

How to run a Java program in Windows 10

To run a java program in Windows 10, we need first to install Java and then set up the environment variables. To do this, follow the following steps.

How to install Java?

Step 1) Visit the [oracle website](https://www.oracle.com/in/java/technologies/javase-downloads.html) and then click on "JDK Download".

Java SE Downloads

Java Platform, Standard Edition

Java SE 13

Java SE 13.0.2 is the latest release for the Java SE Platform








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Oracle JDK

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Step 2) Now, on the next page, download the .exe file of JDK for windows.

Java SE Development Kit 13.0.2		
This software is licensed under the Oracle Technology Network License Agreement for Oracle Java SE		
Product / File Description	File Size	Download
Linux Debian Package	155.72 MB	 jdk-13.0.2_linux-x64_bin.deb
Linux RPM Package	162.66 MB	 jdk-13.0.2_linux-x64_bin.rpm
Linux Compressed Archive	179.41 MB	 jdk-13.0.2_linux-x64_bin.tar.gz
macOS Installer	173.3 MB	 jdk-13.0.2_osx-x64_bin.dmg
macOS Compressed Archive	173.7 MB	 jdk-13.0.2_osx-x64_bin.tar.gz
Windows x64 Installer	159.83 MB	 jdk-13.0.2_windows-x64_bin.exe
Windows x64 Compressed Archive	178.99 MB	 jdk-13.0.2_windows-x64_bin.zip

Step 3) After downloading the file, start the installation process by clicking on the file.

Step 4) Keep clicking on next and don't alter any default setting.

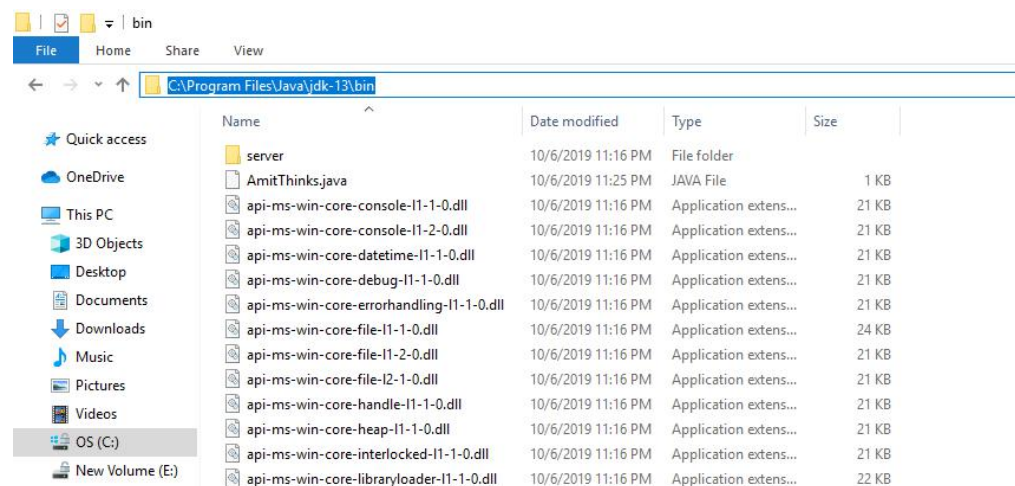
After installation, we need to set the environment variables.

How to set up environment variables?

