dev.to

How to Install Oracle SQL Developer on Ubuntu 20.04

5-6 minutes

This is a fairly straightforward guide to install Oracle SQL Developer on Ubuntu 20.04

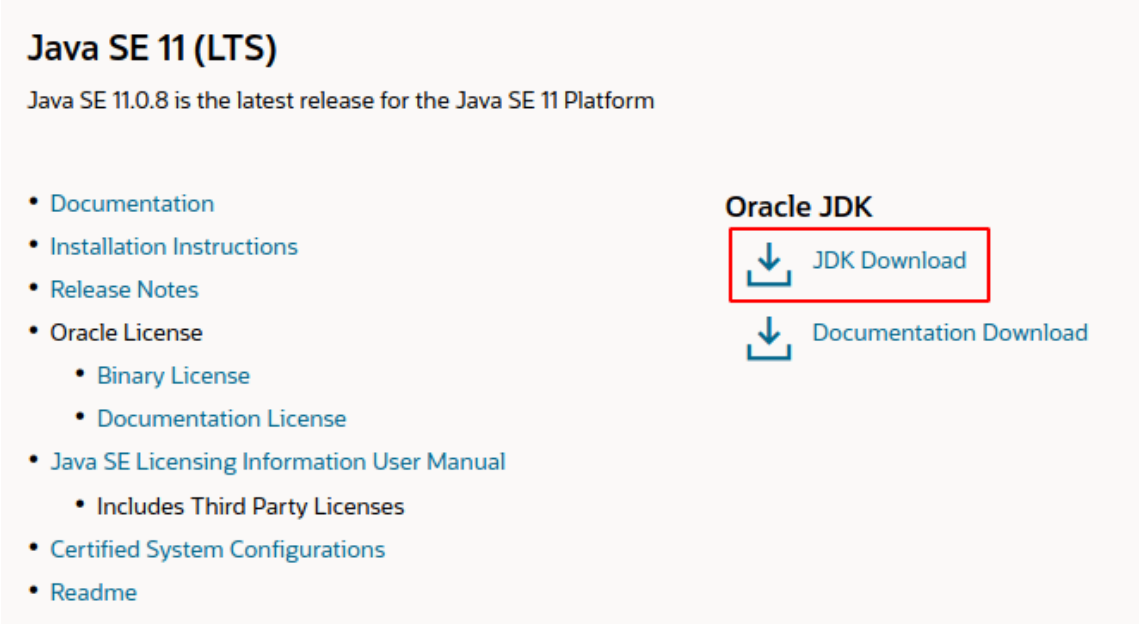
Prerequisite

- Oracle JDK 8/11
- Oracle SQL Developer

Downloading Prerequisite

Oracle JDK 8/11

1. Go to download Oracle JDK page
2. I will use Oracle JDK 11 because it has a .deb installation file which can be easily installed using `dpkg`



3. Download Oracle JDK 11 for Debian package (at the time of this post, the version is 11.0.8), you will be prompted to sign in using oracle account to download

Oracle SQL Developer

1. Go to download Oracle SQL Developer page
2. Download Oracle SQL Developer for Other Platforms (at the time of this post, the version is 20.2)

