

CORE JAVA

How to install Java in windows?

Downloading and installing Java is easy and free.

Step 1:

Download latest version of JDK installer from below link:

https://download.oracle.com/java/21/latest/jdk-21_windows-x64_bin.exe

or visit <https://www.oracle.com/java/technologies/downloads/#java21> and choose the version you want to install.

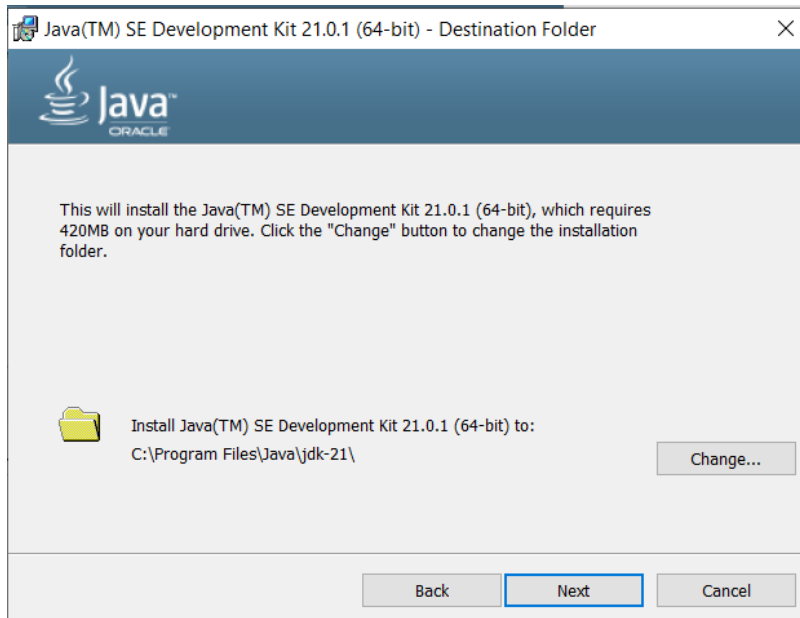
Step 2:

Once download completes, open the installation.

It will look like this-



Click on the next button.



Again click next, I suggest not to change installation directory. But if you change just remember the installation location.



Now it will take some time to install, once installed click close button.

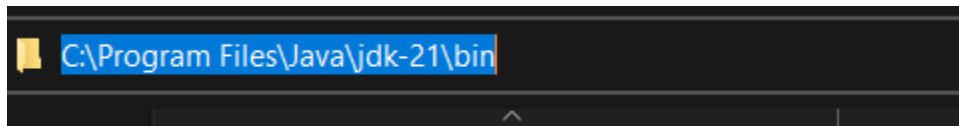
Step 3:

Setup environment variables.