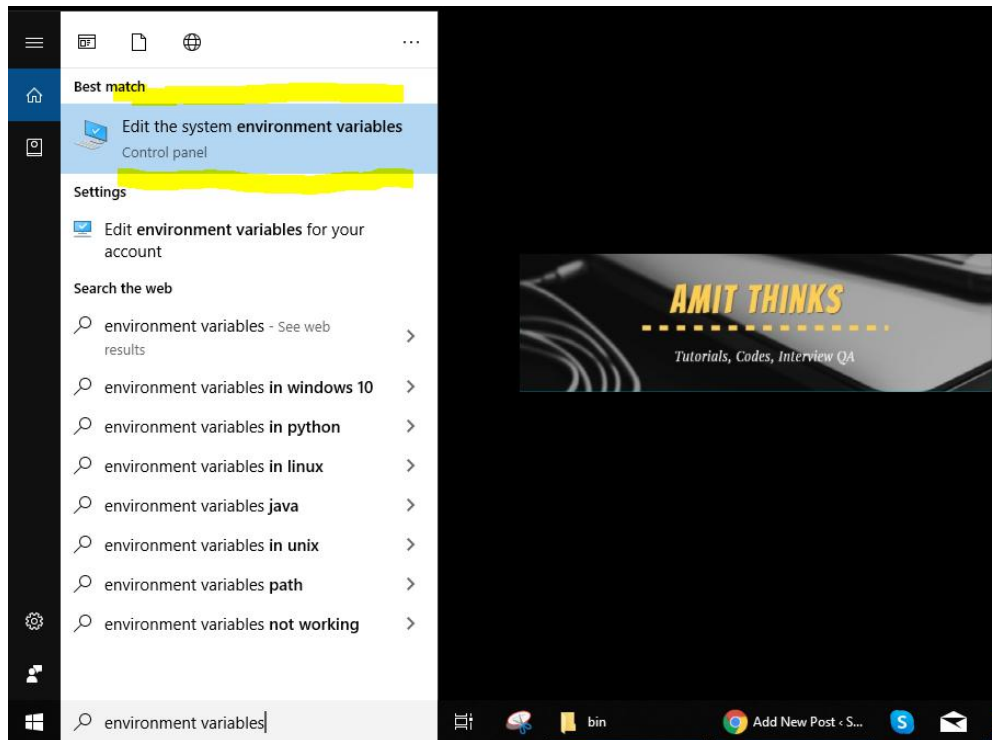
Step 1) At first, copy the path wherein you installed the Java JDK. Let us copy it first. Remember, we need to copy the bin path i.e. the following on our system

-- C:\Program Files\Java\jdk-13\bin

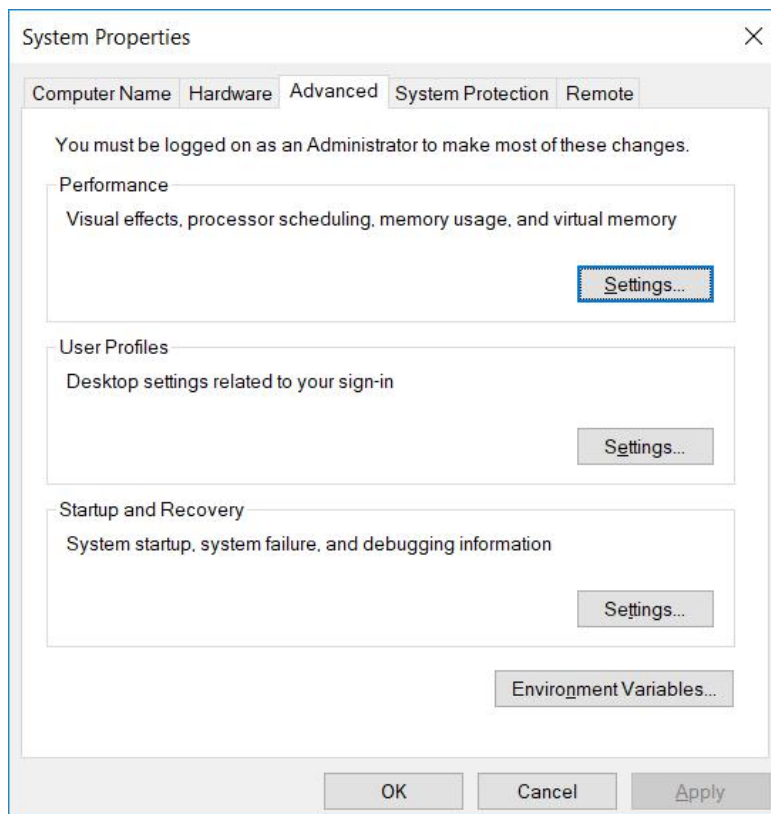
Step 2) Here's the screenshot of the "bin" path, wherein we installed Java 13:



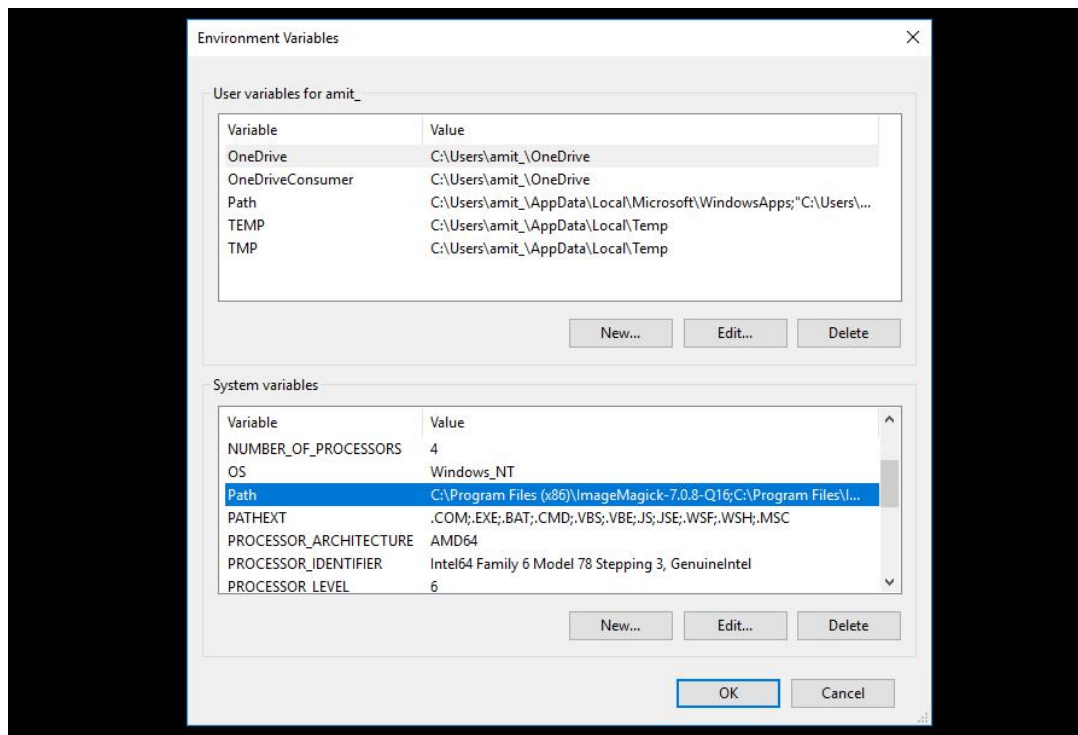
Step 3) type "Environment Variables" or "环境变量" on Start. On typing, the following would be visible:



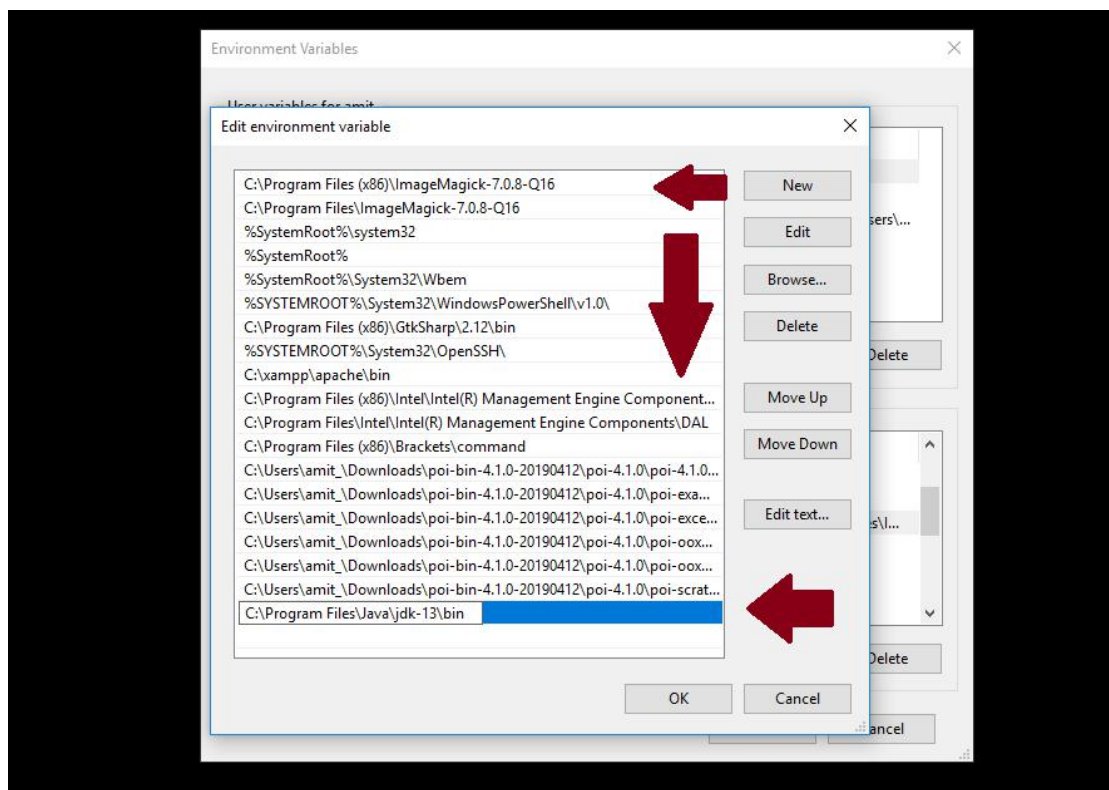
The following dialog box will appear.