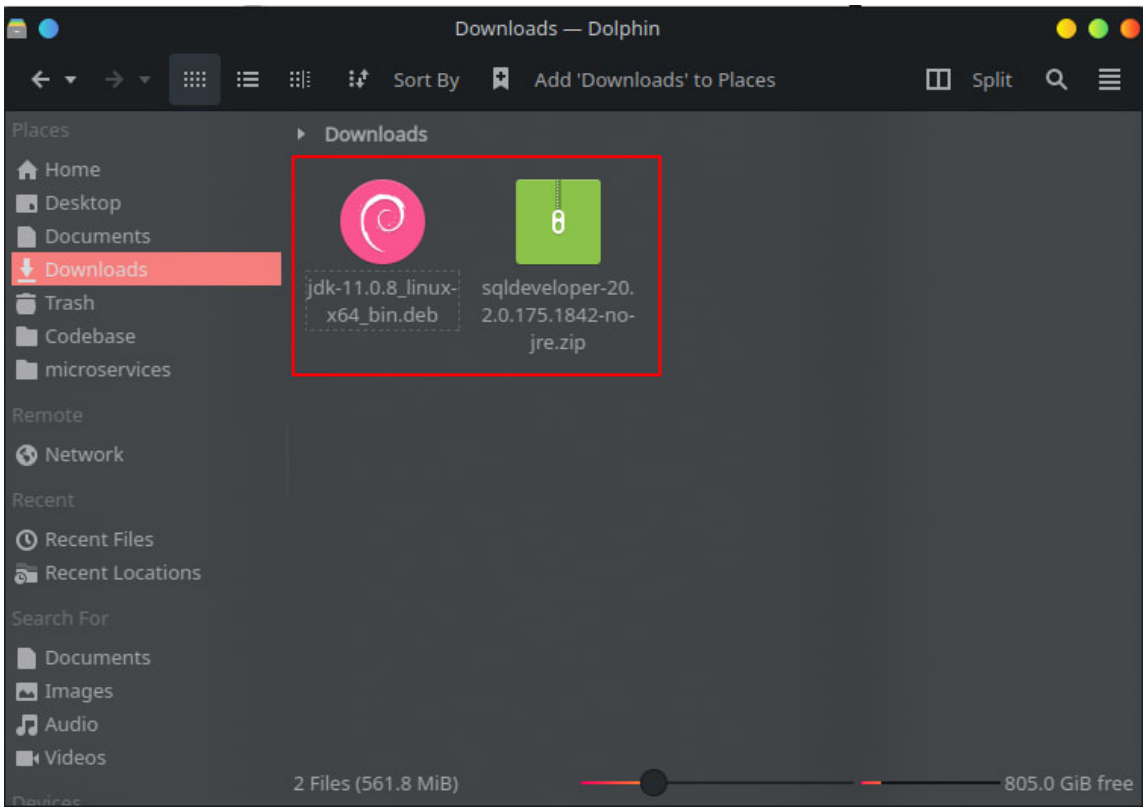
SQL Developer 20.2 Downloads

Version 20.2.0.175.1842 - June 25,2020

- Release Notes
- Bugs Fixed
- Documentation

Platform	Download	Notes
Windows 64-bit with JDK 8 included	Download (494 MB)	• MD5: c445a894c09f3b2c039e0fb64b4d41e9 • SHA1: c1ea4ce7c25e6718fa9ee50df970c7d2eacd6bd8 • Installation Notes
Windows 32-bit/64-bit	Download (413 MB)	• MD5: 457dd75e626695b3262f38ea4f65c350 • SHA1: 79810d37bf8c442f975323215236abffef5a8ab0 • Installation Notes • JDK 8 or 11 required
Mac OSX	Download (341 MB)	• MD5: be4b3739ebe8fc2f14ac3577b396ff2b • SHA1: 9024e24101098c648520684080baa600ef287636 • Installation Notes • JDK 8 or 11 required
Linux RPM	Download (404 MB)	• MD5: cb9b7a26a4424c55b3fc6bc953eba29b • SHA1: e9011fc2d3a0176e2b353c4708d7b8939f0d008c • Installation Notes • JDK 8 or 11 required
Other Platforms	Download (413 MB)	• MD5: 457dd75e626695b3262f38ea4f65c350 • SHA1: 79810d37bf8c442f975323215236abffef5a8ab0 • Installation Notes • JDK 8 or 11 required

