

Instructions of installing JDK (Java Development Tool) on Windows 10 OS

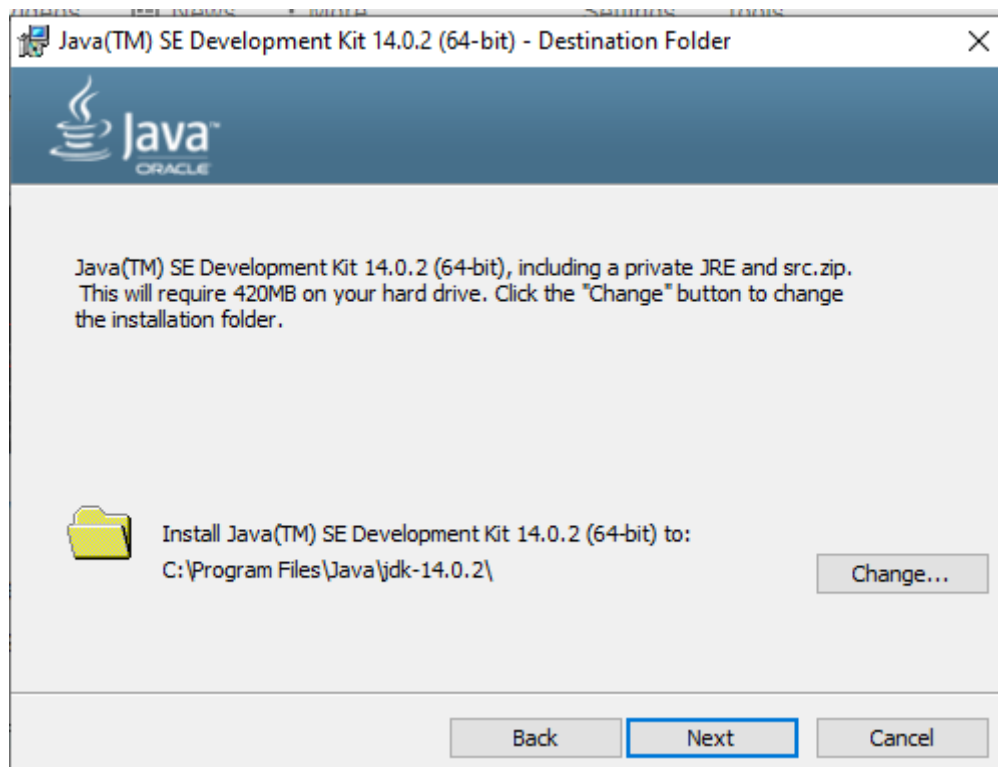
Step1: Download the JDK, i.e., jdk-14.0.2_windows-x64_bin.exe file from the below link

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

Note: Select and download the suitable JDK executable file as per the version of your Operating System, e.g., Windows10 64 bit or 32 bit.

Step2: Install the above downloaded executable file by double clicking it, which is shown below:





Step3: Setting up the PATH Environment Variable

The PATH variable allows us to run any executables that are located inside the paths specified in the variable at the command prompt without having to give the full path to the executable.

To set the PATH variable permanently, add the full path of the jdk-14.0.2\bin directory to the PATH variable. Typically, the full path is:

`C:\Program Files\Java\jdk-14.0.2\bin`

Note: If we do not set the PATH system variable, then you must specify the full path to the executable file every time that we run it. For example:

`C:\> " C:\Program Files\Java\jdk-14.0.2\bin\javac" Hello.java`

To set the PATH system variable on Windows 10, click windows start button and type “Control Panel”, then click on it and follow the below steps:

- i) Click on “Systems and Security”
- ii) Click on “Systems”
- iii) Click on “Advanced System Settings”
- iv) In the Advanced Tab, Click on “Environment Variables”
- v) Systems variable part, i.e., the lower part of the widow, select the “Path” variable and click on “Edit” and then click on “New” and then paste the location of the JDK bin installer that could be seen as below.
`C:\Program Files\Java\jdk-14.0.2\bin`
- vi) Then click “OK”, then again “OK”, and “Ok”.

The above steps conclude the installation of JDK on Windows 10 and setting up of Path variable that are required for running java programs.

