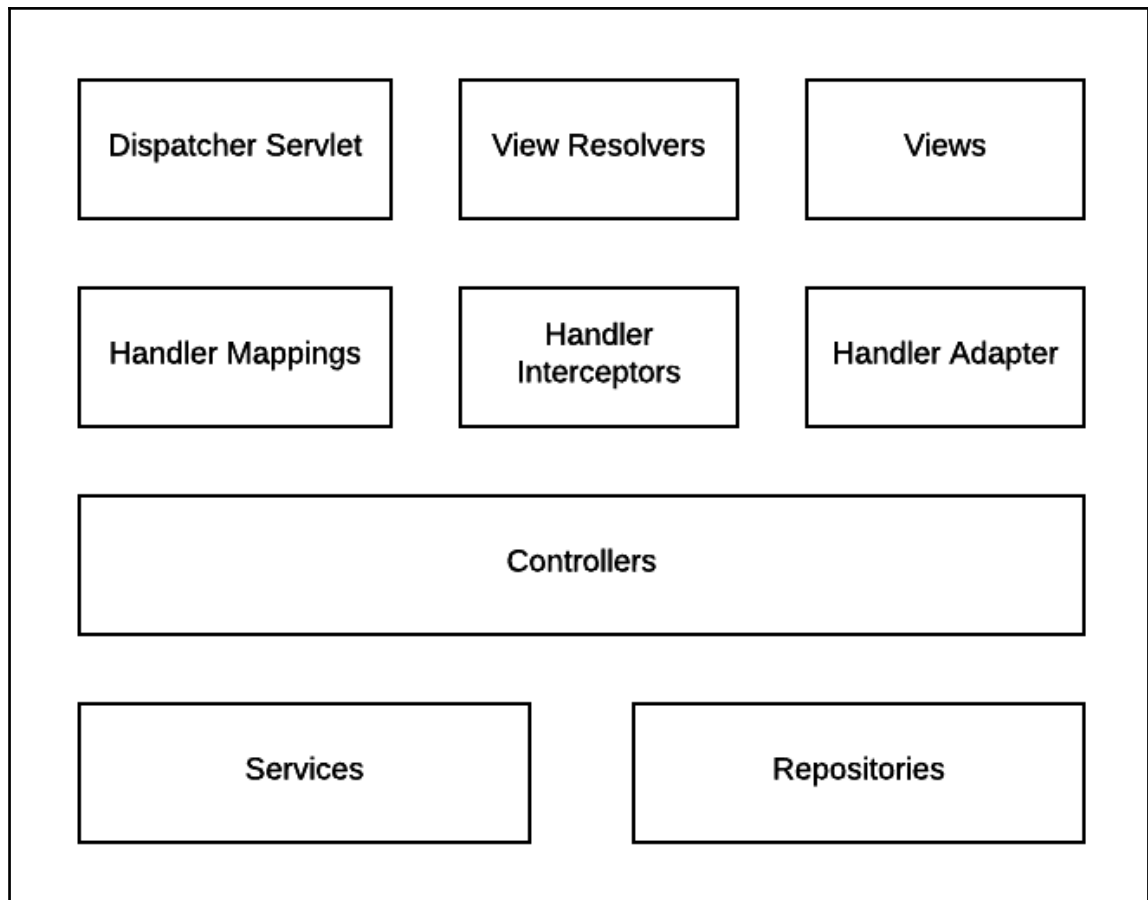


Chapter 1: Introduction to Spring Web Framework





```

@Controller
@SpringBootApplication (scanBasePackages={"com.services"})
public class DemoApplication {

    @Autowired
    private UserService userService;

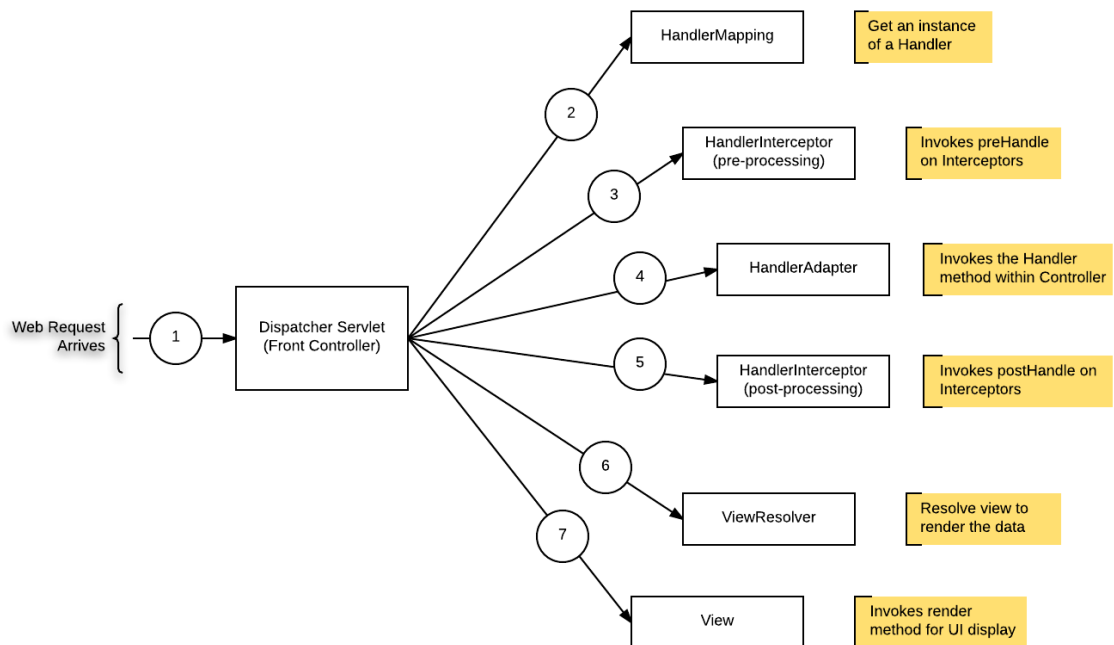
    @RequestMapping("/")
    @ResponseBody
    String home() {
        User user = null;
        return "Hello " + userService.getUsername(user) + ". How are you?";
    }

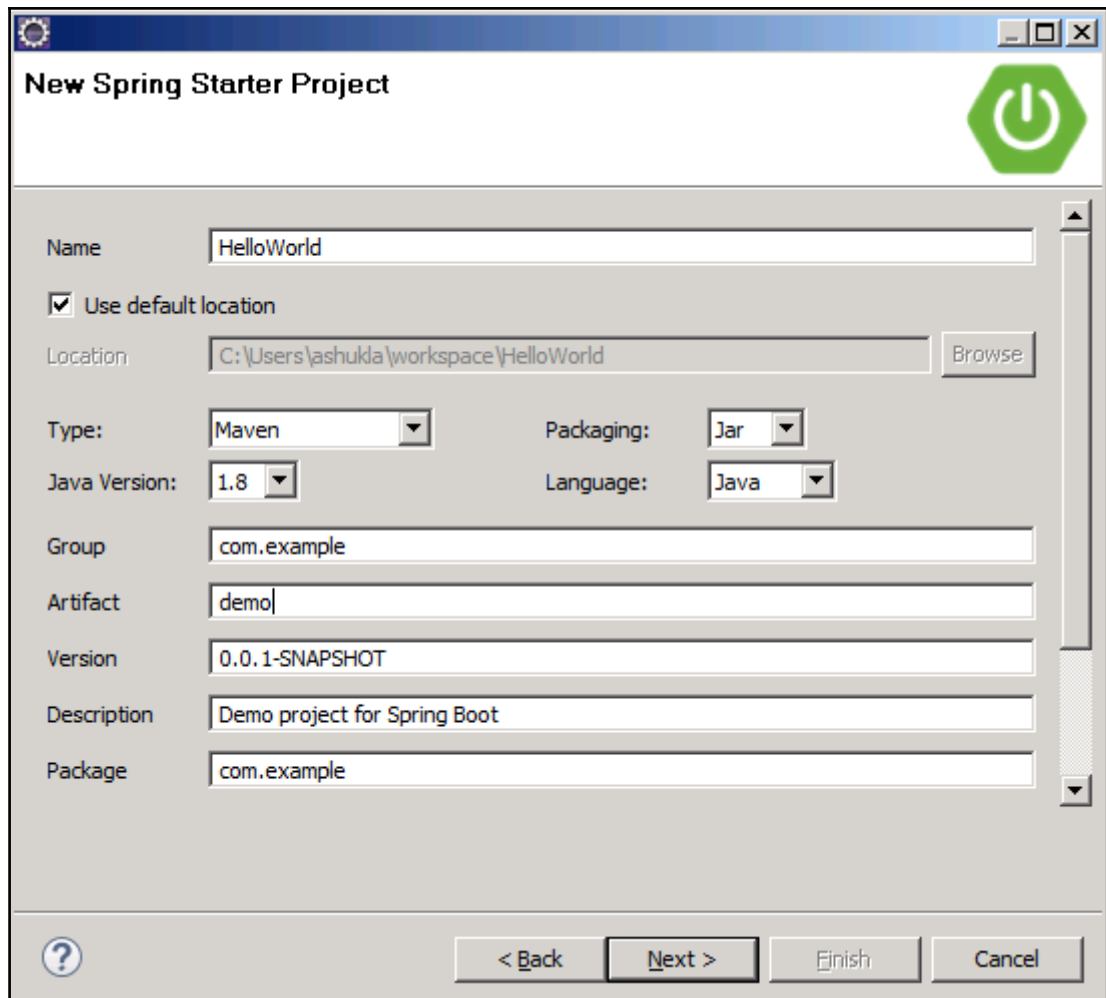
    public static void main(String[] args) {
        SpringApplication.run(DemoApplication.class, args);
    }
}

```

Controller (points to `@Controller`)

Handler Mappings (points to `@RequestMapping`)





The image shows a 'New Spring Starter Project' dialog box. It has a title bar with a gear icon and standard window controls. The title is 'New Spring Starter Project' and there is a green power button icon in the top right. The dialog contains several input fields and dropdown menus for configuring a new project. The fields are: Name (HelloWorld), Location (C:\Users\ashuka\workspace\HelloWorld), Type (Maven), Packaging (Jar), Java Version (1.8), Language (Java), Group (com.example), Artifact (demo), Version (0.0.1-SNAPSHOT), Description (Demo project for Spring Boot), and Package (com.example). There is a checkbox for 'Use default location' which is checked. A 'Browse' button is next to the Location field. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel', along with a help icon (?) on the left.