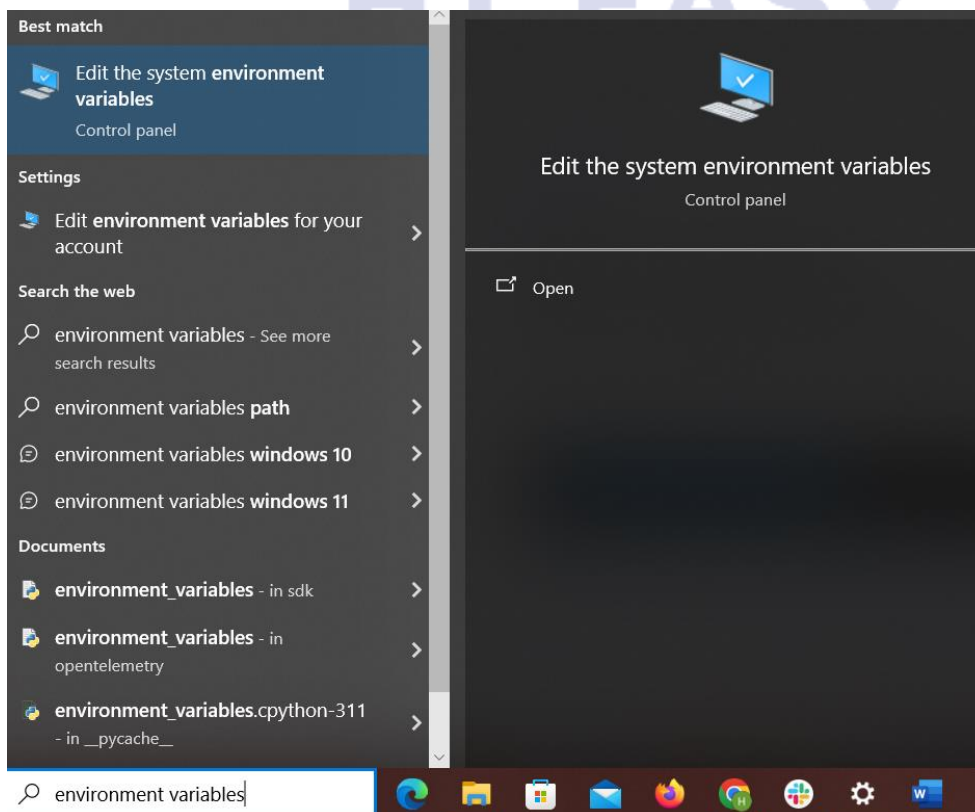
Now go to the installation directory

In C drive -> Program files -> Java -> jdk21 -> bin

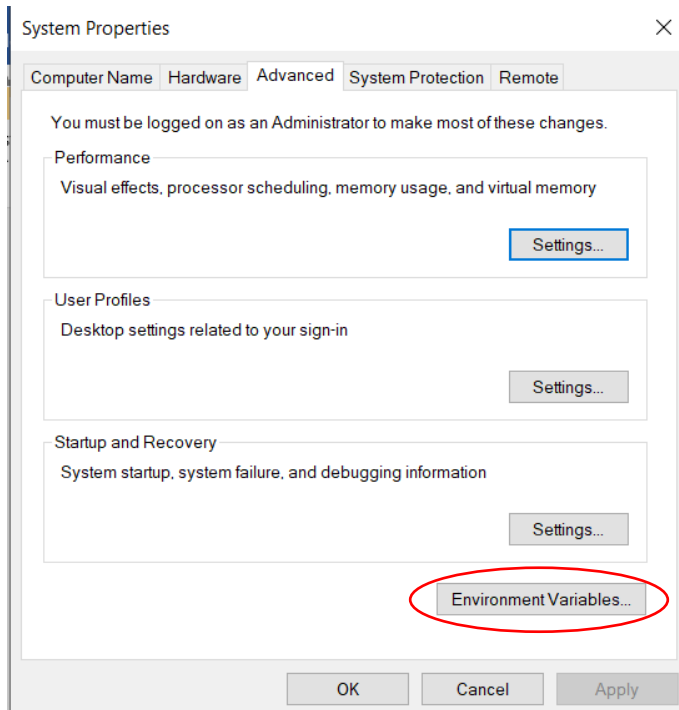
You have to copy this path- (till bin folder)



Now search environment variables in search menu and click on edit the system environment variables.