Instructions for Compiling and Running First Java Program on Windows 10

1. Open a notepad file and type the below program

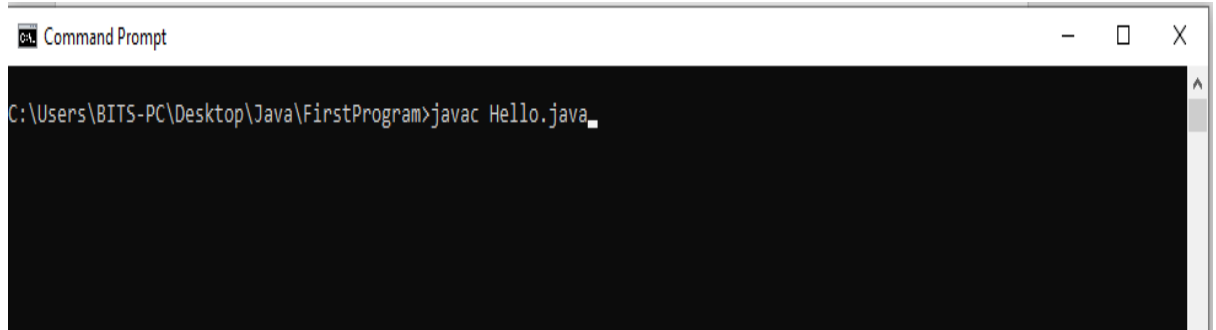
```
public class Hello{  
    public static void main(String args[]){  
        System.out.println("hello World");  
    }  
}
```

2. Save the above file as **Hello.java**

Note: File name should be same as the name of the public java class, i.e., Hello.

3. To compile the Hello.java file, open the **command prompt** from windows start button and browse it to the folder where Hello.java program file is kept. Then compile it by typing the below command:

javac Hello.java

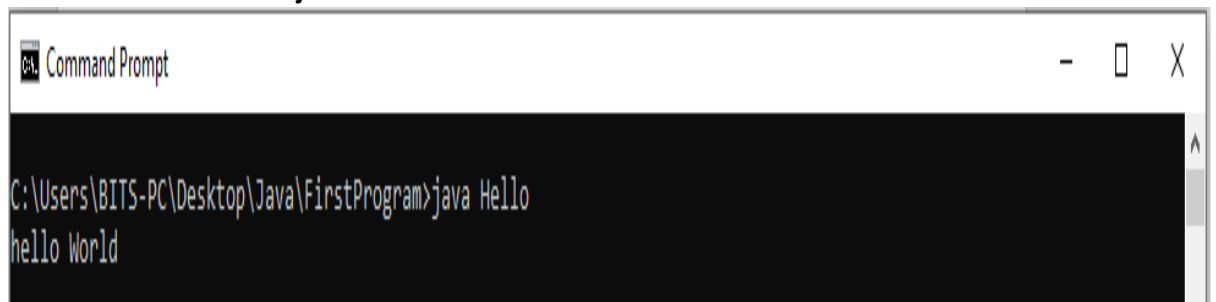


A screenshot of a Windows Command Prompt window. The title bar reads "Command Prompt". The command prompt shows the directory path "C:\Users\BITS-PC\Desktop\Java\FirstProgram" followed by the command "javac Hello.java" and a cursor at the end of the line.

Note: After successful compilation, Hello.java file gets translated to **Hello.class** file (byte code). It will display the errors if there are any in the source code of the program.

4. To run and see the output, type the below command:

java Hello



A screenshot of a Windows Command Prompt window. The title bar reads "Command Prompt". The command prompt shows the directory path "C:\Users\BITS-PC\Desktop\Java\FirstProgram" followed by the command "java Hello". Below the command, the output "hello World" is displayed.

Instructions of installing JDK (Java Development Tool) on Ubuntu 18

The below three steps are to be followed to install Oracle's official JDK on Ubuntu OS.

Step1: Download the JDK, i.e., jdk-14.0.2_linux-x64_bin.deb a debian file from the below link

<https://www.oracle.com/java/technologies/javase-jdk14-downloads.html>

Step2: Install the above downloaded debian file by typing the blow line on terminal.

```
sudo dpkg -i jdk-14.0.2_linux-x64_bin.deb
```

Step3: After the above installation is completed, set environment variables such as JAVA_HOME and PATH in **.bashrc** file. Please follow the below steps:

i) `sudo gedit ~/.bashrc`
(The above line opens .bashrc file, which is located in your home directory)

ii) Add the below two lines at the end of the .bashrc file

```
export JAVA_HOME=/usr/lib/jvm/jdk-14.0.2
```

```
export PATH=$JAVA_HOME/bin:$PATH
```

Note: /usr/lib/jvm/jdk-14.0.2 is the location of the jdk installed on your ubuntu system. The same location in your system should be set as value to the JAVA_HOME.

iii) Save and close the .bashrc file after adding the above two lines.

Instructions for Compiling and Running First Java Program on Ubuntu 18

i) Create a **Hello.java** file by typing the below line on terminal

```
gedit Hello.java
```

ii) Copy and paste the below code in Hello.java file

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

```
}  
}
```

- iii) To compile the above Hello.java file, browse it to the folder where Hello.java program file is kept. Then compile it by typing the below command.

javac Hello.java

Note: After successful compilation, Hello.java file gets translated to **Hello.class** file (byte code). It will display the errors if there are any in the source code of the program.

- iv) Type the below command on terminal to run and see the output.

java Hello

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