New Spring Starter Project

Name: HelloWorld

☒ Use default location

Location: C:\Users\ashuka\workspace\HelloWorld Browse

Type: Maven Packaging: Jar

Java Version: 1.8 Language: Java

Group: com.example

Artifact: demo

Version: 0.0.1-SNAPSHOT

Description: Demo project for Spring Boot

Package: com.example

? < Back Next > Finish Cancel



New Spring Starter Project

Spring Boot Version: 1.5.1

Dependencies:

- ▶ Frequently Used

Type to search dependencies

Make DefaultClear Selection

- ▶ Cloud AWS
- ▶ Cloud Circuit Breaker
- ▶ Cloud Cluster
- ▶ Cloud Config
- ▶ Cloud Contract
- ▶ Cloud Core
- ▶ Cloud Data Flow
- ▶ Cloud Discovery
- ▶ Cloud Messaging
- ▶ Cloud Routing
- ▶ Cloud Tracing
- ▶ Core
- ▶ Experimental
- ▶ I/O
- ▶ NoSQL
- ▶ Ops
- ▶ Pivotal Cloud Foundry
- ▶ SQL
- ▶ Social
- ▶ Template Engines
- ▼ Web
 - ☒ Web
 - ☐ Websocket
 - ☐ Web Services
 - ☐ Jersey (JAX-RS)



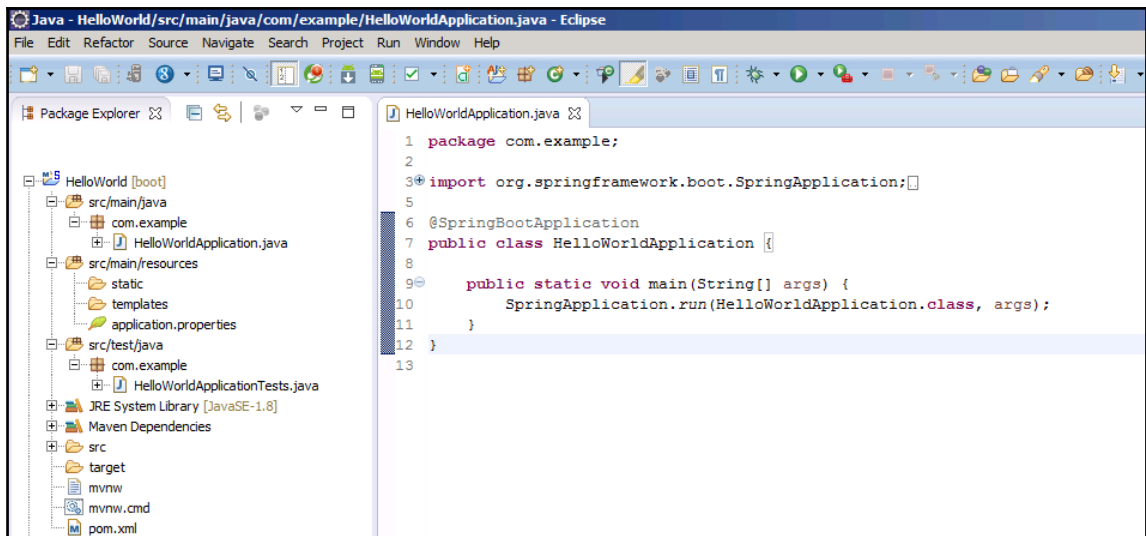
< Back

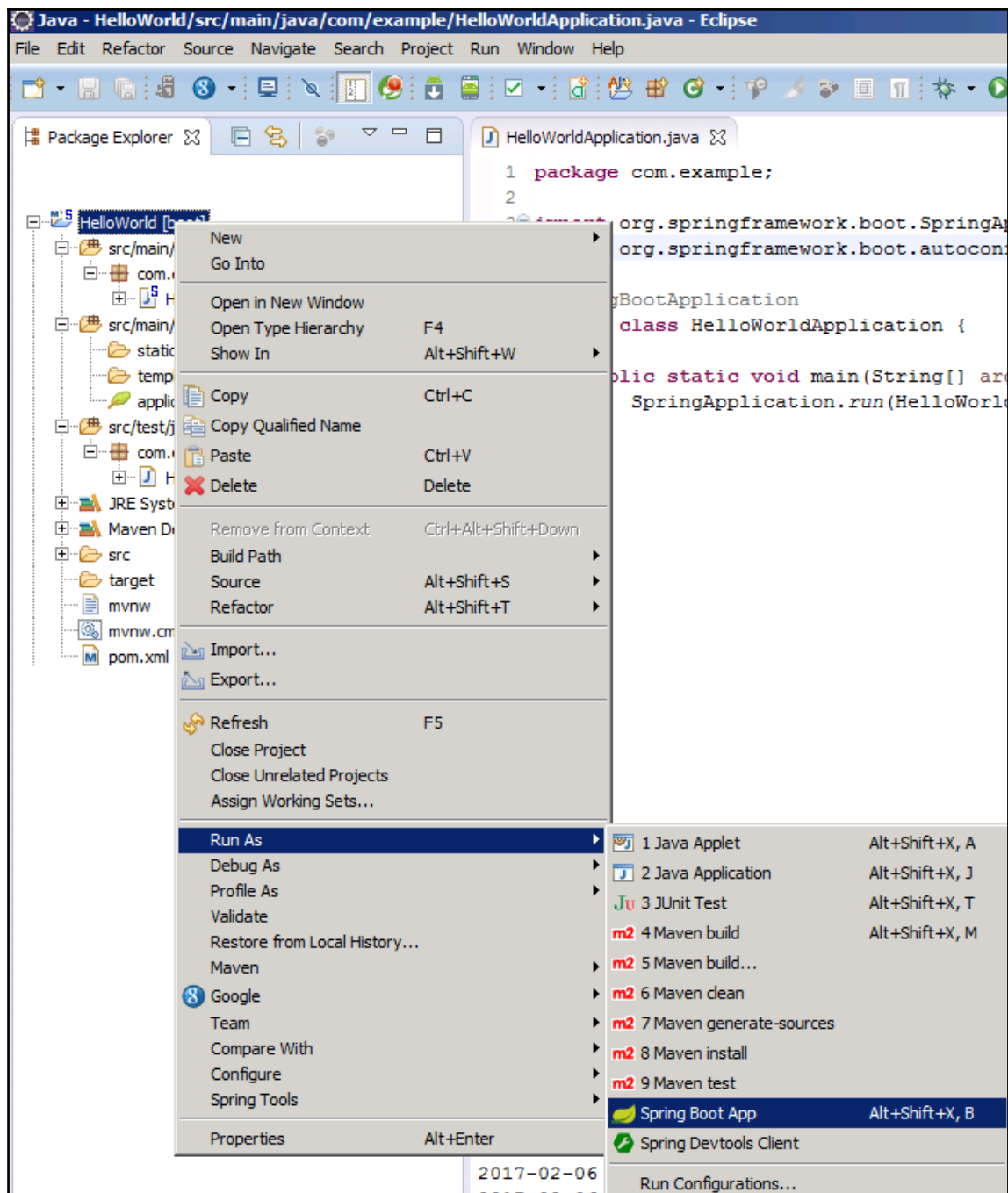
Next >

Finish

Cancel

[]