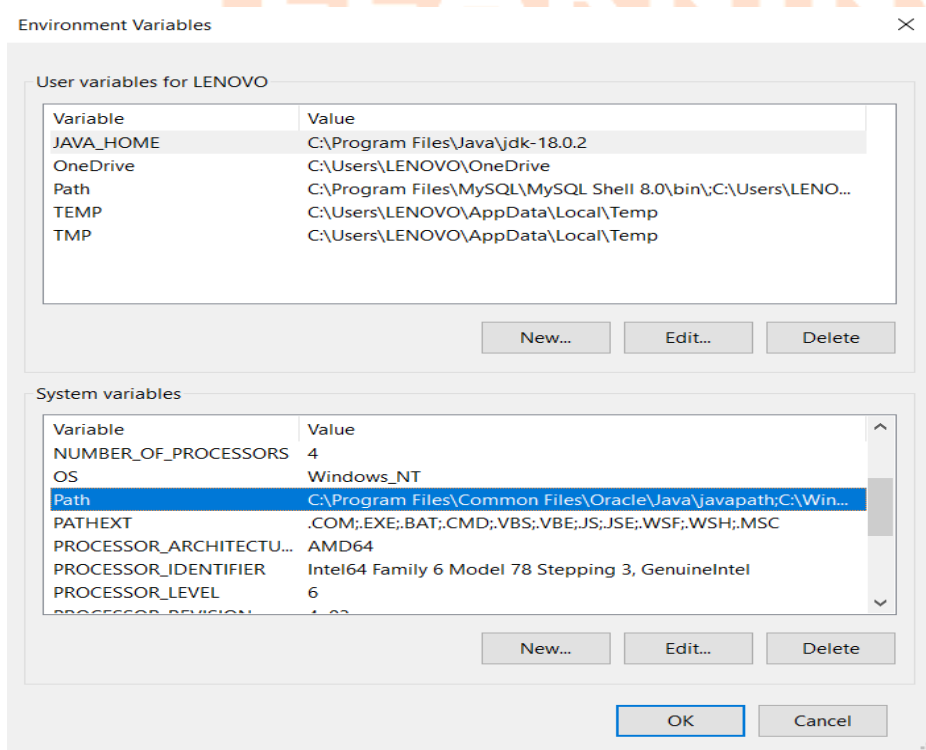


Click on environment variables-

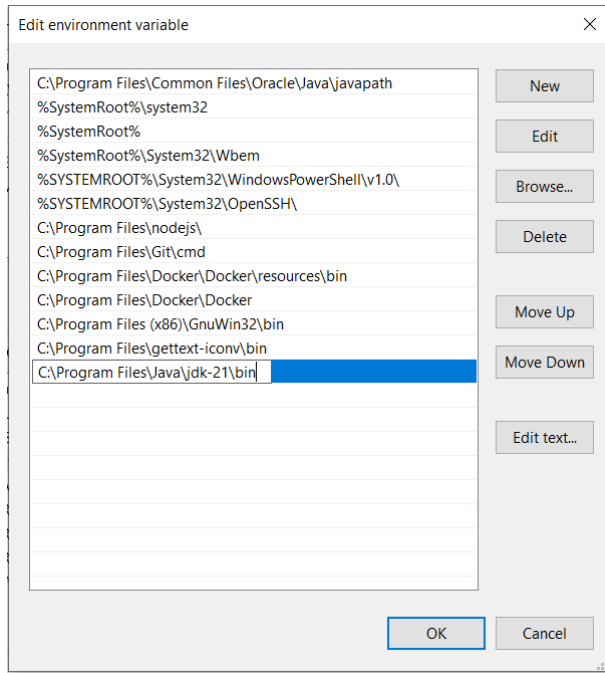


You will see window like below-

In system variables click path



Click edit by selecting path in system variables and add the copied location to the bin folder here-



After adding press ok in all the tabs.

Step 4:

Check Java is installed correctly or not by opening command prompt.

Go to search and type- **cmd**

And run command- `java -version`

```
Command Prompt
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>java -version
java version "21.0.1" 2023-10-17 LTS
Java(TM) SE Runtime Environment (build 21.0.1+12-LTS-29)
Java HotSpot(TM) 64-Bit Server VM (build 21.0.1+12-LTS-29, mixed mode, sharing)
```

Here you can see Java is correctly installed in the system.

Congratulations you have successfully installed Java.

NOTE: If you are not getting above result, and getting [java is not recognized as an internal or external command] that means jdk is not installed properly.

If cmd is already opened when adding environment variables path then close it and reopen cmd and try again.

If it is not installed correctly you can follow the steps again or you can watch our installation video on youtube.

We are going to use notepad and Command Prompt to develop, compile and run our java programs. The reason for this is to get strong grasp on Java Programming.

