

[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

Java SE 11 (LTS)

Java SE 11.0.8 is the latest release for the Java SE 11 Platform

- [Documentation](#)
- [Installation Instructions](#)
- [Release Notes](#)
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 - [Binary License](#)
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- [Java SE Licensing Information User Manual](#)
 - [Includes Third Party Licenses](#)
- [Certified System Configurations](#)
- [Readme](#)





Oracle JDK

[JDK Download](#)[Documentation Download](#)

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

Java SE Development Kit 11.0.8

This software is licensed under the Oracle Technology Network License Agreement for Oracle Java SE

Product / File Description	File Size	Download
Linux Debian Package	148.77 MB	 jdk-11.0.8_linux-x64_bin.deb
Linux RPM Package	155.45 MB	 jdk-11.0.8_linux-x64_bin.rpm
Linux Compressed Archive	172.66 MB	 jdk-11.0.8_linux-x64_bin.tar.gz
macOS Installer	166.84 MB	 jdk-11.0.8_osx-x64_bin.dmg






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)

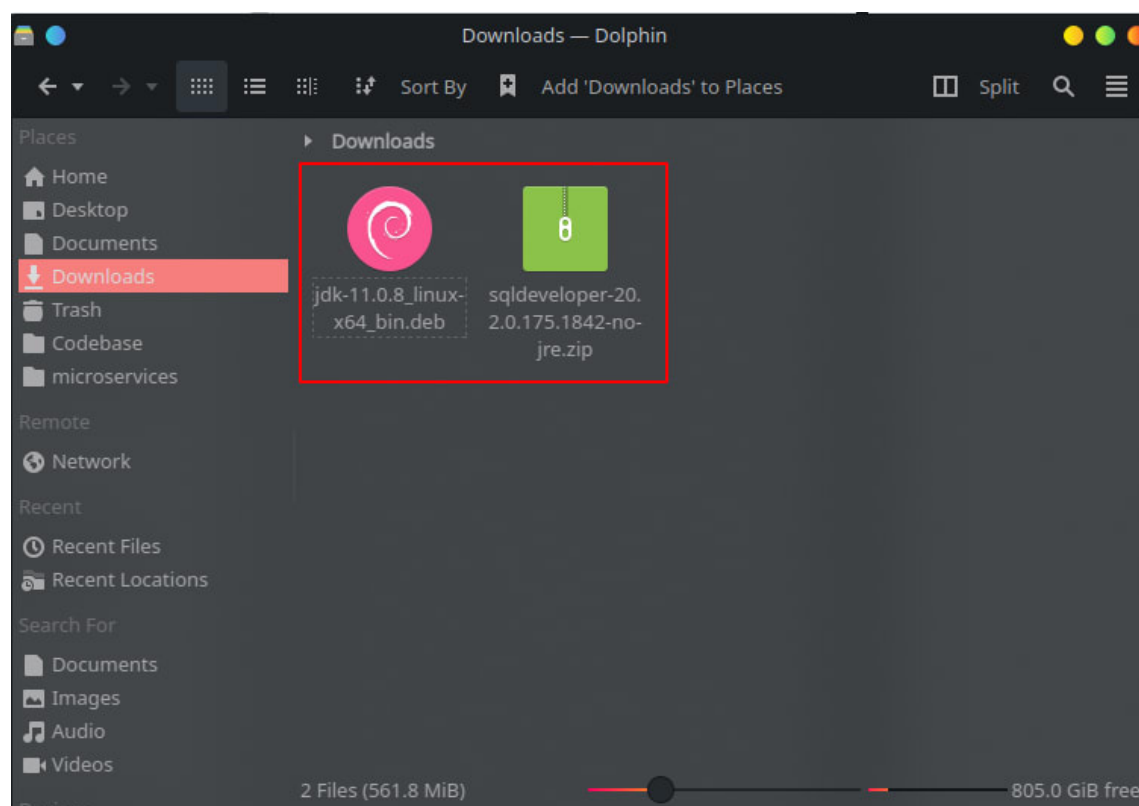
SQL Developer 20.2 Downloads

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)	<ul style="list-style-type: none">MD5: c445a894c09f3b2c039e0fb64b4d41e9SHA1: c1ea4ce7c25e6718fa9ee50df970c7d2eacd6bd8Installation Notes
Windows 32-bit/64-bit	 Download (413 MB)	<ul style="list-style-type: none">MD5: 457dd75e626695b3262f38ea4f65c350SHA1: 79810d37bf8c442f975323215236abffef5a8ab0Installation NotesJDK 8 or 11 required
Mac OSX	 Download (341 MB)	<ul style="list-style-type: none">MD5: be4b3739ebe8fc2f14ac3577b396ff2bSHA1: 9024e24101098c648520684080baa600ef287636Installation NotesJDK 8 or 11 required
Linux RPM	 Download (404 MB)	<ul style="list-style-type: none">MD5: cb9b7a26a4424c55b3fc6bc953eba29bSHA1: e9011fc2d3a0176e2b353c4708d7b8939f0d008cInstallation NotesJDK 8 or 11 required