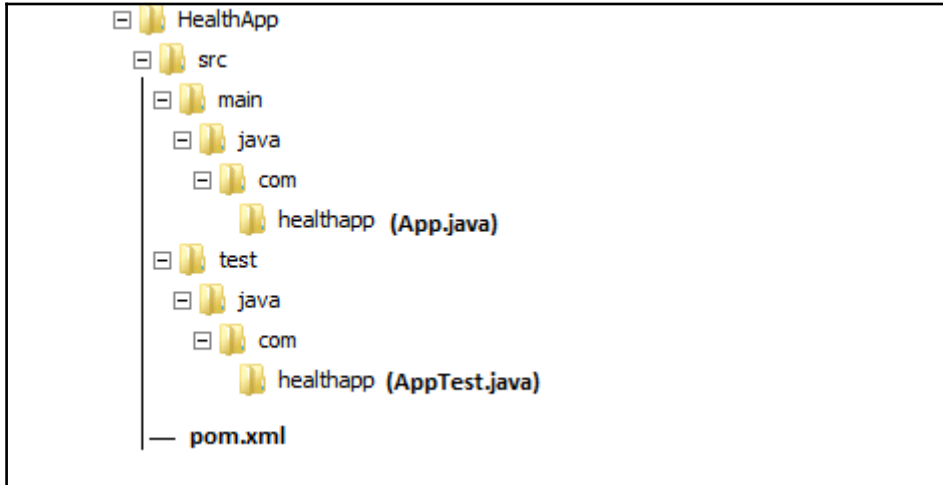
New User Signup

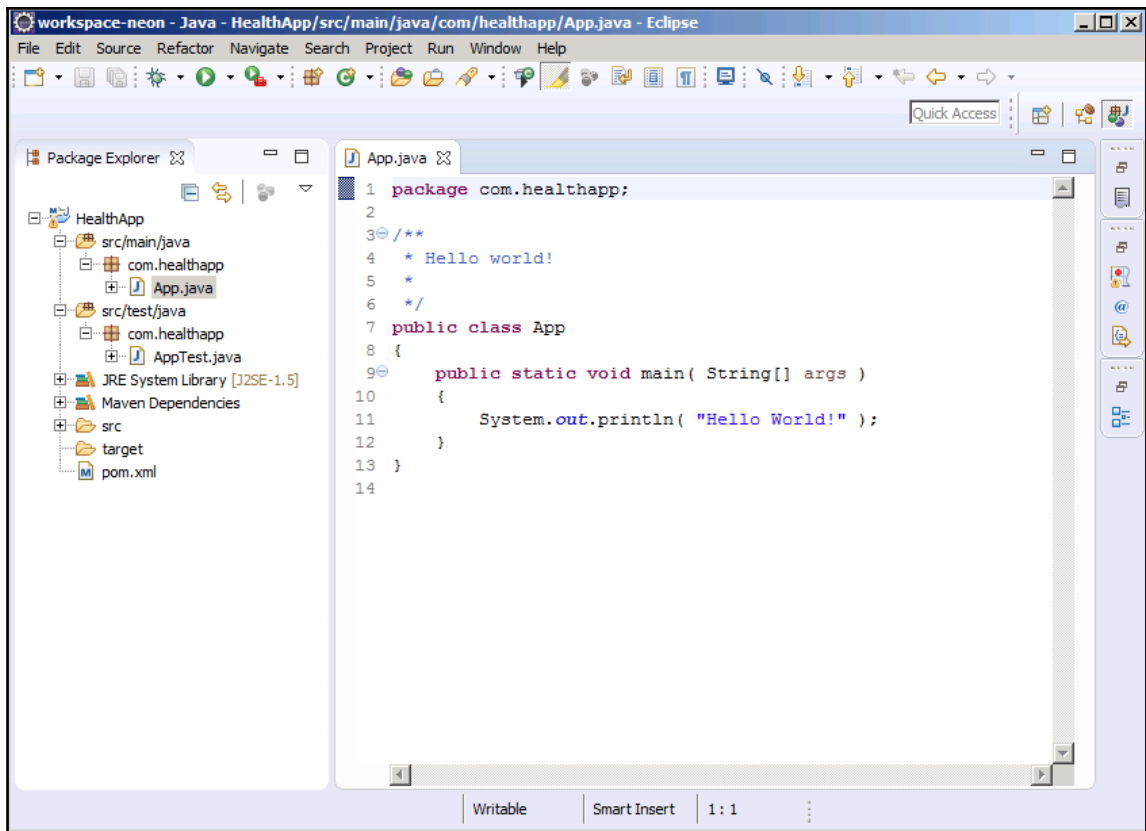
Nick Name

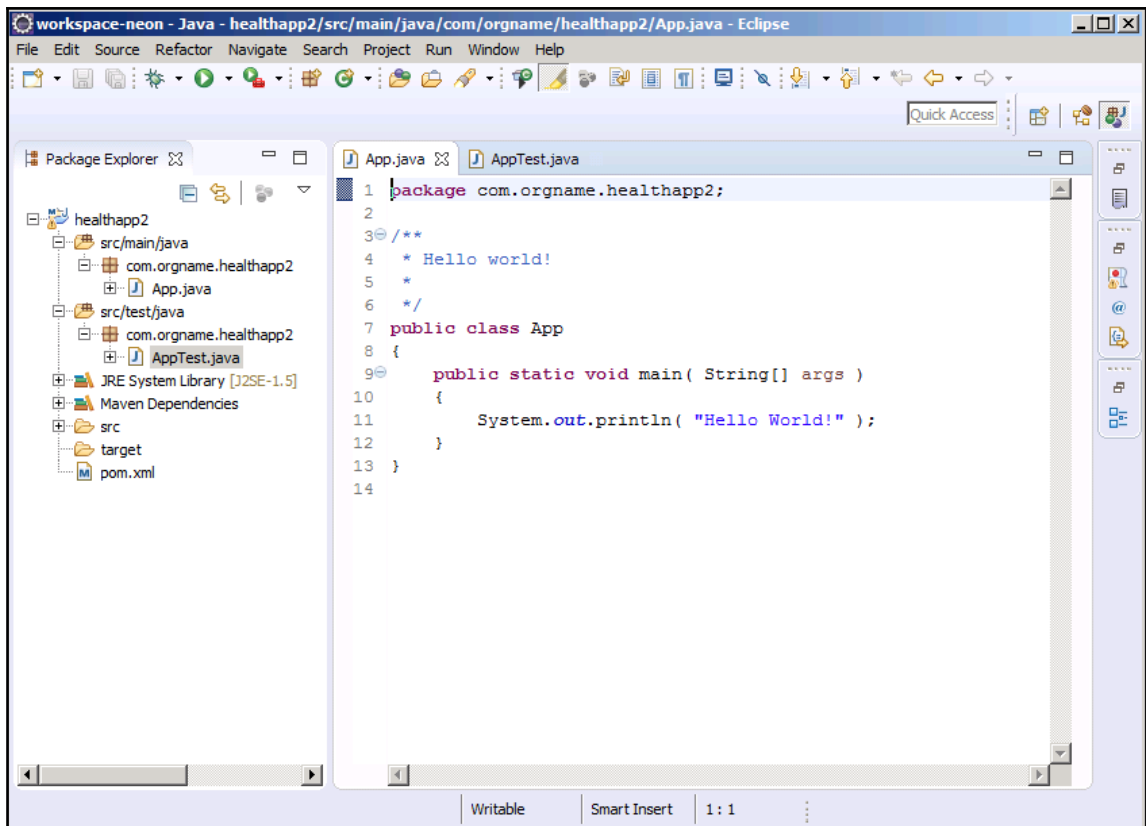
Email address

Password

Chapter 2: Preparing the Spring Web Development Environment







Apache Tomcat/8.5.8



The **Apache Software Foundation**
<http://www.apache.org/>

If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:

[Security Considerations HOW-TO](#)

[Manager Application HOW-TO](#)

[Clustering/Session Replication HOW-TO](#)

[Server Status](#)

[Manager App](#)

[Host Manager](#)

Developer Quick Start

[Tomcat Setup](#)

[First Web Application](#)

[Realms & AAA](#)

[JDBC DataSources](#)

[Examples](#)

[Servlet Specifications](#)

[Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

`$CATALINA_HOME/conf/tomcat-users.xml`

In Tomcat 8.5 access to the manager application is split between different users.
[Read more...](#)

[Release Notes](#)

[Changelog](#)

[Migration Guide](#)

[Security Notices](#)

Documentation

[Tomcat 8.5 Documentation](#)

[Tomcat 8.5 Configuration](#)

[Tomcat Wiki](#)

Find additional important configuration information in:

`$CATALINA_HOME/RUNNING.txt`

Developers may be interested in:

[Tomcat 8.5 Bug Database](#)

[Tomcat 8.5 JavaDocs](#)

[Tomcat 8.5 SVN Repository](#)

Getting Help

[FAQ and Mailing Lists](#)

The following mailing lists are available:

[tomcat-announce](#)

Important announcements, releases, security vulnerability notifications. (Low volume).

[tomcat-users](#)

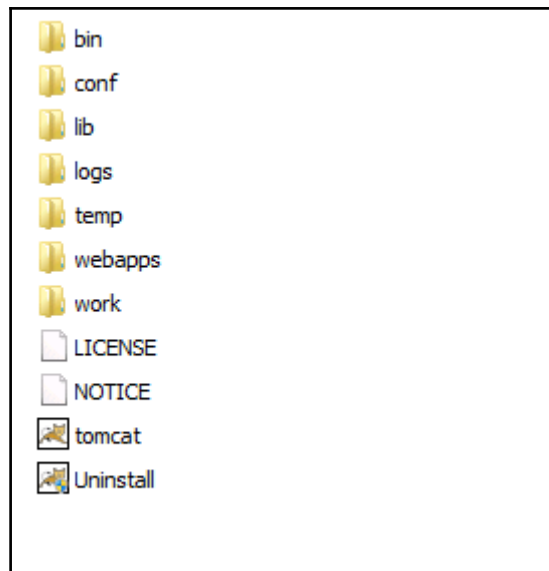
User support and discussion

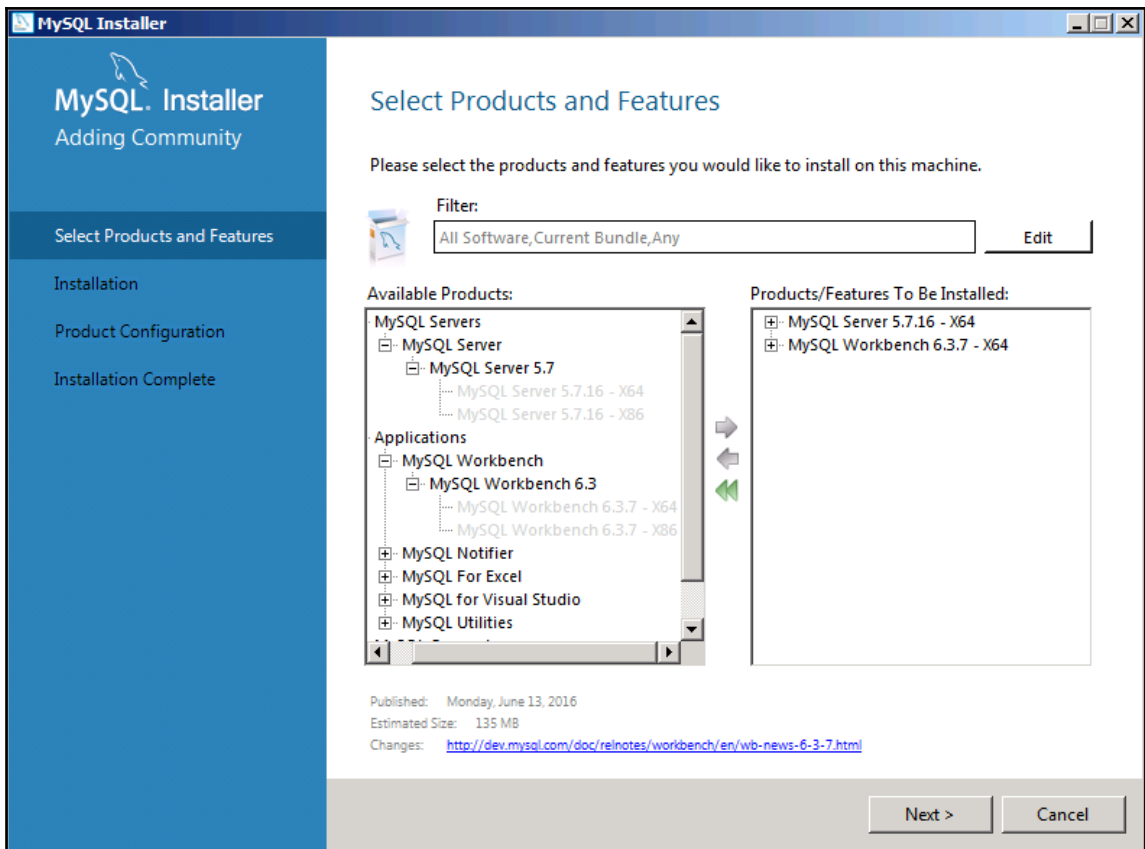
[taglibs-user](#)

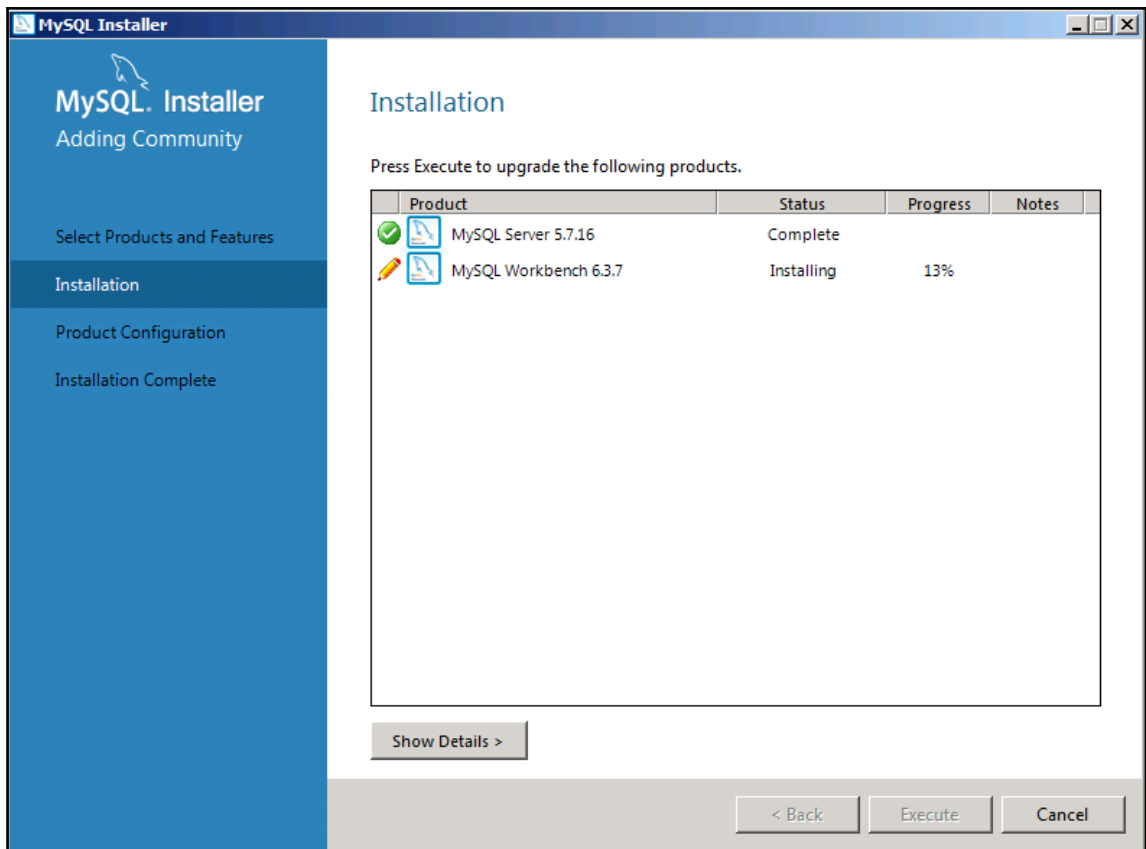
User support and discussion for [Apache Taglibs](#)

