

Installation of IntelliJ IDEA for Windows

Lecture-4

- * IntelliJ IDEA is one of the popular IDEs available for Java. (IDE = Integrated development environment).
- * It is written in Java and developed by JetBrains.
- * It also supports other programming languages like Kotlin, Groovy, Python and JavaScript.
- * JetBrains provide a free and open source Community edition of IntelliJ ~~for~~ with support for Core language like Java & Android dev.
- * Its ultimate version is paid version that includes additional features especially for enterprise frameworks (Spring, etc) and support for advanced web development.

What is IDE?

Integrated Development Environment.

- It is a SW application that provides a comprehensive set of tools to help developers write, test, debug & manage code efficiently.
- It is a combination of tools like Code Editor, Compiler/Interpreter, Debugger with an integrated terminal.

NOTE: - It is not mandatory to have IDE to develop / to write program.

* But IDE provide all the essential tools for development at one place ^{or} in one environment allowing developers to pace of writing and improving code without constantly switching b/w different progms/tools. That's why we prefer IDEs

Some popular IDE's are:

IntelliJ, Eclipse, Visual Studio, PyCharm, Xcode etc.

* And IDEs also provide smart code completion & suggestions, helping developers write code faster & more accurately. IDE ^{warns} us about errors in our code before we run it. It provide Syntax highlighting.

→ Let's install IntelliJ IDEA for windows:-

① Go to JetBrains official website (JetBrains.com) Then click on Developer Tools → IntelliJ IDEA → click on Download & then download the appropriate community version (not ultimate) according to your operating system (windows/mac/Linux)

② Then install (Steps are shown in the video)

Configure IntelliJ IDEA

So we firstly link our installed JDK 21 with IntelliJ IDEA so that they work fine and together. So basically we will tell IntelliJ where is my JDK installed on my computer that you are compile & run your programs.

Step 1. Start/click on IntelliJ IDEA which is installed in our laptop.

Step 2. Then select new project & name it.

⇒ Imp. Customise setting:-

→ go to Customise & you can change the theme.

* now click on All Settings.

* now go to editor → General → click Auto Import → check Add unambiguous imports on the fly and optimize imports on the fly.

* now click on code folding → uncheck file header and imports and 'closures' and Generic Constructor and method parameters.

* click on editor → General → check change font size with Ctrl + mouse wheel pr.

now write our first program:-

→ create new project → Give project name & check whether appropriate JDK version has been linked here.

In language section make sure Java is selected and in Build System make sure IntelliJ is selected. now create project

practia problems

* print your name, and your favorite programming language in separate lines.

```
public class practiaProgram1 {  
    public static void main(String[] args) {  
        System.out.println("I am monika");  
        System.out.println("my fav programming language  
        Java");  
    }  
}
```

* write a program to print Hello, mom!

```
public class Practicaprogm2 {
    public static void main (String[] args) {
        System.out.println ("Hello, mom!");
    }
}
```

* write a program to print your name & your age in separate lines.

```
public class Practicaprogm3 {
    public static void main (String[] args) {
        System.out.println ("My name is Monika");
        System.out.println ("I am 20 years old");
    }
}
```

Installation of VS Code.

* VS Code (Visual Studio) Code. is a free, lightweight and open source code editor developed by Microsoft.

* It is not a full IDE but it can function like an IDE with the help of extensions.

* It supports many languages (C, C++, Java, Python, HTML, CSS). either natively or via extensions.

* It has IDE features like Syntax highlighting & auto completion Code debugging, version control integration.

* It has an integrated terminal, so we can run commands without leaving the editor. It is lightweight & fast & available on cross-platforms (Windows, OS, Linux).

But we can not run Java program in VS Code without any extensions to compile & run Java code we need JDK & VS Code needs to know how to interact with JDK. extensions like Java extension pack provide necessary tools to compile, run & debug Java code from within VS Code.

Extensions represented in VS Code

1. Java extension pack / extension pack for Java by Microsoft
(Debugger for Java, Test runner for Java)
(Language Support for Java)

NOTE: - When we run Java code in VS Code (Special through Java extension) then the terminal displays the full command. It uses to run Java program. This command shows the execution details like the JVM path, options, classpath & class name being executed. Basically this full command, is what the VS Code's internal task system uses to launch the JVM & execute your program.

How to create project in VS Code:

→ open VS Code → click on explorer & then you get here 2 options: open folder and create Java project.