

A quick reference of Unix commands



This is a short list of the main commands that you can find in the demonstrations and practice tasks. Most commands have keys that change their behavior. Some common keys are shown in the examples.

man	General help about any command <code>man man</code> Help for the man command itself.
pwd	Display the current directory
cd	Change the current directory <code>cd /home/student/dba1; cd ..</code> Go to the directory containing the course materials, and then to the directory one level above
ls	List the contents of the current directory <code>ls -l ~</code> List the contents of the Home directory in a detailed format.
sudo	Run a command with superuser (or other user) privileges <code>sudo -u postgres ls -l /var/lib/postgresql/13/main</code> View the main cluster data directory.
su	Switch to superuser (or another user) <code>sudo su postgres</code> Switch to the postgres user (the exit command switches to the original user).
cat	Display the contents of a file <code>cat /etc/postgresql/13/main/postgresql.conf</code> The contents of the file at the specified location.
head, tail	Display the beginning (or the end) of a file <code>sudo head -n 1 /var/lib/postgresql/13/main/postmaster.pid</code> The first line of the specified file (contains the postmaster process ID). <code>tail -n 5 /var/log/postgresql/postgresql-13-main.log</code> The last five lines of the message log.

grep	<p>Filter specific lines from a file</p> <pre>cat /var/log/postgresql/postgresql-13-main.log grep FATAL</pre> <p>Find lines with the word “FATAL” in the output of the cat command (the vertical bar redirects the output of the cat command to the grep input).</p> <pre>sudo grep ^[^\#] /etc/postgresql/13/main/pg_hba.conf</pre> <p>Regular expression: all lines of the file that do not start with a number sign (#).</p>
echo	<p>Print text</p> <pre>echo "\setenv PSQL_PAGER 'less -XS'" >> ~/.psqlrc</pre> <p>Append a line to the end of the file ~/.psqlrc (> will overwrite the file).</p>
tee	<p>Write standard input to a file and to standard output</p> <pre>echo 'work_mem=12MB' ↪ sudo tee -a /etc/postgresql/13/main/postgresql.conf</pre> <p>Append a line to the end of the postgresql.conf file (without -a will overwrite the file).</p>
mkdir, rmdir	<p>Create (delete) a directory</p> <pre>sudo mkdir /var/lib/postgresql/ts_dir</pre> <p>Create the specified directory. You can only delete an empty directory.</p>
chown	<p>Change the owner of a directory</p> <pre>sudo chown postgres /var/lib/postgresql/ts_dir</pre> <p>Assign postgres as the owner of the directory /var/lib/postgresql/ts_dir</p>
cp, mv	<p>Copy (move) a file or directory</p> <pre>sudo cp -n /etc/postgresql/13/main/pg_hba.conf ~/pg_hba.conf.orig</pre> <p>Copy the specified file to the current directory under a different name.</p> <pre>cd ~; mv dba1/ dba1_handouts/</pre> <p>Move the course materials directory to another location (rename it).</p>
rm	<p>Delete a file</p> <pre>sudo rm ~/pg_hba.conf.orig</pre> <p>Delete the copy of the file.</p>
ps	<p>List of processes</p> <pre>ps -o pid,command --ppid `sudo head -n 1 ↪ /var/lib/postgresql/13/main/postmaster.pid`</pre> <p>A list of processes ran by postmaster. (a command in `back quotes` is substituted with its output when ran)</p>

time Execute another command and mark the time

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time sleep 1
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How long does a command that pauses for one second run?

sed Streaming text editor

Use a regular text editor instead. Sed is useful for writing scripts.