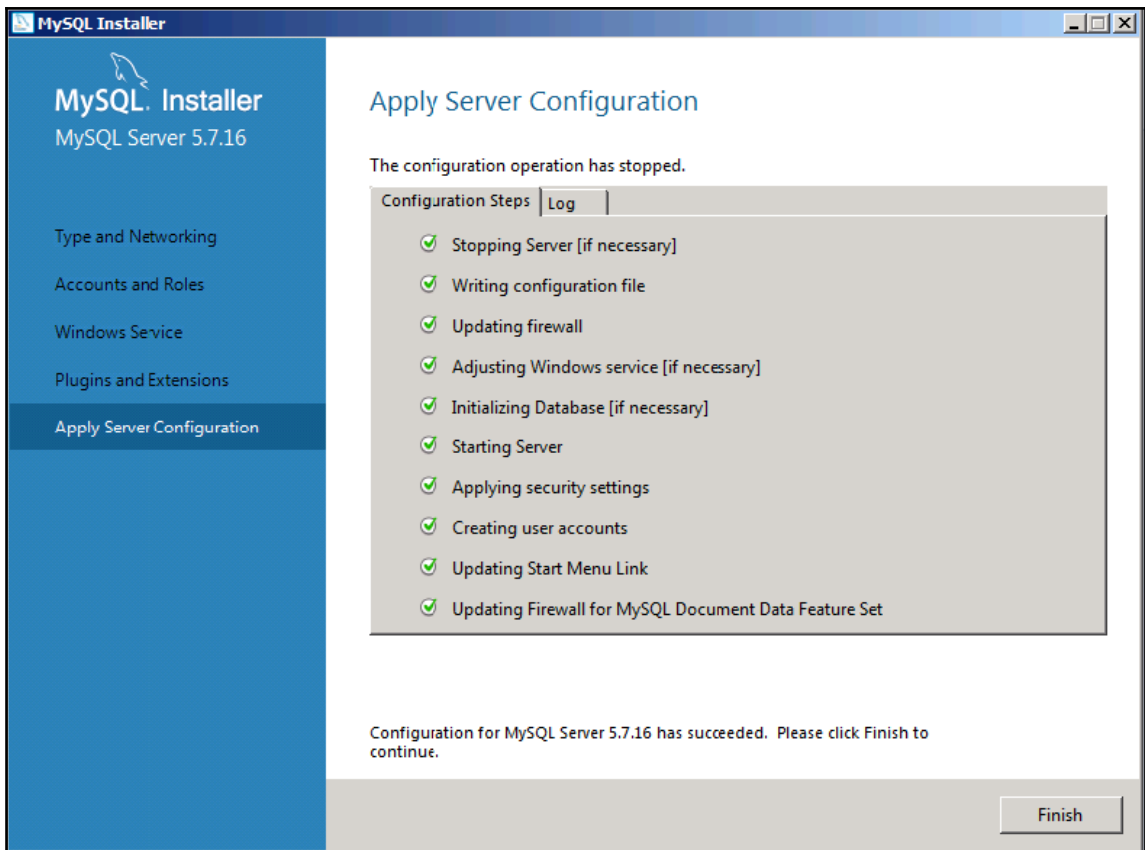
[tomcat-dev](#)

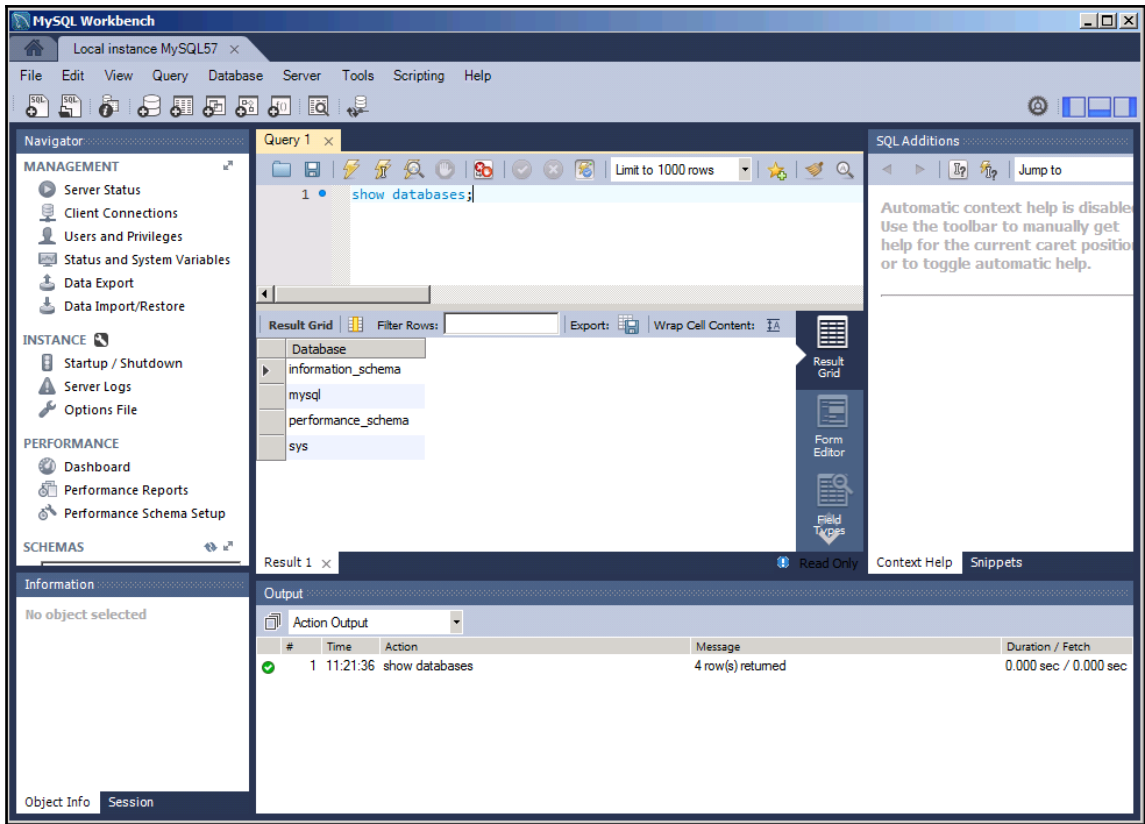
Development mailing list, including commit messages