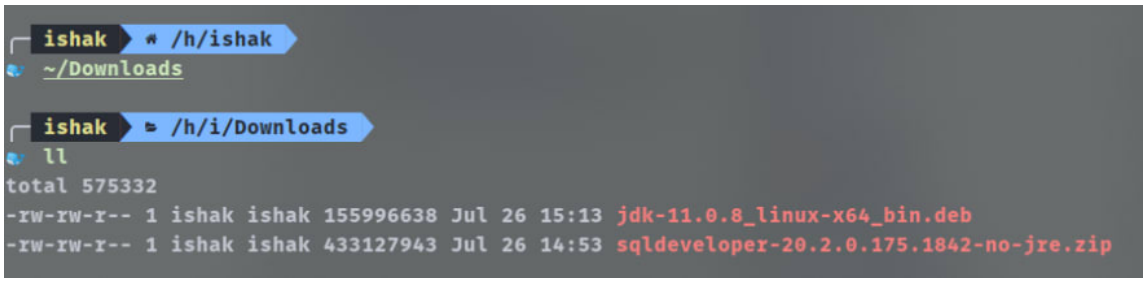
Prerequisite Completed



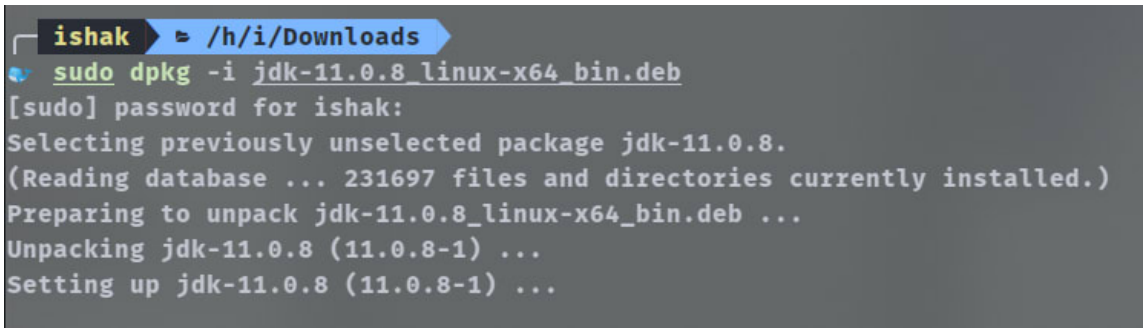
Install Oracle JDK 11 and Oracle SQL Developer

Oracle JDK 11

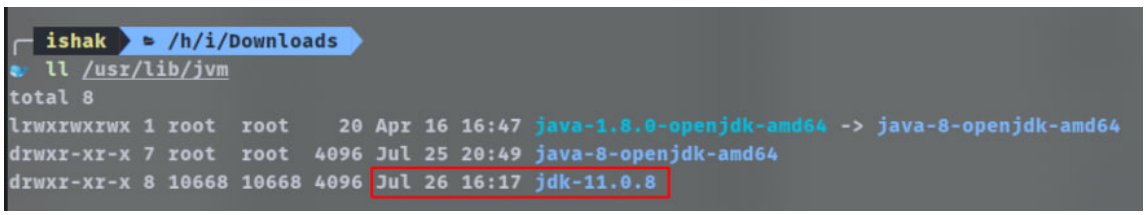
1. Open your terminal, go to directory where your prerequisite files are located (in my case it's in `~/Downloads`)



2. Install Oracle JDK 11 by using command `sudo dpkg -i [YOUR_ORACLE_JDK_PACKAGE.deb]`, in my case it's `sudo dpkg -i jdk-11.0.8_linux-x64_bin.deb`

