# Set things up…

Always want to know exactly where we are? What do we do? So,in my case

- Product is Linux x64 and the system runs on Ubuntu 20.04
- Precisely, I am looking for java 8
- I need 3 things to perfectly set up the development environment

- Download java development environment-JDK
- Download Eclipse IDE, **choose the appropriate IDE name "Eclipse for java developers"**
- A text editor which might be helpful to write,solve and execute small instance of problems.

**- Download and install java from Oracle download page**

- Somehow I learned to use the compression tool "tar". But if I face issue then I would use an interactive GUI to understand file compression and extraction in an interactive way.
- Try to know more about the hardware information before proceeding to install software programs.

## Getting started with java 1.8

**1 Create Java Virtual Machine folder**

sudo mkdir /usr/lib/jvm

( mkdir->make directory )( /usr/lib/jvm->working directory )

**2 Add directory to the stack**

pushd /usr/lib/jvm

Popd to remove specified directories from the stack

popd

**"You can also use cd( change directory ) command, that is totally okay"**

**3 Extract the downloaded jdk-xuxxx-linux-x64.tar.gz in the Downloads folder**

tar -xvzf ~/Downloads/jdk-8u271-linux-x64.tar.gz

Get help from ***tar --help***, manual page using command ***man tar***

**4 Open the environment file using editors any of your favourite configuration editors nano,vi,etc.,**

sudo vim /etc/environment

Then, set-up a variable environment. It might look this

PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/
usr/games:/usr/local/games:/usr/lib/jvm/jdk1.8.0_271/bin"
JAVA_HOME="/usr/lib/jvm/jdk1.8.0_271"

Good, keep going! Basic vi command

i -> insert

visual mode-> For cut,copy and paste.

wq! -> to save and exit

w -> to save and continue editing

q! -> quit

escape -> switch from insertion mode to other operations.

Example: Press escape key

Then shift+semicolon(:) and type wq!

**5 Set java location**

sudo update-alternatives --install "/usr/bin/java" "java" "/usr/lib/jvm/jdk1.8.0_271/bin/java" 0
sudo update-alternatives --install "/usr/bin/javac" "javac" "/usr/lib/jvm/jdk1.8.0_271/bin/javac" 0
sudo update-alternatives --set java /usr/lib/jvm/jdk1.8.0_271/bin/java
sudo update-alternatives --set javac /usr/lib/jvm/jdk1.8.0_271/bin/javac

**6 Verify the configuration**

update-alternatives --list java
update-alternatives --list javac

**7 Open the bashrc with vi-editor**

sudo vi ~/.bashrc
And add the following at the bottom of the file

```
JAVA_HOME="/usr/lib/jvm/jdk1.8.0_271"
MAVEN_HOME="/usr/share/maven"
PATH=$PATH:$HOME/bin:$JAVA_HOME/bin:$MAVEN_HOME/bin
export JAVA_HOME
export MAVEN_HOME
export PATH
```

**“Please, make sure you save the content.”**

**8 Verify the java version and java_home path**

```
java -version && echo $JAVA_HOME
```