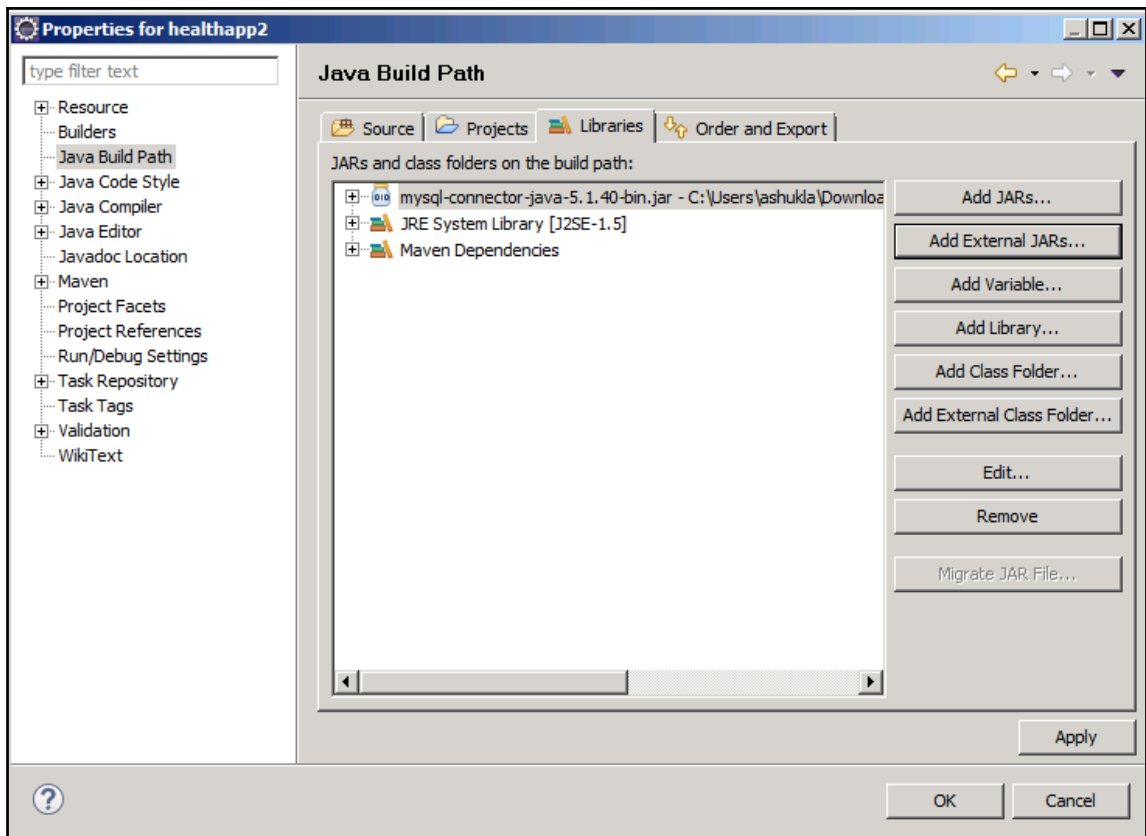


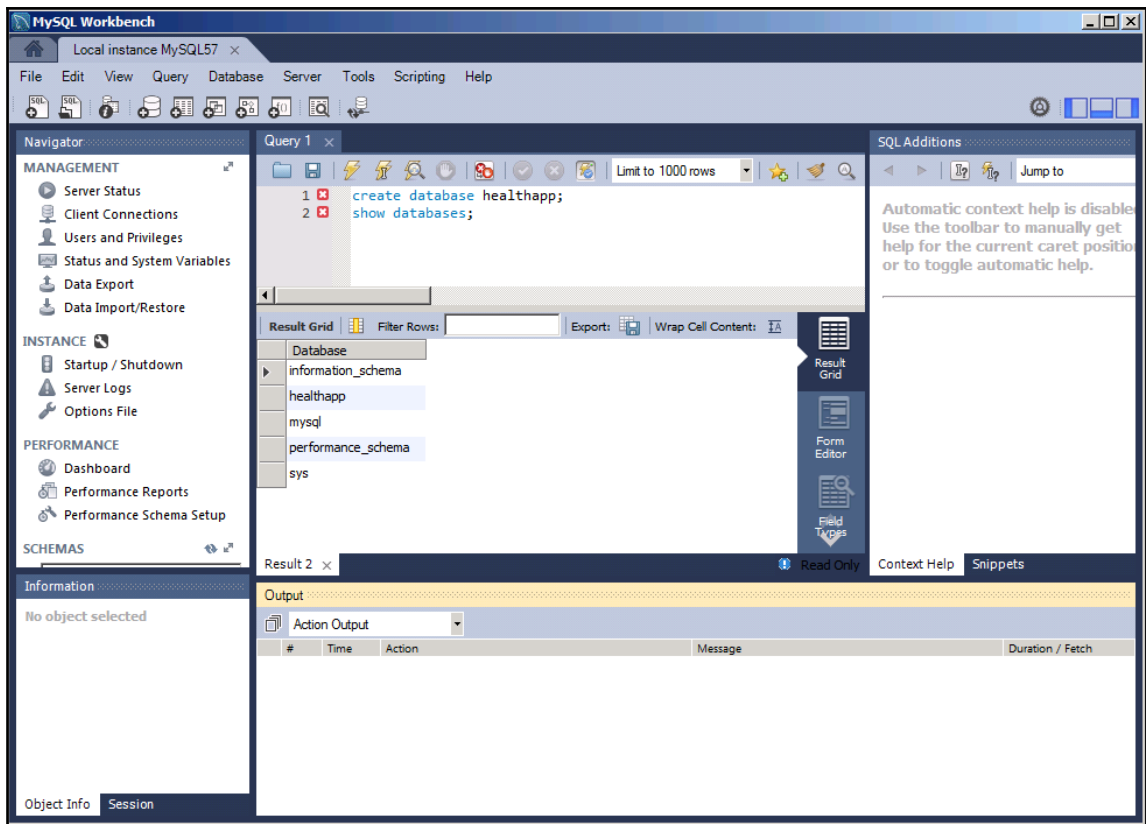










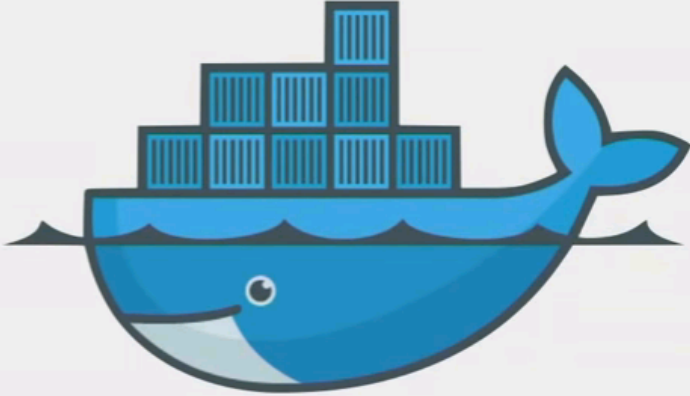


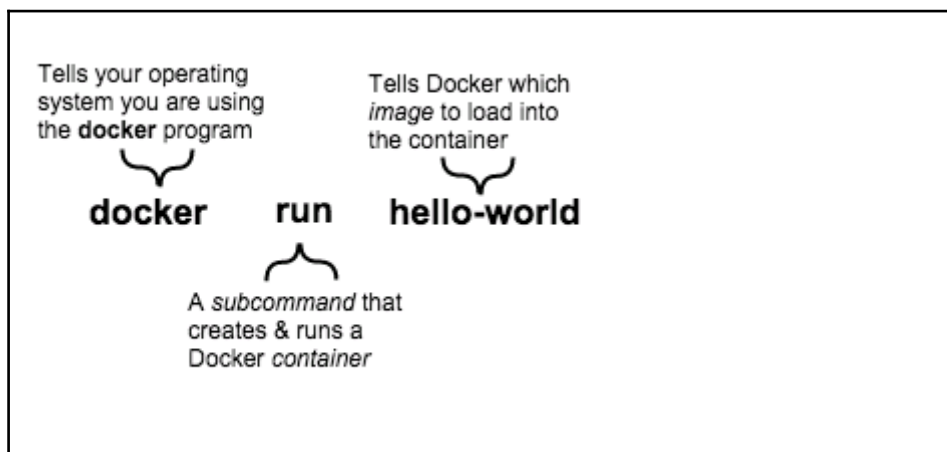
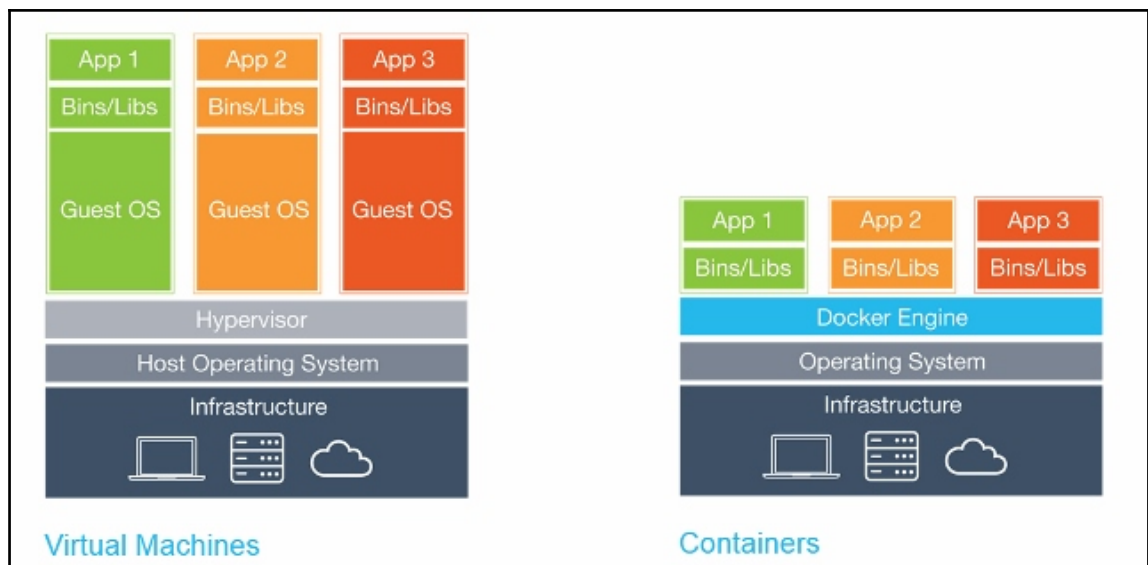


	?	?	?	?	?	?
	?	?	?	?	?	?
	?	?	?	?	?	?
	?	?	?	?	?	?
	?	?	?	?	?	?
	?	?	?	?	?	?
						

Static website	?	?	?	?	?	?	?
Web frontend	?	?	?	?	?	?	?
Background workers	?	?	?	?	?	?	?
User DB	?	?	?	?	?	?	?
Analytics DB	?	?	?	?	?	?	?
Queue	?	?	?	?	?	?	?
							

Static website							
Web frontend							
Background workers							
User DB							
Analytics DB							
Queue							
							



192.168.99.100:8080

HomeDocumentationConfigurationExamplesWikiMailing Lists

Find Help

Apache Tomcat/8.5.8

The Apache Software Foundation
http://www.apache.org/

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[tomcat-users](#)
User support and discussion