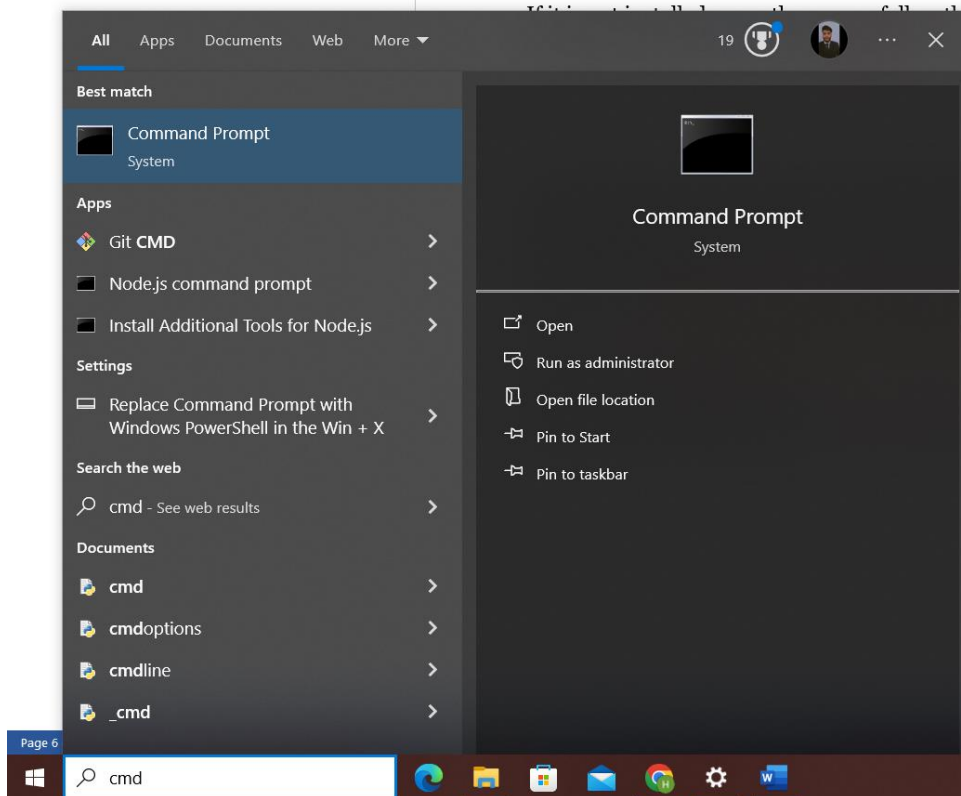
You can use an IDE if you want. But still cmd basics one should definitely know.

What is Command Prompt(CMD)-

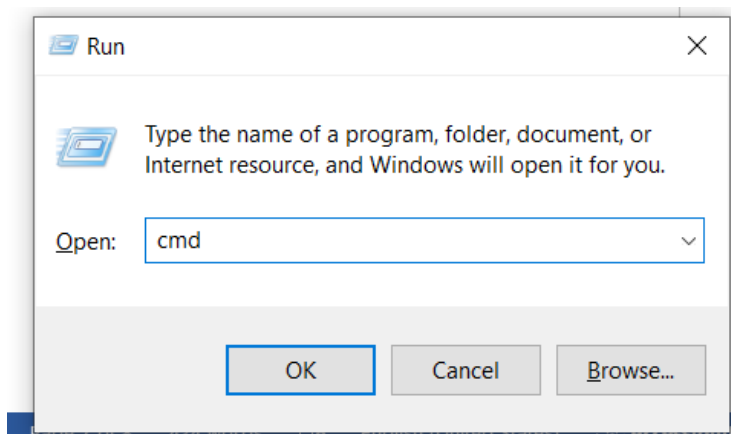
The command prompt, also known as CMD or cmd.exe, is a text-based interface on Windows that allows you to interact with your computer by typing commands. It's essentially a way to give instructions to your computer directly, rather than using the graphical user interface (GUI) with icons and menus.

BASIC CMD Commands-

To open command prompt go to start tab and type cmd.



You can also open it by using windows + r and then type cmd and press enter.



By Default, you will be in C: drive.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>
```

To change the drive you have to simply write the drive name.

Let's go to E: drive-

```
C:\Users\LENOVO>e:
E:\>
```

Let's go back to C drive -

```
E:\>c:
C:\Users\LENOVO>
```

NOTE: The Windows Command Prompt is case insensitive. This means that you can enter commands like dir as DIR, DiR, or dIr, and it will still work. So, the commands are treated as equivalent. Java is case-sensitive so their Computer and computer are treated as different variables.

In computers, case sensitivity defines whether uppercase and lowercase letters are treated as distinct or equivalent.

1.How to list directories-

dir- This command is used to list all the directories in the current directory.

In cmd a folder is known as directory.

Our current directory is-

```
C:\Users\LENOVO>
```

Now let's display all the directories inside our current directory.