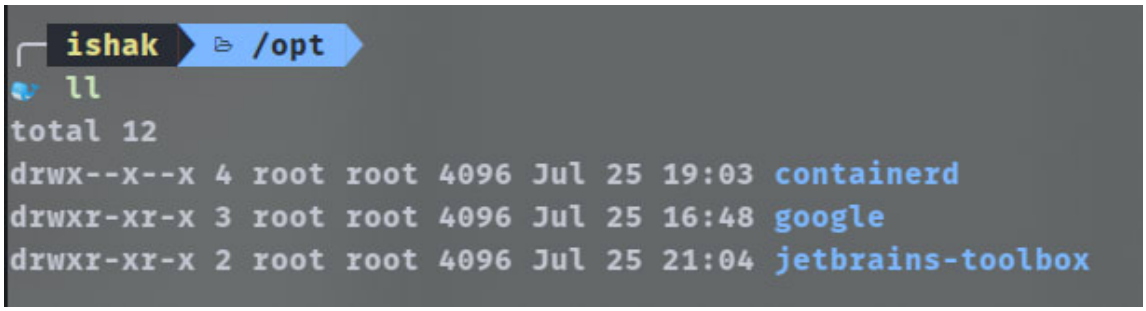


3. Verify your installation by listing the directory of `/usr/lib/jvm`

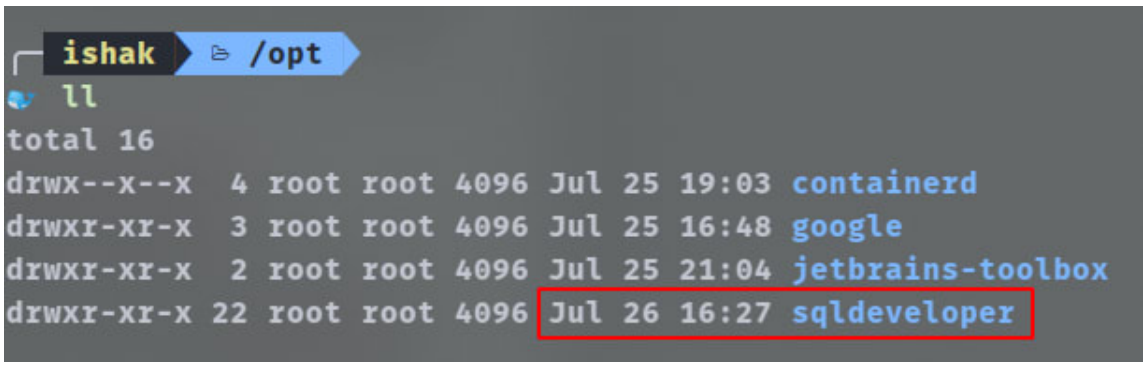


Oracle SQL Developer 20.2

1. Open your terminal, go to `/opt` directory. This is where i will store the sqldeveloper application, you can choose other directory, but this my preference (and i read also that `/opt` is for 3rd party apps that we cannot install via `apt` package manager)



2. Unzip Oracle SQL Developer with command `sudo unzip [YOUR_SQL_DEVELOPER_FILE_WITH_LOCATION].zip`, in my case it's `sudo unzip ~/Downloads/sqldeveloper-20.2.0.175.1842-no-jre.zip`. By default the `unzip` program will extract the zip file into the current directory, since we are in `/opt` now, we don't need to specify target directory.



3. Locate your Oracle JDK installation under `/usr/lib/jvm`, we'll need this location to tell Oracle SQL Developer where our Oracle JDK is located. In my case it's `/usr/lib/jvm/jdk-11.0.8`
4. Go inside the `sqldeveloper` directory

```
ishak ▷ /opt/sqldeveloper
ll
total 180
drwxr-xr-x  2 root root  4096 Jul 26 16:27 configuration
drwxr-xr-x  4 root root  4096 Jul 26 16:27 dataminer
drwxr-xr-x  2 root root  4096 Jul 26 16:27 dropins
drwxr-xr-x  2 root root  4096 Jul 26 16:27 equinox
drwxr-xr-x  2 root root  4096 Jul 26 16:27 external
-rw-r--r--  1 root root  1404 Jun 23 18:42 icon.png
drwxr-xr-x  9 root root  4096 Jul 26 16:27 ide
drwxr-xr-x  3 root root  4096 Jul 26 16:27 javavm
drwxr-xr-x  3 root root  4096 Jul 26 16:27 jdbc
drwxr-xr-x  6 root root  4096 Jul 26 16:27 jdev
drwxr-xr-x  2 root root  4096 Jul 26 16:27 jlib
drwxr-xr-x  2 root root  4096 Jul 26 16:27 jviews
drwxr-xr-x  2 root root  4096 Jul 26 16:27 module
drwxr-xr-x 19 root root  4096 Jul 26 16:27 modules
drwxr-xr-x  5 root root  4096 Jul 26 16:27 netbeans
drwxr-xr-x  2 root root  4096 Jul 26 16:27 orakafka
drwxr-xr-x  3 root root  4096 Jul 26 16:27 rdbms
drwxr-xr-x  3 root root  4096 Jul 26 16:27 sleepycat
drwxr-xr-x  6 root root  4096 Jul 26 16:27 sqldeveloper
-rw-r--r--  1 root root 90744 Jun 23 19:17 sqldeveloper.exe
-rwxr-xr-x  1 root root    71 Jun 23 18:42 sqldeveloper.sh
drwxr-xr-x  3 root root  4096 Jul 26 16:27 sqlj
drwxr-xr-x  3 root root  4096 Jul 26 16:27 svnkit
```