[tomcat-dev](#)
User support and discussion for Apache Tomcat

[tomcat-dev](#)
Development mailing list, including commit messages

Other Downloads

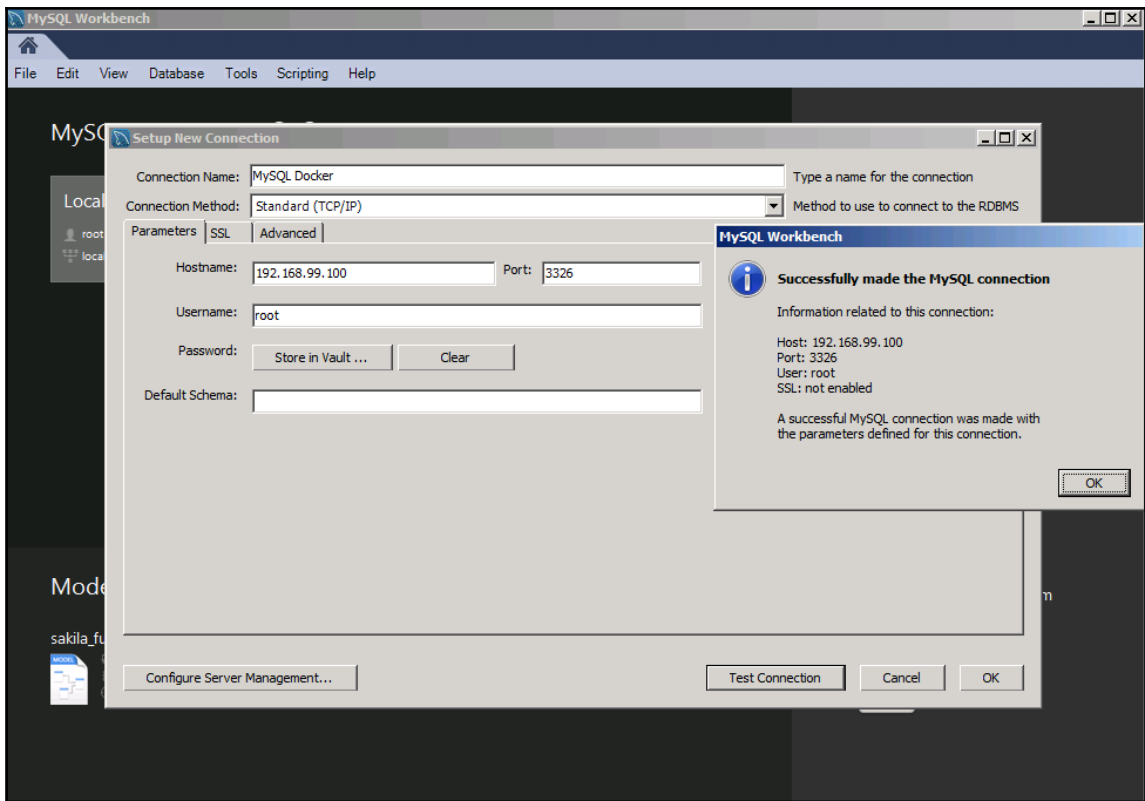
Other Documentation

Get Involved

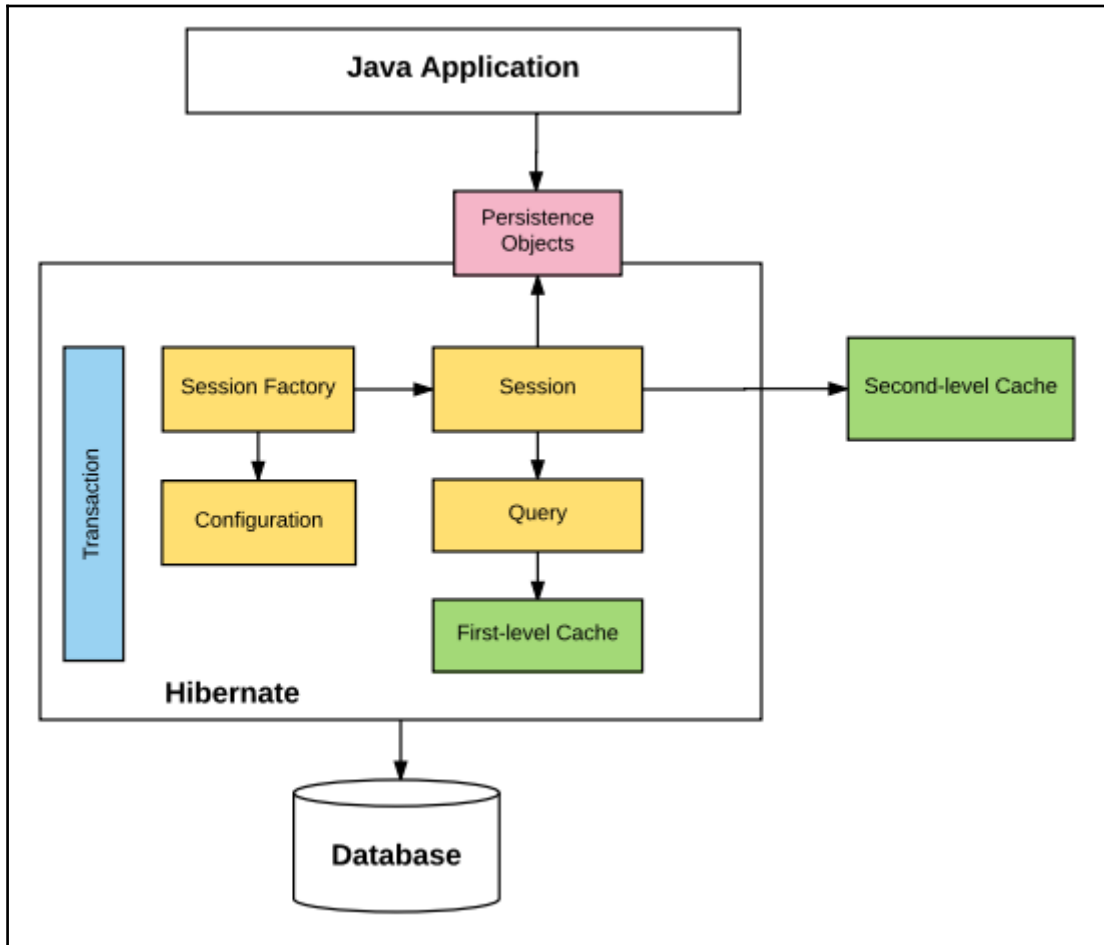
Miscellaneous

Apache Software Foundation

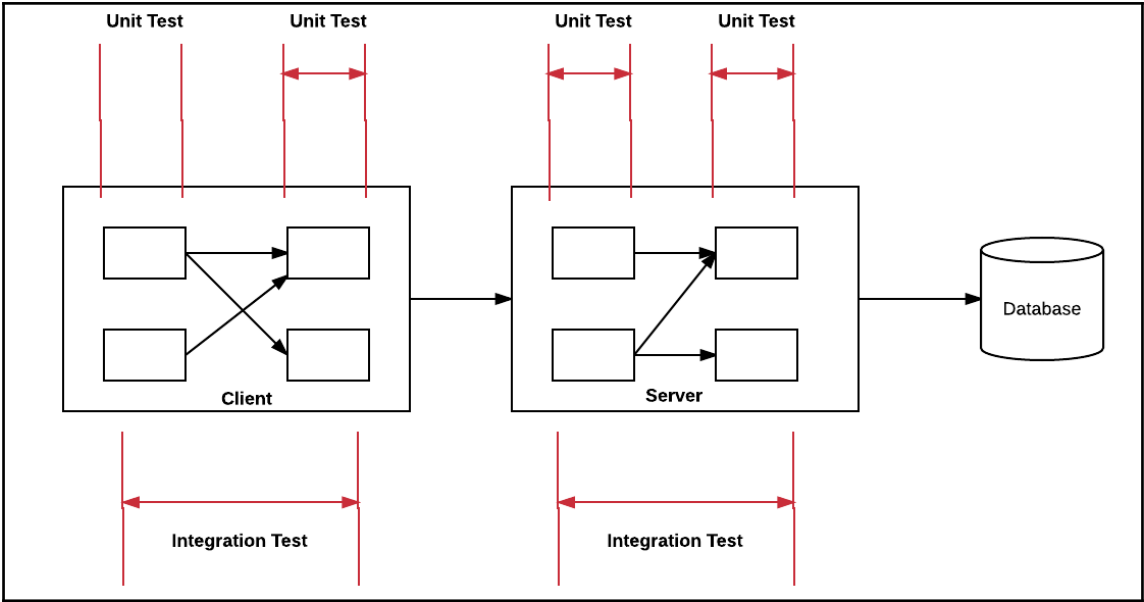
[]

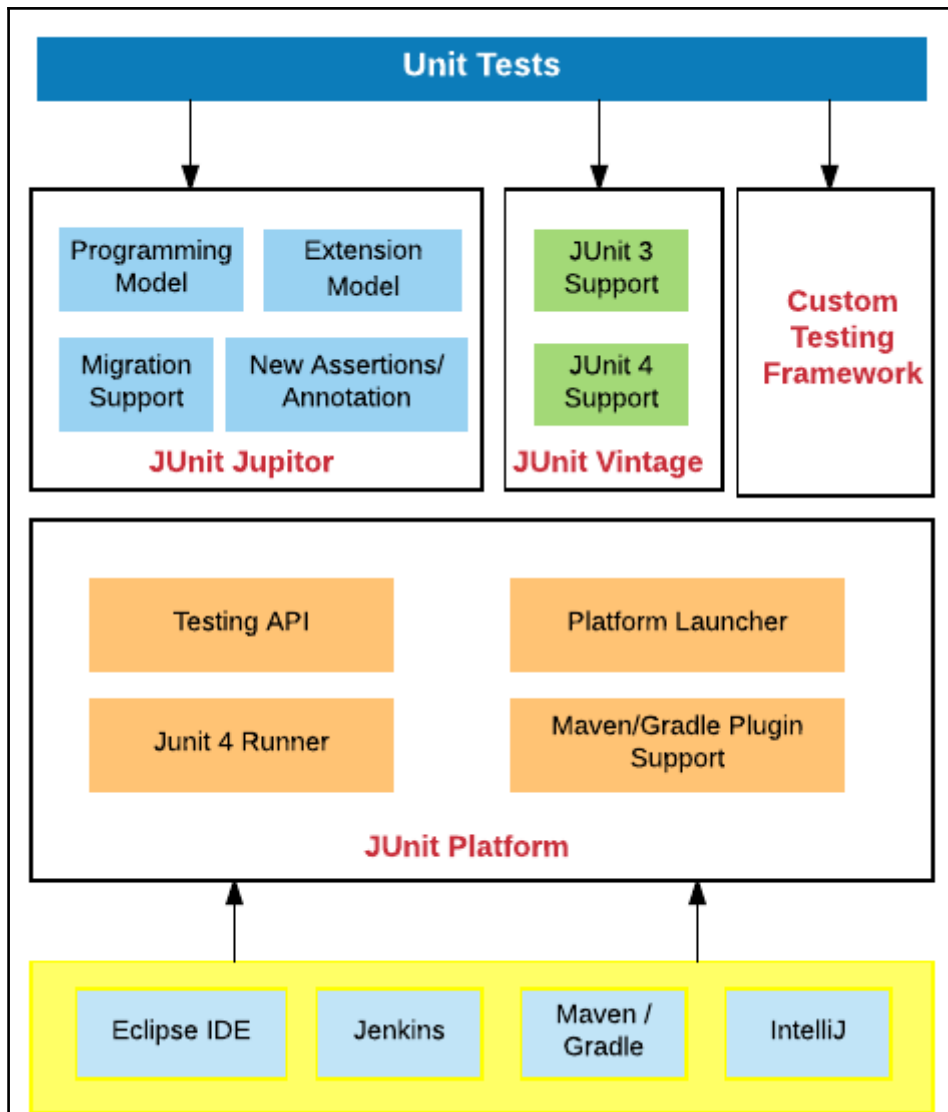


Chapter 3: Data Access Layer with Spring and Hibernate

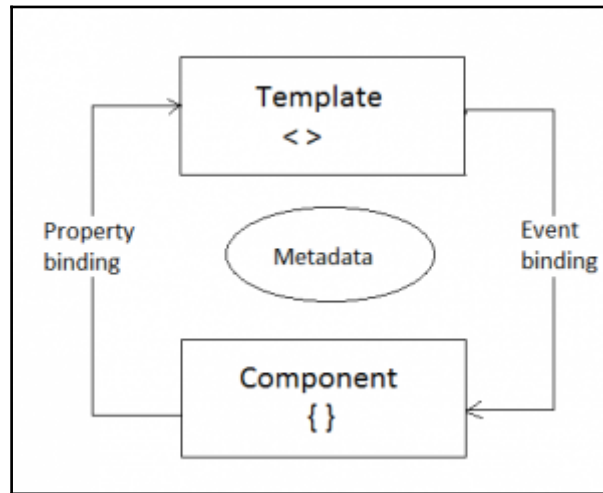


Chapter 4: Testing and Running Spring Web App





Chapter 6: Getting Started with Angular



```
installing ng
  create .editorconfig
  create README.md
  create src/app/app.component.css
  create src/app/app.component.html
  create src/app/app.component.spec.ts
  create src/app/app.component.ts
  create src/app/app.module.ts
  create src/assets/.gitkeep
  create src/environments/environment.prod.ts
  create src/environments/environment.ts
  create src/favicon.ico
  create src/index.html
  create src/main.ts
  create src/polyfills.ts
  create src/styles.css
  create src/test.ts
  create src/tsconfig.app.json
  create src/tsconfig.spec.json
  create src/typings.d.ts
  create .angular-cli.json
  create e2e/app.e2e-spec.ts
  create e2e/app.po.ts
  create e2e/tsconfig.e2e.json
  create .gitignore
  create karma.conf.js
  create package.json
  create protractor.conf.js
  create tsconfig.json
  create tslint.json
Successfully initialized git.
Installing packages for tooling via npm.
Installed packages for tooling via npm.
```

Welcome to app!!



Users Login

Email

ajitesh@gmail.com

Password

Password

Password is required

Submit

[New User? Sign up](#) | [Forgot Password?](#)

HealthApp - A Platform for Doctors & Patients

This is a platform bringing together Doctors and Patients and helping them communicate, collaborate.

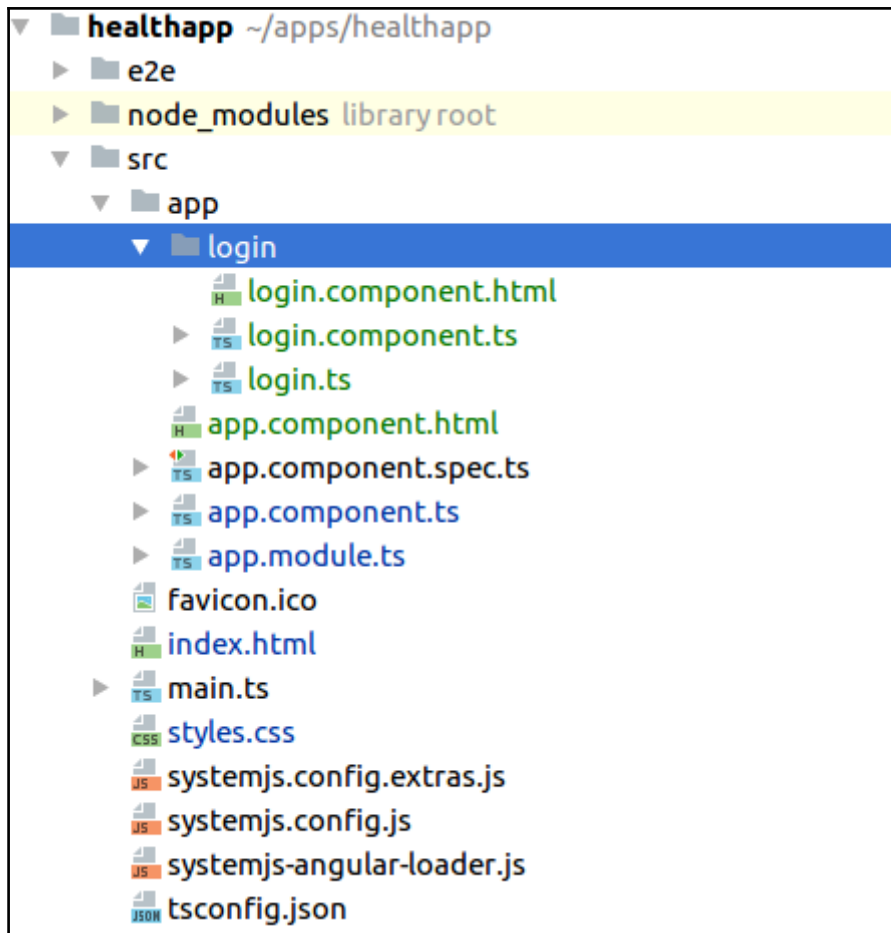
Users Login

Email

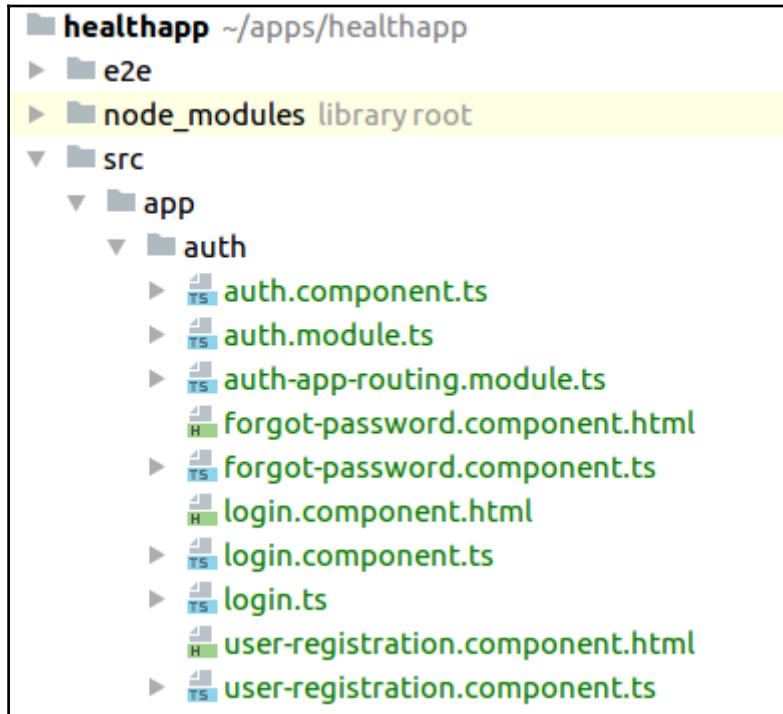
Password

Submit

[New User? Sign up](#) | [Forgot Password?](#)