```
C:\Users\LENOVO>dir
Volume in drive C has no label.
Volume Serial Number is 728E-26A0

Directory of C:\Users\LENOVO

06/09/2024  10:14 PM    <DIR>          .
06/09/2024  10:14 PM    <DIR>          ..
04/10/2023  11:21 AM    <DIR>          .android
02/09/2024  05:28 PM    <DIR>          .aws
02/09/2024  05:28 PM    <DIR>          .azure
04/01/2023  10:47 PM    <DIR>          .cache
03/07/2024  11:09 PM    <DIR>          .docker
05/19/2023  04:59 PM    <DIR>          .eclipse
04/20/2023  09:07 PM          187 .gitconfig
04/03/2023  11:11 AM    <DIR>          .gradle
05/23/2023  12:24 PM    <DIR>          .idlerc
02/28/2024  11:10 AM          20 .lessht
04/03/2023  11:13 AM    <DIR>          .m2
06/09/2024  10:14 PM    <DIR>          .matplotlib
04/03/2023  10:44 AM    <DIR>          .nbi
06/03/2023  10:28 PM    <DIR>          .p2
01/09/2024  01:01 PM          2,342 .viminfo
07/28/2023  10:29 AM    <DIR>          .vscode
04/01/2023  07:13 AM    <DIR>          3D Objects
05/02/2023  08:17 PM    <DIR>          AndroidStudioProjects
04/01/2023  07:13 AM    <DIR>          Contacts
06/11/2024  11:38 AM    <DIR>          Desktop
05/11/2024  10:51 PM    <DIR>          Documents
06/10/2024  04:58 PM    <DIR>          Downloads
06/03/2023  10:28 PM    <DIR>          eclipse
05/19/2023  05:22 PM    <DIR>          eclipse-workspace
04/01/2023  07:13 AM    <DIR>          Favorites
04/01/2023  07:13 AM    <DIR>          Links
01/18/2024  03:05 PM    <DIR>          Music
04/18/2024  12:58 PM    <DIR>          New folder
10/05/2023  03:42 PM    <DIR>          OneDrive
04/18/2024  11:57 AM    <DIR>          Pictures
12/15/2023  12:36 PM    <DIR>          Postman
04/01/2023  07:13 AM    <DIR>          Saved Games
01/17/2024  04:15 PM    <DIR>          Searches
04/09/2023  09:18 PM    <DIR>          version
06/05/2024  04:04 PM    <DIR>          Videos
               3 File(s)              2,549 bytes
              34 Dir(s)  34,315,534,336 bytes free
```

2. How to change directory-

cd- change directory.

```
C:\Users\LENOVO>cd documents  
C:\Users\LENOVO\Documents>
```

Now we are inside documents directory.

3. How to go to the previous directory-

cd.. – To go back.

```
C:\Users\LENOVO\Documents>cd ..
```

Now let's go inside the desktop directory-

```
C:\Users\LENOVO>cd desktop  
C:\Users\LENOVO\Desktop>
```

4. How to create a directory(folder)-

md/mkdir- make directory

Let's make a folder named "java_practical"

```
C:\Users\LENOVO\Desktop>md java_practical
```

Let's go inside this newly created directory "java_practical"-

```
C:\Users\LENOVO\Desktop>cd java_practical  
C:\Users\LENOVO\Desktop\java_practical>_
```

In the User interface that we basically see, you can see a folder has been created-



5. To go to the root directory-

cd /

```
C:\Users\LENOVO\Desktop>cd /  
C:\>_
```

6. exit

To close the command prompt use “exit” command.

7.To rename a folder-

ren old_name new_name

```
C:\Users\LENOVO\Desktop>ren java_practical "java practical"
```

8. To see the computer's hostname-

hostname

```
C:\Users\LENOVO\Desktop>hostname  
DESKTOP-8E2PQ69
```

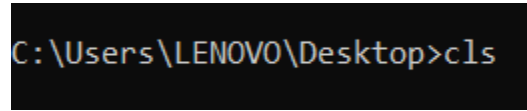
9. To see a list of commands or to get help with cmd commands simply type help.

help

help cd – To know details about a specific command.

10. To clear the screen-

cls



```
C:\Users\LENOVO\Desktop>cls
```

There are many more commands, but we covered all the important ones that are frequently used and are required when we develop and run our java programs.

LEARNING

Join our growing community of tech enthusiasts! Subscribe to our YouTube channel, where we simplify programming languages in the easiest way possible. Gain a deeper understanding with our clear explanations and receive exclusive notes to enhance your learning journey. Don't miss out on valuable insights – hit that subscribe button now and embark on a programming adventure with us!

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