5. You can see that `sqldeveloper.sh` has executable permission so that we can run it by doing `./sqldeveloper.sh` or `sh sqldeveloper.sh` in the current directory.
6. Run the `sqldeveloper.sh` file, you will be prompted to enter the Oracle JDK location, just paste it in and press enter

```
ishak ▷ /opt/sqldeveloper
./sqldeveloper.sh

Oracle SQL Developer
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Default JDK not found
Type the full pathname of a JDK installation (or Ctrl-C to quit), the path will be stored in /home/ishak/.sqldeveloper
/20.2.0/product.conf
/usr/lib/jvm/jdk-11.0.8
```
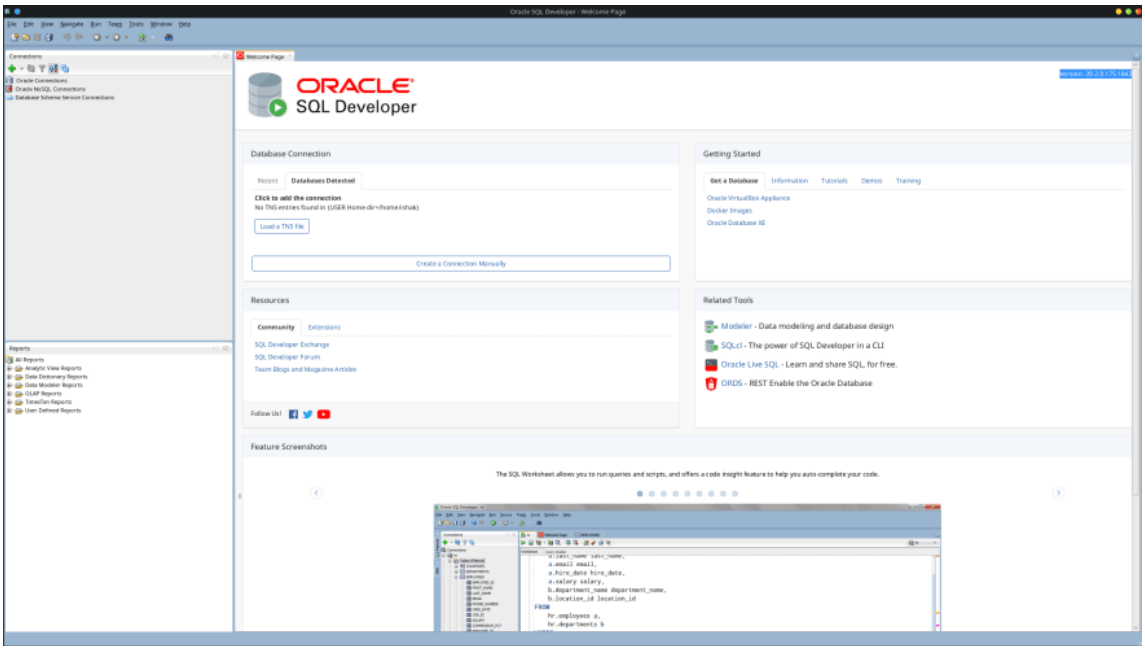

7. You will see Oracle SQL Developer starting



8. Installation done! You can use the application by executing the `sqldeveloper.sh`

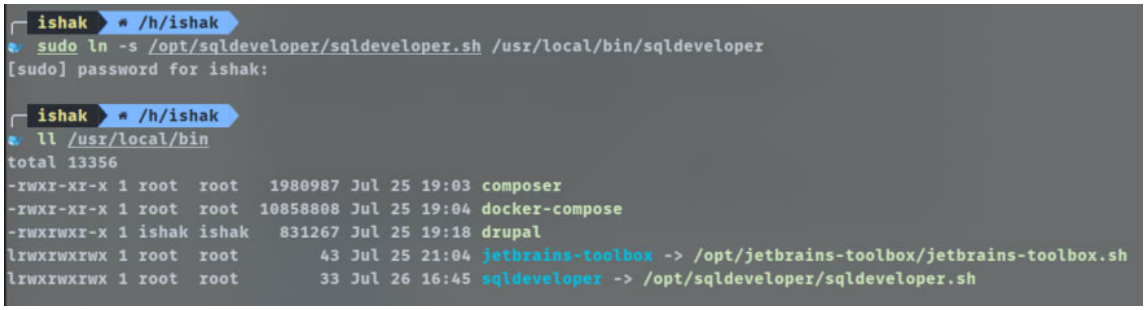
   At this point, the installation process is done and we can use the application. But it's quite troublesome for us to always open the terminal and execute the script to run the application.

