

# Java

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Batch: Evening

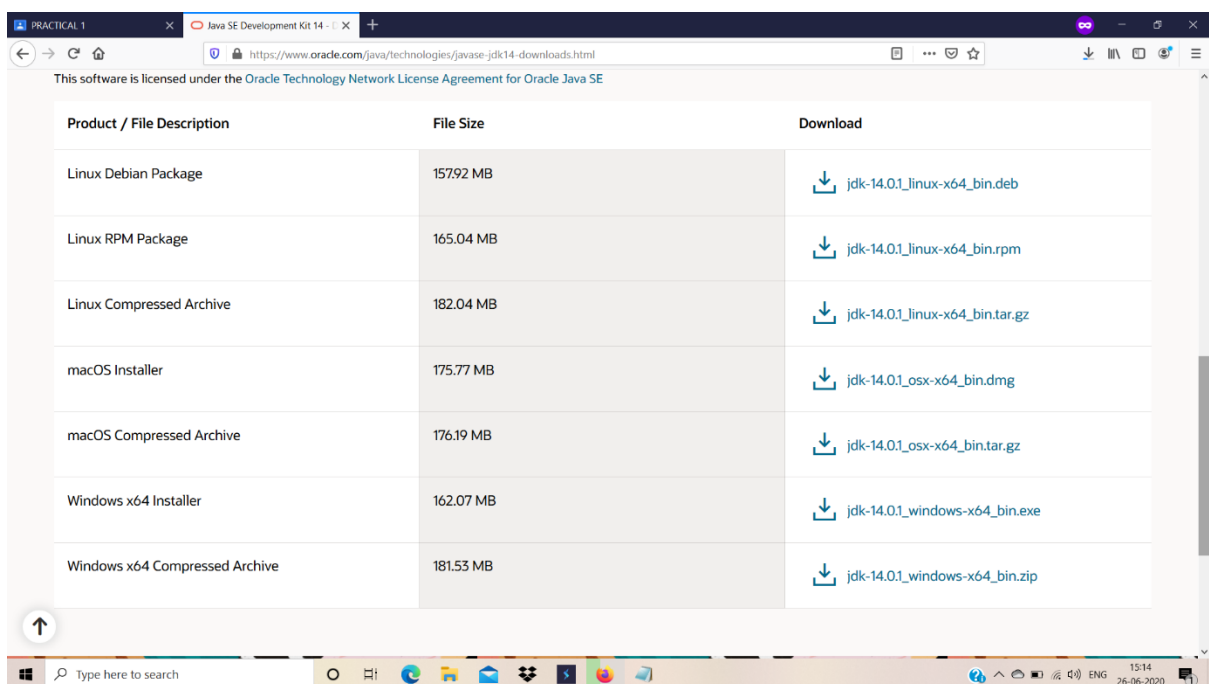
# Practical: 1

**Aim:** Install JDK, write a simple “Hello World” or similar java program, compilation, debugging, executing using java compiler and interpreter.

**Step 1:** Go to java’s official site:

<https://www.oracle.com/java/technologies/javase-downloads.html>

and download JDK according to your operating system.



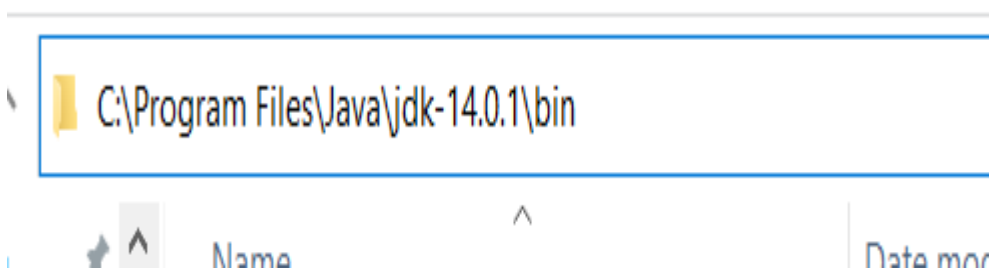
The screenshot shows a web browser window displaying the Oracle Java SE Downloads page. The page title is "Java SE Development Kit 14 - X". The URL in the address bar is <https://www.oracle.com/java/technologies/javase-downloads.html>. Below the header, there is a table with three columns: "Product / File Description", "File Size", and "Download". The table lists seven download options for JDK-14.0.1, categorized by operating system and format. Each row includes a download icon and the specific file name.