Step 4) Click on "Environment Variables", go to system variables, and double click on "Path".



Step 5) On clicking "Path", a new dialog box will open. From there, click "New" and add the Java JDK path "C:\Program Files\Java\jdk-13\bin" as displayed in the below screenshot:



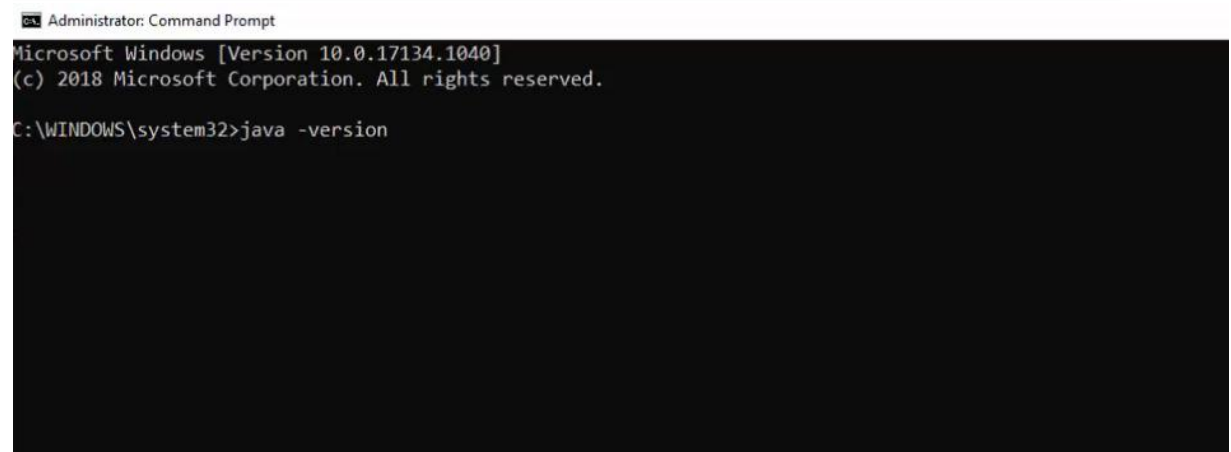
The setup of the Java environment is complete.

Verify Java JDK 13 Installation

We saw how to install Java JDK 13 above. We installed on Windows 10 OS. Now, we can easily verify whether the installation was successfully or not using the following command:

-- java -version

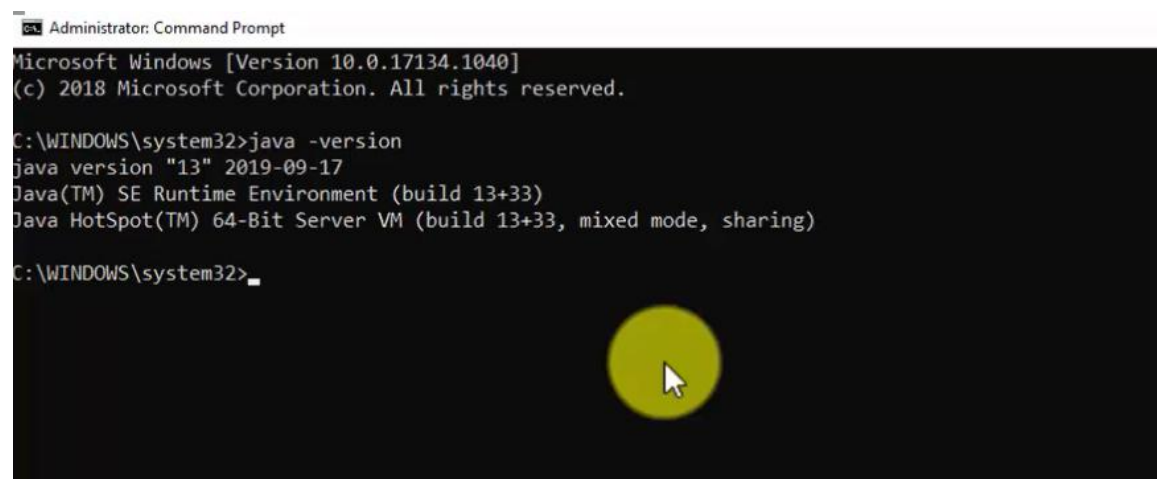
Let us implement the above command on command prompt (cmd) and verify Java installation:



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.17134.1040]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>java -version
```

Therefore, the installation verification is now complete and successful since now we can see the version in the command prompt:



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.17134.1040]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>java -version
java version "13" 2019-09-17
Java(TM) SE Runtime Environment (build 13+33)
Java HotSpot(TM) 64-Bit Server VM (build 13+33, mixed mode, sharing)

C:\WINDOWS\system32>
```

How to run a Java program in Windows 10

To understand how to run a Java program in Windows 10, we will see a simple example of a Hello World program.

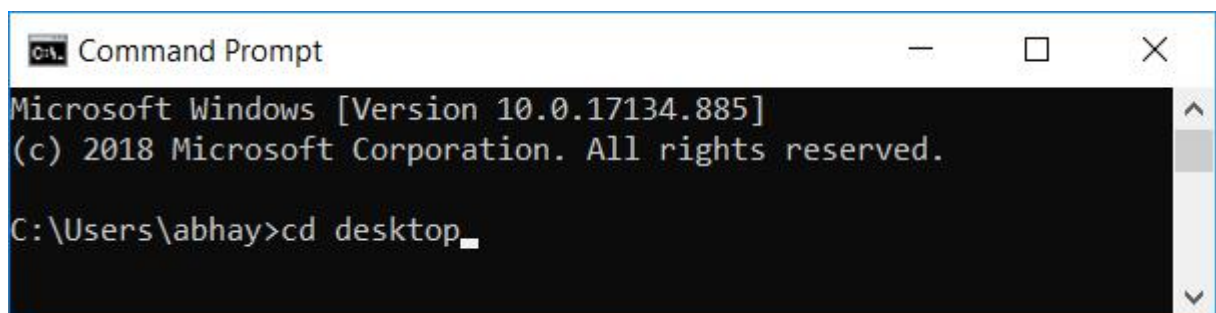
Step 1) Open a text editor and write the java code for the program. The program for HelloWorld.java is given below.

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

Step 2) Save this file with the .java extension. Make sure that the name of the file should be the same as that of the public class. If the file doesn't have any public class, we can save it with any name, but after compilation, a bytecode file will be generated with the name of the class containing the main method.

Step 3) Now, open the command prompt and open the directory in which we have saved our program by using the following command.

-- cd desktop

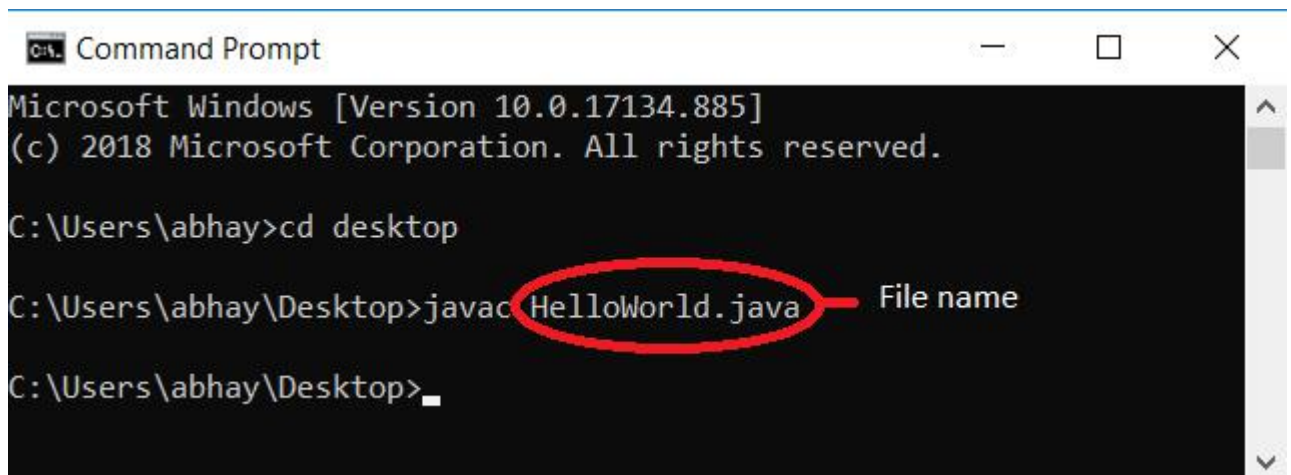
A screenshot of a Windows Command Prompt window. The title bar reads "C:\> Command Prompt". The window content shows the text "Microsoft Windows [Version 10.0.17134.885]" and "(c) 2018 Microsoft Corporation. All rights reserved." followed by the command prompt "C:\Users\abhay>cd desktop_". The cursor is at the end of the command line.

```
C:\> Command Prompt  
Microsoft Windows [Version 10.0.17134.885]  
(c) 2018 Microsoft Corporation. All rights reserved.  
C:\Users\abhay>cd desktop_
```