Other Platforms	 Download (413 MB)	<ul style="list-style-type: none">MD5: 457dd75e626695b3262f38ea4f65c350SHA1: 79810d37bf8c442f975323215236abffef5a8ab0Installation NotesJDK 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)

```
ishak ~ /h/ishak
~/Downloads

ishak ~ /h/i/Downloads
ll
total 575332
-rw-rw-r-- 1 ishak ishak 155996638 Jul 26 15:13 jdk-11.0.8_linux-x64_bin.deb
-rw-rw-r-- 1 ishak ishak 433127943 Jul 26 14:53 sqldeveloper-20.2.0.175.1842-no-jre.zip
```

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`

```
ishak ~ /h/i/Downloads
sudo dpkg -i jdk-11.0.8_linux-x64_bin.deb
[sudo] password for ishak:
Selecting previously unselected package jdk-11.0.8.
(Reading database ... 231697 files and directories currently installed.)
Preparing to unpack jdk-11.0.8_linux-x64_bin.deb ...
Unpacking jdk-11.0.8 (11.0.8-1) ...
Setting up jdk-11.0.8 (11.0.8-1) ...
```

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

```
ishak ~ /h/i/Downloads
ll /usr/lib/jvm
total 8
lrwxrwxrwx 1 root root 20 Apr 16 16:47 java-1.8.0-openjdk-amd64 -> java-8-openjdk-amd64
drwxr-xr-x 7 root root 4096 Jul 25 20:49 java-8-openjdk-amd64
drwxr-xr-x 8 10668 10668 4096 Jul 26 16:17 jdk-11.0.8
```

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)

```
ishak /opt
ll
total 12
drwx--x--x 4 root root 4096 Jul 25 19:03 containerd
drwxr-xr-x 3 root root 4096 Jul 25 16:48 google
drwxr-xr-x 2 root root 4096 Jul 25 21:04 jetbrains-toolbox
```

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.

```
ishak /opt
ll
total 16
drwx--x--x 4 root root 4096 Jul 25 19:03 containerd
drwxr-xr-x 3 root root 4096 Jul 25 16:48 google
drwxr-xr-x 2 root root 4096 Jul 25 21:04 jetbrains-toolbox
drwxr-xr-x 22 root root 4096 Jul 26 16:27 sqldeveloper
```

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.