Product / File Description	File Size	Download
Linux Debian Package	157.92 MB	<a href="#">jdk-14.0.1_linux-x64_bin.deb</a>
Linux RPM Package	165.04 MB	<a href="#">jdk-14.0.1_linux-x64_bin.rpm</a>
Linux Compressed Archive	182.04 MB	<a href="#">jdk-14.0.1_linux-x64_bin.tar.gz</a>
macOS Installer	175.77 MB	<a href="#">jdk-14.0.1_osx-x64_bin.dmg</a>
macOS Compressed Archive	176.19 MB	<a href="#">jdk-14.0.1_osx-x64_bin.tar.gz</a>
Windows x64 Installer	162.07 MB	<a href="#">jdk-14.0.1_windows-x64_bin.exe</a>
Windows x64 Compressed Archive	181.53 MB	<a href="#">jdk-14.0.1_windows-x64_bin.zip</a>

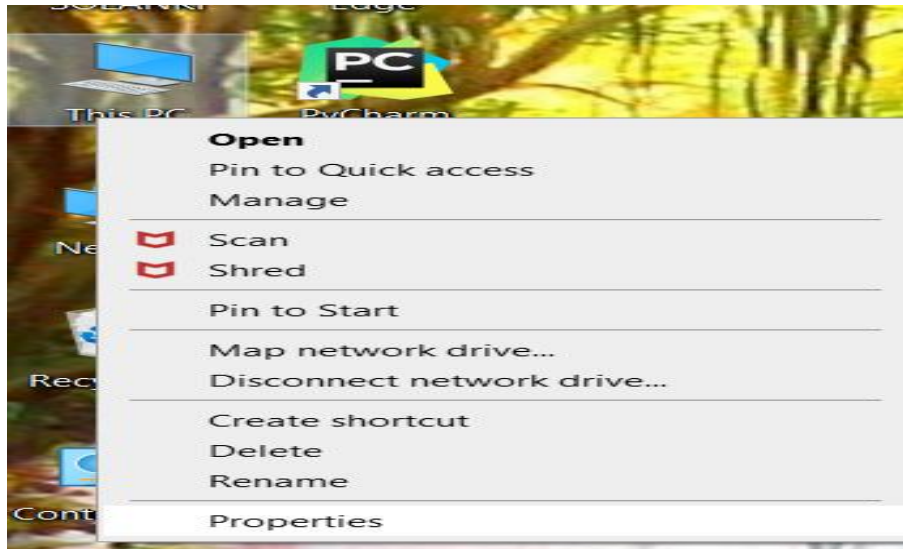
**Step 2:** When the installer is installed then simply run the installation setup by double clicking it. Complete the setup to install Java. Setup will take some time and it will install java on your pc.



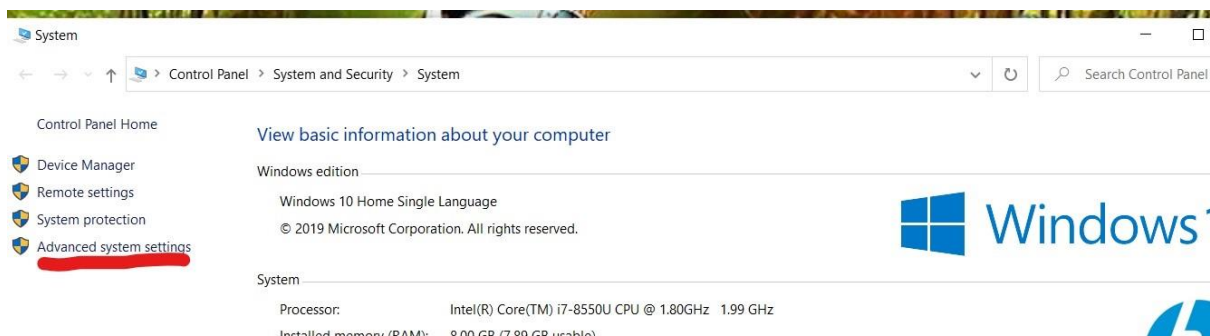
**Step 3:** Navigate to the 'bin' folder where your java is installed. By default, java is installed in C:\Program Files\Java\jdk-14.0.1\bin copy this file path.



