INSTALLING JAVA ON UBUNTU

Update your system:

```
sudo apt-get update && sudo apt-get upgrade
```

Install the `software-properties-common` package if you don't already have it. This provides an easier way to add new repositories:

```
sudo apt-get install software-properties-common
```

Add the Java PPA:

```
sudo add-apt-repository ppa:webupd8team/java
```

Update the local package cache:

```
sudo apt-get update
```

Install the metapackage:

```
sudo apt-get install oracle-java8-installer
```

Verify that Java and the Java compiler have been properly installed:

```
java -version
javac -version
```

these commands should return the following:

```
java version "1.8.0_131"
Java(TM) SE Runtime Environment (build 1.8.0_131-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.131-b11, mixed mode)

javac 1.8.0_131
```

Since the PPA only provides an installer, and not updates for the JDK itself, you may want to delete it when you're finished in order to keep your repositories organized:

```
sudo add-apt-repository -r ppa:webupd8team/java
```

Set Java Home Environment

Many applications include code or configuration that references the `JAVA_HOME` environment variable. This variable points them to the Java binary file, allowing them to run Java code.

To set the variable for your system:

```
echo "JAVA_HOME=$(which java)" | sudo tee -a /etc/environment
```

Reload your system's environment variables:

```
source /etc/environment
```

Verify the variable was set correctly:

```
echo $JAVA_HOME
```

This should return the path to the Java binary.
To install OpenJDK:

```
sudo apt-get install openjdk-8-jdk
```

However, if you only need to run applications that you've already downloaded, you can save a bit of disk space by installing the OpenJRE (Java runtime environment):

```
sudo apt-get install openjdk-8-jre
```