   Create a link to our `sqldeveloper.sh`

1. Open your terminal and type command `sudo ln -s [YOUR_SQLDEVELOPER.SH_PATH] /usr/local/bin/sqldeveloper`, in my case it's `sudo ln -s /opt/sqldeveloper/sqldeveloper.sh /usr/local`

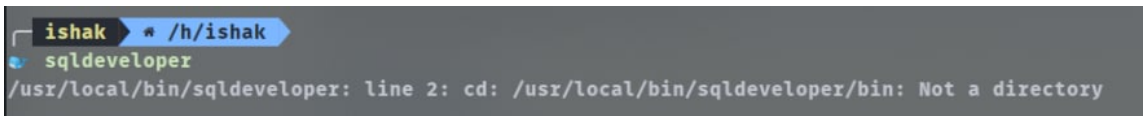
`/bin/sqldeveloper`

2. Verify that link has been created.



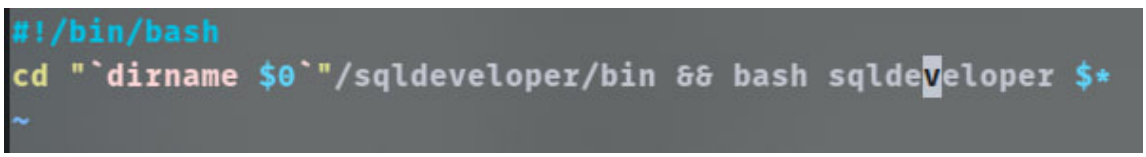
3. Now we can execute our application with command `sqldeveloper` from any directory. The reason why we put our link inside `/usr/local/bin` is so that it's available globally.

4. Go to your `$HOME` directory and execute the command `sqldeveloper`. You will get an error like this.



5. The error happened because it's trying to execute a syntax inside `sqldeveloper.sh` that uses relative path to navigate the directory. To fix this problem, what we need to do is edit the `sqldeveloper.sh` to execute the sqldeveloper binary

6. Open `sqldeveloper.sh` with your text editor. In my case, i will use `vim`. Remember to use `sudo` because this file belongs to `root`. Your file content should look like this now.



7. We will tell this script to execute the sqldeveloper binary directly without navigating to other directory by using this command `/opt/sqldeveloper/sqldeveloper/bin/sqldeveloper $*`, your file should look like this now.

```
#!/bin/bash
/opt/sqldeveloper/sqldeveloper/bin/sqldeveloper $*
~
```

8. Save the file and try `sqldeveloper` command again, you should be able to start Oracle SQL Developer now.

Create a desktop shortcut

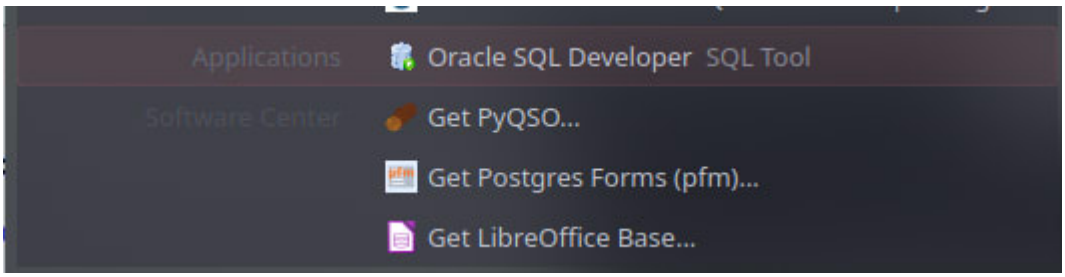
1. Desktop shortcuts are stored in `/usr/share/applications` with `.desktop` extension. So we will create a new file in that directory with the name `sqldeveloper.desktop`.

```
ishak  /h/ishak
sudo vim /usr/share/applications/sqldeveloper.desktop
```

2. Inside your file should look like this.

```
[Desktop Entry]
Name=Oracle SQL Developer
Comment=SQL Developer from Oracle
GenericName=SQL Tool
Exec=/usr/local/bin/sqldeveloper
Icon=/opt/sqldeveloper/icon.png
Type=Application
StartupNotify=true
Categories=Utility;Oracle;Development;SQL;
```

1. Save your file
2. Verify that your shortcut is available to use by searching in application menu.



And that's it. You have completed the installation and created shortcut for Oracle SQL Developer.