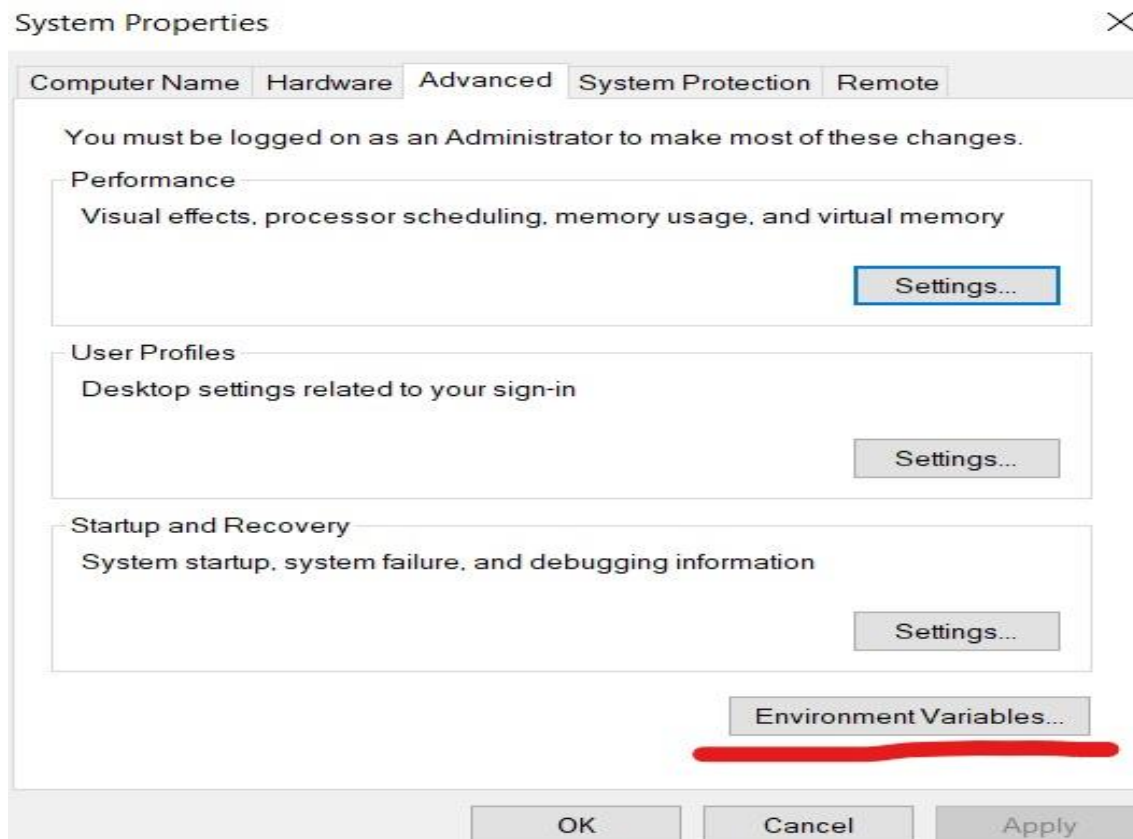
**Step 4:** After the setup is completed. We need to set path for java. For that we need right click “This PC” and open “Properties”



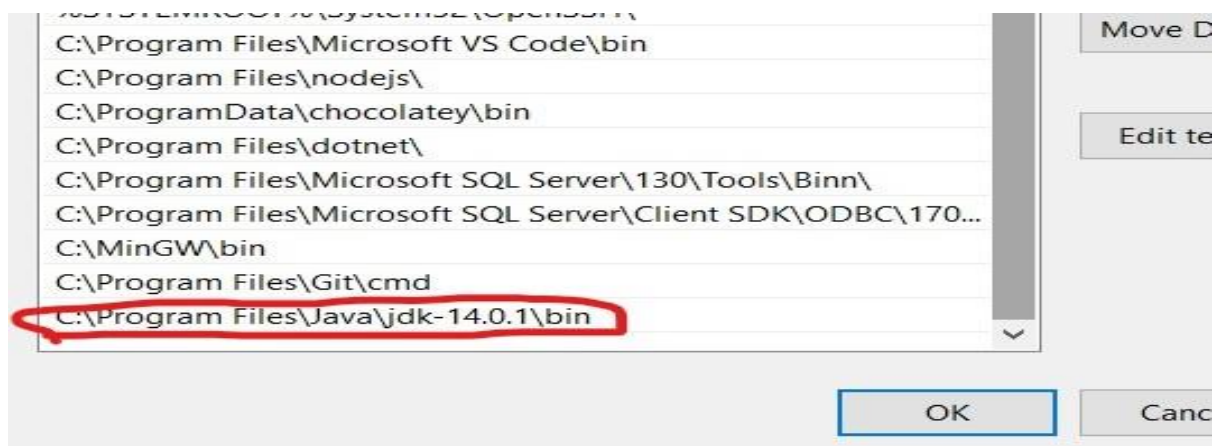
**Step 5:** Clicking on Properties tab will open Control panel. Then click on “Advance System Settings”