Chapter 7: Creating SPA with Angular and Spring 5



Services ▾

Search Doctors

Go

Users Login

Email

Email

Password

Password

Submit

[New User? Sign up](#) | [Forgot Password?](#)

New User Registration

Email

Email

Password

Password

Password

Nickname

Submit

+HealthApp

Services ▾

Go

Forgot Password

Email

Submit

```
healthapp ~/apps/healthapp
├─ e2e
├─ node_modules library root
└─ src
  └─ app
    ├── auth
    └─ doctor
      ├── doc.component.ts
      ├── doc.module.ts
      ├── doc-routing.module.ts
      ├── doctor.service.ts
      ├── doctor.ts
      ├── doctor-list.component.html
      └── doctor-list.component.ts
```

All

Physician

Pediatrician

Doctors

Anisha Shukla

Email: anisha@gmail.com

Speciality: PHYSICIAN



Venu V

Email: venu@gmail.com

Speciality: PEDIATRICIAN



+HealthApp

Services ▾

Search Doctors

Go

Home / Doctors

All

Physician

Pediatrician

Doctors

Venu V

Email: venu@gmail.com

Speciality: PEDIATRICIAN

👍

🔗

Usha P

Email: usha@gmail.com

Speciality: PEDIATRICIAN

👍

🔗

Aiyana Shukla

Email: aiyana.chocos@gmail.com

Speciality: PEDIATRICIAN

[]

Elements Console Sources Network Performance Memory JavaScript Profiler Application Security Audits

Sources Content scripts Snippets

localhost:3000

- app
 - auth
 - doctor
 - doc-routing.module.js
 - doc-routing.module.ts
 - doc.component.js
 - doc.module.js
 - doc.module.ts
 - doctor-list.component.js
 - doctor-list.component.ts
 - doctor.js
 - doctor.service.js**
 - doctor.service.ts
 - doctor.ts
 - utils
 - app-routing.module.js
 - app-routing.module.ts
 - app.component.js
 - app.module.js
 - app.module.ts
 - home.component.js
 - home.component.ts
 - browser-sync
 - node_modules
 - packages
 - index
 - systemjs-angular-loader.js
 - styles.css
 - ajax.googleapis.com
 - maxcdn.bootstrapcdn.com
 - ng://

Serving from the file system? Add your files into the workspace. [more](#) [never show](#)

```
1 import { Injectable } from '@angular/core';
2 import { Http, Response } from '@angular/http';
3
4 import { Observable } from 'rxjs/Observable';
5 import 'rxjs/add/operator/catch';
6 import 'rxjs/add/operator/map';
7 import 'rxjs/add/observable/throw';
8
9 import { Doctor } from './doctor';
10
11 @Injectable()
12 export class DoctorService {
13   private doctorsUrl = 'http://localhost:8080/doctors';
14
15   times: number;
16
17   constructor (private http: Http) {}
18
19   getDoctorsBySpeciality(specialityCode: string): Observable<Doctor[]> {
20     let path = '';
21     if (specialityCode != null) {
22       path = '/' + specialityCode;
23     }
24     return this.http.get(this.doctorsUrl + path)
25       .map(this.extractData)
26       .catch(this.handleError);
27   }
28
29   private extractData(res: Response) {
30     let body = res.json();
31     let doctors = [];
32     for (let i = 0; i < body.doctors.length; i++) {
33       let doctorInfo = body.doctors[i];
34       let doctor = new Doctor(doctorInfo.user.firstname, doctorInfo.user.lastname, doctorInfo.user.speciality);
35       doctors.push(doctor);
36     }
37     return doctors;
38   }
39
40   private handleError (error: Response | any) {
41     // In a real world app, you might use a remote logging infrastructure
42     let errMsg: string;
43     if (error instanceof Response) {
44       const body = JSON.parse(JSON.stringify(error)) || '';
45       const err = body.error || JSON.stringify(body);
46       errMsg = `${error.status} - ${error.statusText || ''} ${err}`;
47     } else {
48       errMsg = error.message ? error.message : error.toString();
49     }
50     console.error(errMsg);
51     return Observable.throw(errMsg);
52   }
53 }
54
```

Line 30, Column 20 (source mapped from doctor.service.js)

Paused on breakpoint

Watch

Call Stack

- DoctorService
- doctor.serv
- MapSubscrib
- map.ts:73
- Subscriber.ne
- Subscriber
- onLoad
- xhr_backer
- ZoneDelegat
- zone.js:42
- onInvokeTas
- ng_zone.ts
- ZoneDelegat
- zone.js:42
- Zone.runTas
- zone.js:19
- ZoneTask.inv
- zone.js:48

Scope

Local

- body: unde
- doctor: ur
- doctorInfo
- doctors: []
- i: undefin
- res: Respo
- this: MapS

Closure

Global Win

Breakpoints

- doctor.serv
- let body = r

XHR Breakpo

DOM Breakpo

Global Listen

Event Listene

Chapter 8: Unit Testing with Angular Apps

```
angular-quickstart@1.0.0 pretest /home/ajiteshkumar/apps/healthapp
> npm run build

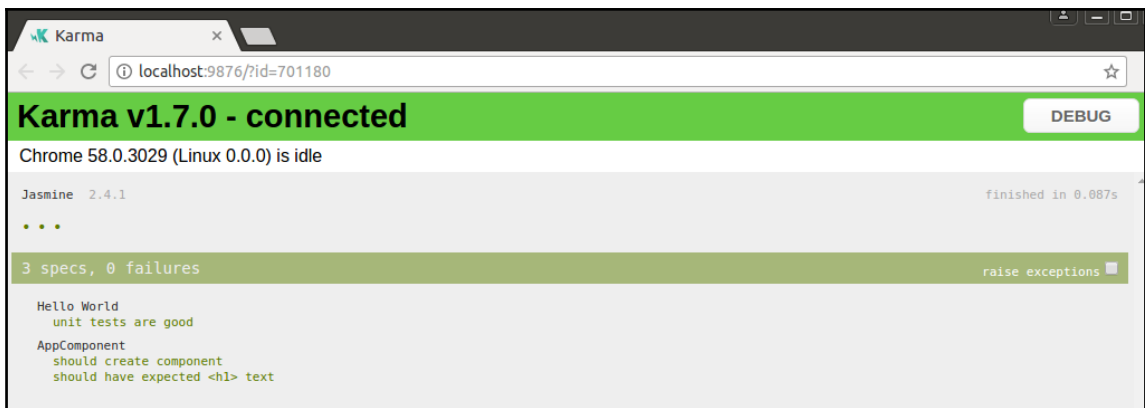
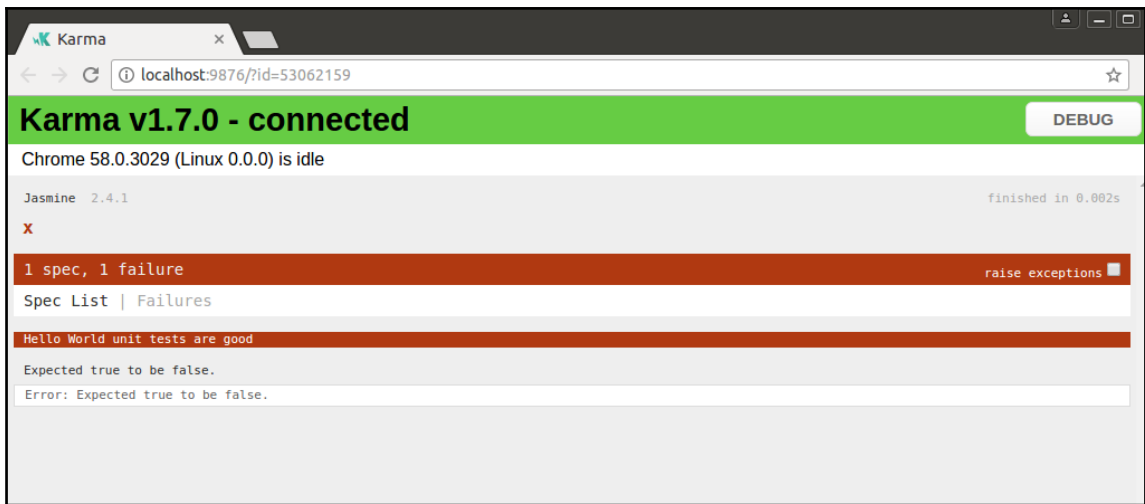
angular-quickstart@1.0.0 build /home/ajiteshkumar/apps/healthapp
> tsc -p src/

angular-quickstart@1.0.0 test /home/ajiteshkumar/apps/healthapp
> concurrently "npm run build:watch" "karma start karma.conf.js"

angular-quickstart@1.0.0 build:watch /home/ajiteshkumar/apps/healthapp
> tsc -p src/ -w

06 07 2017 05:46:00.378:WARN [watcher]: Pattern "/home/ajiteshkumar/apps/healthapp/testing/**/*.js" does not match any file.
06 07 2017 05:46:00.405:WARN [watcher]: Pattern "/home/ajiteshkumar/apps/healthapp/testing/**/*.ts" does not match any file.
06 07 2017 05:46:00.406:WARN [watcher]: Pattern "/home/ajiteshkumar/apps/healthapp/testing/**/*.js.map" does not match any file.
06 07 2017 05:46:00.809:WARN [karma]: No captured browser, open http://localhost:9876/
06 07 2017 05:46:00.827:INFO [karma]: Karma v1.7.0 server started at http://0.0.0.0:9876/
06 07 2017 05:46:00.827:INFO [launcher]: Launching browser Chrome with unlimited concurrency
06 07 2017 05:46:00.839:INFO [launcher]: Starting browser Chrome
06 07 2017 05:46:02.276:INFO [Chrome 58.0.3029 (Linux 0.0.0)]: Connected on socket go5SM-t2cvRyFnwAAAA with id 701180
Chrome 58.0.3029 (Linux 0.0.0): Executed 1 of 1 SUCCESS (0.017 secs / 0.003 secs)
```





All

Physician

Pediatrician

Cardio-Physician

Doctors(9)