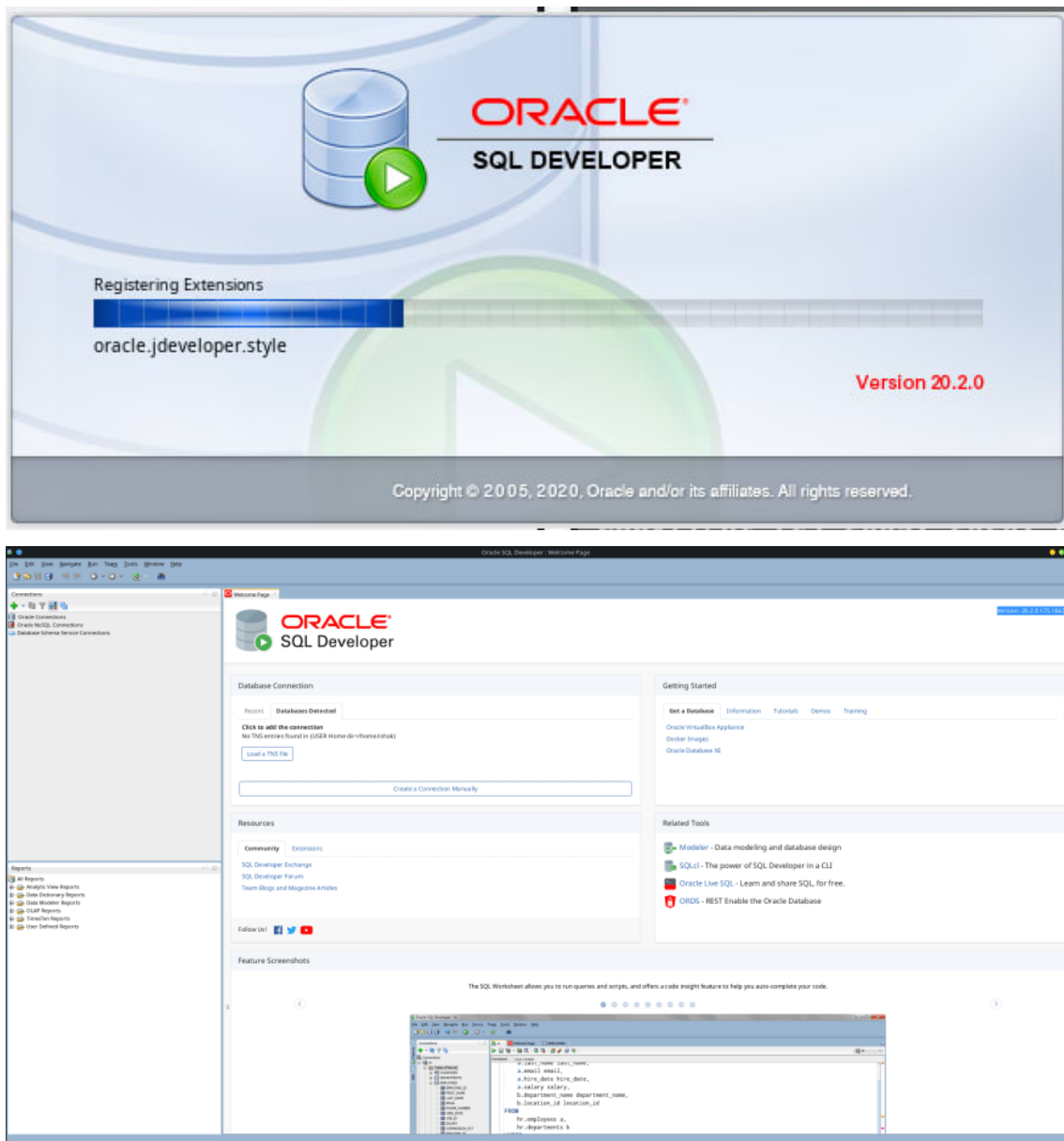
6. Run the `sqldeveloper.sh` file, you will be prompted to enter the Oracle JDK location, just paste it in and press enter

```
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.

```
ishak ~ # /h/ishak
ishak ~ # sudo ln -s /opt/sqldeveloper/sqldeveloper.sh /usr/local/bin/sqldeveloper
[sudo] password for ishak:

ishak ~ # /h/ishak
ishak ~ # ll /usr/local/bin
total 13356
-rwxr-xr-x 1 root root 1980987 Jul 25 19:03 composer
-rwxr-xr-x 1 root root 10858808 Jul 25 19:04 docker-compose
-rwxrwxr-x 1 ishak ishak 831267 Jul 25 19:18 drupal
lrwxrwxrwx 1 root root 43 Jul 25 21:04 jetbrains-toolbox -> /opt/jetbrains-toolbox/jetbrains-toolbox.sh
lrwxrwxrwx 1 root root 33 Jul 26 16:45 sqldeveloper -> /opt/sqldeveloper/sqldeveloper.sh
```

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.

```
ishak ~ # /h/ishak
ishak ~ # sqldeveloper
/usr/local/bin/sqldeveloper: line 2: cd: /usr/local/bin/sqldeveloper/bin: Not a directory
```

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.

```
#!/bin/bash
cd "`dirname $0`"/sqldeveloper/bin && bash sqldeveloper $*
```

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

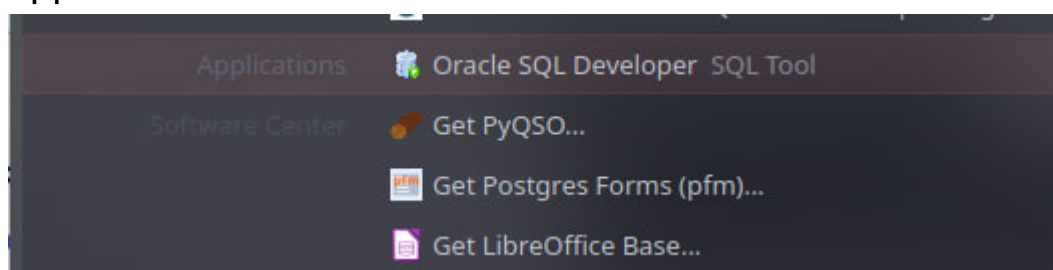
Icon=/opt/sqldeveloper/icon.png

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.