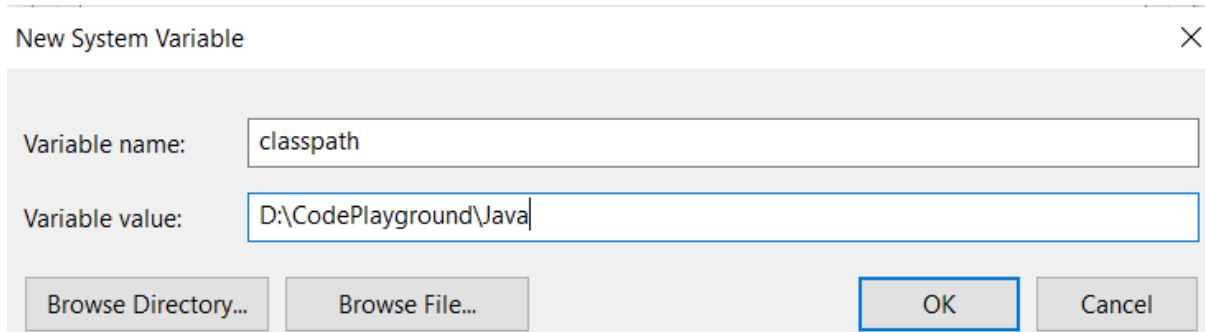
**Step 6:** Click on “Environment variables”. After that find ‘Path’ in system variables. After finding ‘Path’ click on edit.



**Step 7:** Click on “Add” and then paste the file path which we copied before.



**Step 8:** We can also specify 'classpath' variable which will specify the folder where we will write our java programs. It will be specified because JVM will look in provided path directory for classes. Click on "Add" button to add a new system variable.



New System Variable

Variable name: classpath

Variable value: D:\CodePlayground\Java

Browse Directory... Browse File... OK Cancel

**Step 9:** Open Command prompt and type command `java -version`  
This command will print the version of java which means our installation is successful.



```
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Ayush>java --version
java 14.0.1 2020-04-14
Java(TM) SE Runtime Environment (build 14.0.1+7)
Java HotSpot(TM) 64-Bit Server VM (build 14.0.1+7, mixed mode, sharing)

C:\Users\Ayush>
```

## **Program 1:** Print Hello world.

**File:** Hello.java

```
class Hello {  
    public static void main(String args[])  
    {  
        System.out.println("Hello World!");  
    }  
}
```

## **Output:**

```
D:\Sem5\Java\programs>javac Hello.java  
  
D:\Sem5\Java\programs>java Hello.java  
Hello World!  
  
D:\Sem5\Java\programs>
```

## Program 2: Print Student Data.

**File:** Info.java

```
public class Info {  
    public static void main(String[] args) {  
        System.out.println("\nEnroll\t:\t186170316556");  
        System.out.println("\nName\t:\tAyush Solanki");  
        System.out.println("\nDept\t:\tIT");  
        System.out.println("\nSem\t:\t5th");  
    }  
}
```

## Output:

```
D:\Sem5\Java\programs>javac Info.java  
D:\Sem5\Java\programs>java Info.java  
  
Enroll   :      186170316556  
  
Name      :      Ayush Solanki  
  
Dept      :      IT  
  
Sem       :      5th  
  
D:\Sem5\Java\programs>
```



## Program 2: Print Student Data.

**File:** Oprs.java

```
public class Oprs {  
    public static void main(String[] args) {  
        System.out.println("Addition of 10 and 5: ");  
        System.out.println(10+5);  
        System.out.println("Subtraction of 10 and 5: ");  
        System.out.println(10-5);  
        System.out.println("Multiplication of 10 and 5: ");  
        System.out.println(10*5);  
        System.out.println("Multiplication of 10 and 5: ");  
        System.out.println(10/5);  
    }  
}
```

## Output:

```
D:\Sem5\Java\programs>javac Oprs.java  
D:\Sem5\Java\programs>java Oprs.java  
Addition of 10 and 5:  
15  
Subtraction of 10 and 5:  
5  
Multiplication of 10 and 5:  
50  
Multiplication of 10 and 5:  
2  
D:\Sem5\Java\programs>
```