In this case, the directory is desktop.

Step 4) Now, run the following command to compile the Java program.

-- javac HelloWorld.java



```
Command Prompt
Microsoft Windows [Version 10.0.17134.885]
(c) 2018 Microsoft Corporation. All rights reserved.

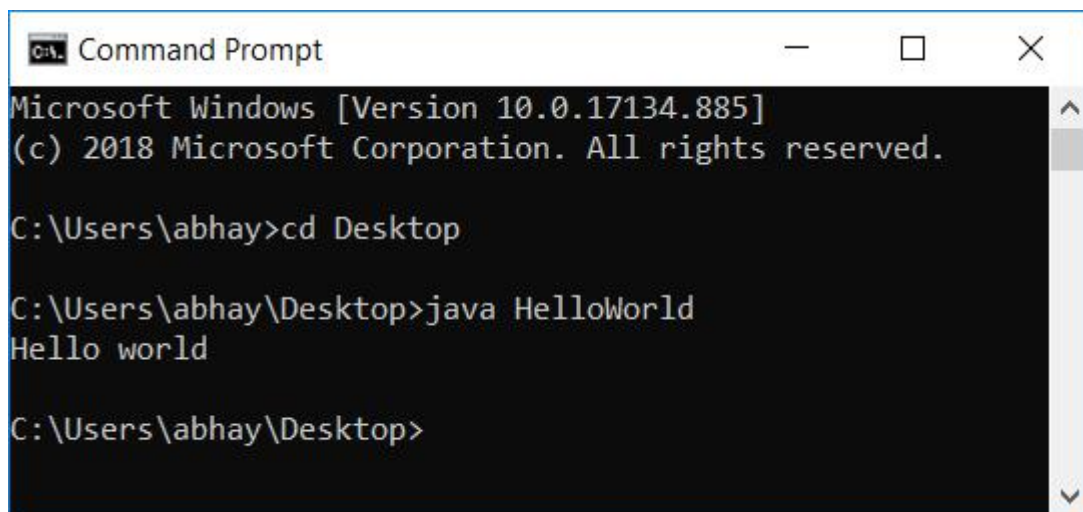
C:\Users\abhay>cd desktop

C:\Users\abhay\Desktop>javac HelloWorld.java
C:\Users\abhay\Desktop>
```

The screenshot shows a Windows Command Prompt window. The title bar says "Command Prompt". The text inside shows the user navigating to the desktop directory and then running the command `javac HelloWorld.java`. The filename `HelloWorld.java` is circled in red, with a red line pointing to the text "File name".

Step 5) After the code is compiled, it generates a bytecode file in the same folder having the .java file with a .class extension. This is the file which is executed by the JRE. To run this file, use the following command.

-- java HelloWorld



```
Command Prompt
Microsoft Windows [Version 10.0.17134.885]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\abhay>cd Desktop

C:\Users\abhay\Desktop>java HelloWorld
Hello world

C:\Users\abhay\Desktop>
```

The screenshot shows the same Windows Command Prompt window. The user has navigated to the desktop directory and run the command `java HelloWorld`. The output of the program, "Hello world", is displayed on the line following the command.

The output of the program will be seen on the command prompt.

This is how we can run a java program in Windows 10.