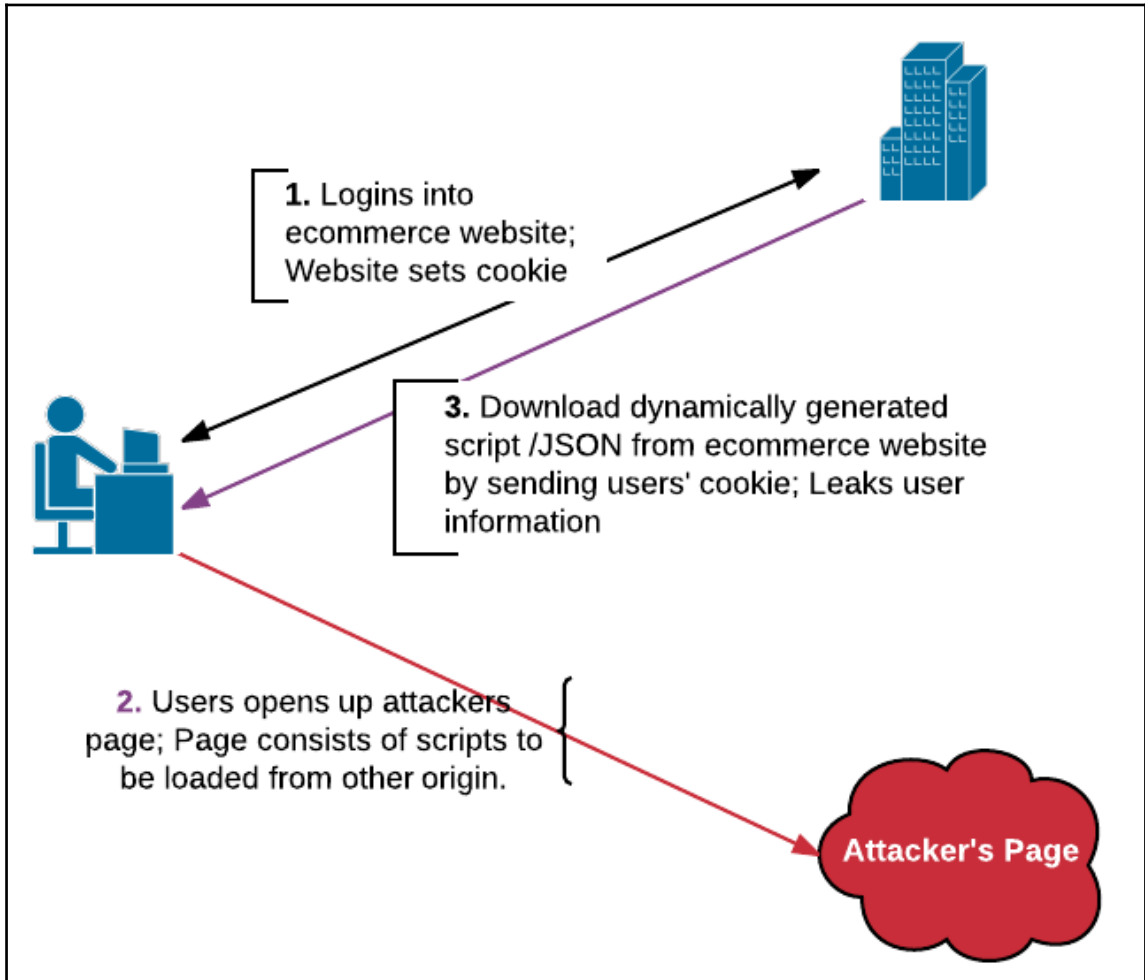
Anisha Shukla

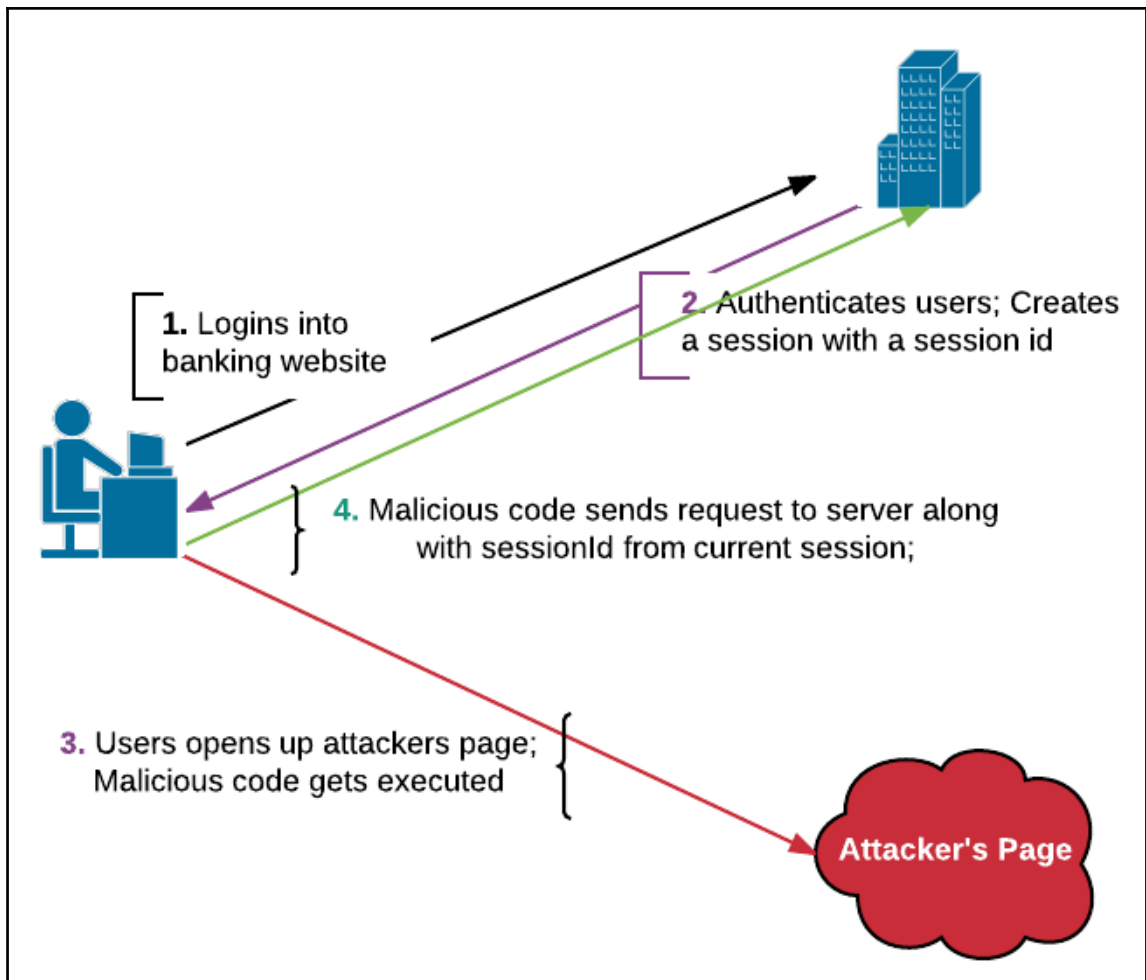
Email: anisha@gmail.com

Speciality: PHYSICIAN

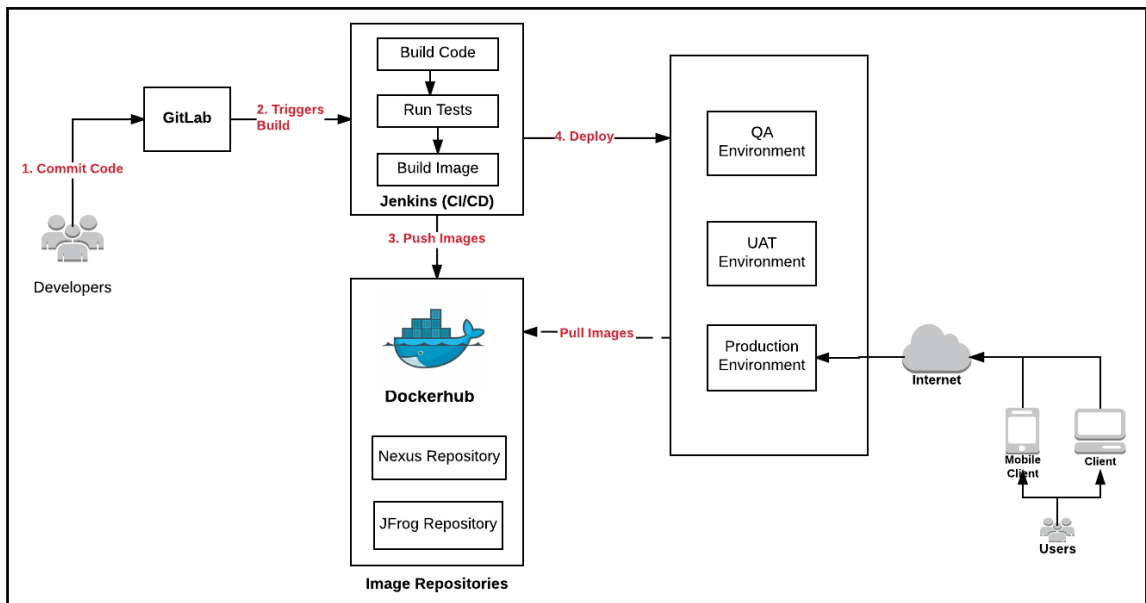


Chapter 9: Securing an Angular App





Chapter 11: Deploying the Web Application



Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

```
/var/jenkins_home/secrets/initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password

Enter an item name

» Required field



Freestyle project

This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.



Maven project

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



Pipeline

Orchestrates long-running activities that can span multiple build slaves. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



External Job

This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system.



Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

OK

Folder

Integrations

Webhooks can be used for binding events when something is happening within the project.

URL

http://10.0.2.119:18080/project/healthapp

Secret Token

Use this token to validate received payloads. It will be sent with the request in the X-Gitlab-Token HTTP header.

Trigger

☒ Push events

This URL will be triggered by a push to the repository

☐ Tag push events

This URL will be triggered when a new tag is pushed to the repository

☐ Comments

This URL will be triggered when someone adds a comment

☐ Issues events

This URL will be triggered when an issue is created/updated/merged

☐ Confidential Issues events

This URL will be triggered when a confidential issue is created/updated/merged

☐ Merge Request events

This URL will be triggered when a merge request is created/updated/merged

☐ Jobs events

This URL will be triggered when the job status changes

☐ Pipeline events

This URL will be triggered when the pipeline status changes

☐ Wiki Page events

This URL will be triggered when a wiki page is created/updated

SSL verification

☒ Enable SSL verification

Add Webhook

Gitlab

Enable authentication for '/project' end-point

GitLab connections

Connection name

Gitlab Local

A name for the connection

Gitlab host URL

http://10.0.2.119

The complete URL to the Gitlab server (i.e. http://gitlab.org)

Credentials

GitLab API token (Gitlab token)

Add

API Token for accessing Gitlab

Success

Advanced...

Test Connection

Source Code Management

None

Git

Repositories

Repository URL

http://10.0.2.119/ajitesh/healthapp.git

Credentials

ajitesh@gmail.com/***** (gitlab login) Add

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any')

/master

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

Build Triggers

☒

Build whenever a SNAPSHOT dependency is built

☐

Schedule build when some upstream has no successful builds

☐

Trigger builds remotely (e.g., from scripts)

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Build after other projects are built

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Build periodically

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Build when a change is pushed to GitLab. GitLab CI Service URL: http://localhost:18080/project/healthapp

Enabled GitLab triggers

Push Events

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Opened Merge Request Events

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Accepted Merge Request Events

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Closed Merge Request Events

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Rebuild open Merge Requests

Never

Comments

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Comment for triggering a build

Jenkins please retry a build