

How to install Java on a Raspberry Pi

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Install Java 11 on Raspberry Pi

OpenJDK 11 is the default Java development in the latest Raspbian operating system, based on Debian 10, Buster.

Run the following commands to install OpenJDK 11 JDK on Raspberry Pi:

```
sudo apt update sudo apt install default-jdk
```

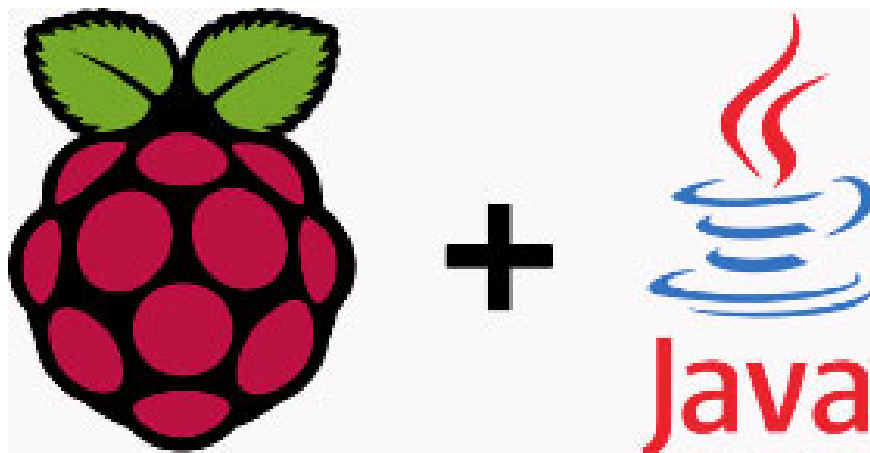
Once the installation is complete, verify by checking the Java version:

```
java -version
```

The output will look like this:

```
openjdk version "11.0.5" 2019-10-15 OpenJDK Runtime Environment (build 11.0.5+10)
```

You have successfully installed Java on the Pi and you can start using it.



Installing Java on the Raspberry Pi is simple!

Install Java 8 on Raspberry Pi

Previous Java LTS 8 version is still widely supported and used. If your application requires Java 8, install it by typing:

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

Verify installation by printing Java version:

```
java -version
```

The output will look like this:

```
openjdk version "1.8.0_212" OpenJDK Runtime Environment (build 1.8.0_212-8u212-b07)
```

Set the default version

If you have multiple Java versions installed on Pi, run **java -version** command to check default version:

```
java -version
```

To change the default version, use the **update-alternatives** tool :

```
sudo update-alternatives --config java
```

The output will look like below:

```
There are 2 choices for the alternative java (providing /usr/bin/java). Selection
```

You should see a list of all installed Java versions. Enter the version number you want to set as default and press **Enter**.

Environment variable JAVA_HOME

The JAVA_HOME environment variable is used by some Java applications to determine where to install Java. To set the JAVA_HOME environment variable, use the update-alternatives command to find out where to install Java:

```
sudo update-alternatives --config java
```

In this example, the installation paths are as follows:

1. OpenJDK 11 is located at **/usr/lib/jvm/java-11-openjdk-armhf/bin/java**
2. OpenJDK 8 is located at **/usr/lib/jvm/java-8-openjdk-armhf/jre/bin/java**

After you find the path of the Java installation, open the `/etc/environment` file:

```
sudo nano /etc/environment
```

Assuming you want to set JAVA_HOME to OpenJDK 11, add the following line at the end of the file:

```
/etc/environment JAVA_HOME="/usr/lib/jvm/java-11-openjdk-armhf/bin/java"
```

For the changes to take effect on the current shell, you can either log out and log in again or run the following source command:

```
source /etc/environment
```

To verify that the JAVA_HOME variable has been set, type:

```
echo $JAVA_HOME
```

You will see the path to the Java 11 binary:

```
/usr/lib/jvm/java-11-openjdk-armhf/bin/java
```

The `/etc/environment` is a system-wide configuration file that is used by all users. If you want to set the `JAVA_HOME` variable on a per-user basis, add the line to `.bashrc` or any other configuration file loaded when the user logs in.

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