

Course 2 :

Java

Core Java or J2SE (Java Standard edition or desktop application).

Basic Java Programming

OOPs concept

Packages and multi threading

Collection framework

Exception handling

Maven -> build tools.

JDBC -> it use to connect database ie MySQL

JEE -> Java Enterprise Edition : Servlet and JSP

Using **Servlet and JSP** we can create backend technologies. With JDBC we can connect database.

Frontend

Backend

Angular

Java (Servlet / JSP) -> MySQL

Or

.net

React JS

python

Or

Node JS

Vue JS

Before Node JS to create backend side technologies we were depending upon other technologies like java, python, php, .net etc.

After node js using JavaScript we can create backend side technologies. No need to depending upon any other language.

Before node js JavaScript was known as client side scripting language. But after node js JavaScript also known as client side as well as server side scripting language.

MEAN Stack : MongoDB / MySQL Express (it is use to create Rest API), Angular Node JS

MERN Stack : MongoDB / MySQL Express (it is use to create Rest API), React JS Node JS

MEVN Stack : Vue JS.

### Java Full Stack

Python Full Stack

.net Full Stack

**Java** Java is pure object oriented and platform independent programming language.

Java was developed in nov 1995. Initial name of java is **Oak**.

It was belong to **sun micro system**.

Now it is a part of **Oracle**.

Version 1.0, 2.0.....22 Version

Java 8 is minimum version.

Java 11

Java 15

Java IDE

Eclipse IDE

Vs Code

My Eclipse

**object :** any real world entity

like person, employee, customer, bank etc.

**class :** class is blue print of object or template of object.

Syntax of class.

```
class ClassName {
```

```
    variable
```

```
    methods like a functions.
```

```
    Main methods : it is entity of the application.
```

```
}
```

```
class Test {
```

```
    public static void main(String args[]) {
```

```
        System.out.println("Welcome to Java");
```

```
    }
```

```
}
```

tsc demo.ts          converting ts to js

**javac Demo.java**          it is use compile the program.

**Data Types** : Data type is a type of data which tells what type of data it can hold.

**Variable** : variable is name which hold the value.

Syntax to declare the data types

datatype variableName;

datatype variableName=value;

var a=10;                      in JS

let b:number = 20;           in ts

int int=111;                  in java

In Java data types are divided into 2 types.

1. Primitive data types : it is use to store only value
2. Non primitive data type or reference data types: it is use to store value as well as reference of another data types.

Primitive mainly divided into 8 types.

- |          |        |                                  |
|----------|--------|----------------------------------|
| a. byte  | 1 byte | -128 to 127 <b>byte age;</b>     |
| b. short | 2 byte |                                  |
| c. int   | 4 byte | int age                          |
| d. long  | 8 byte | till here without decimal point. |

e. float                      4 byte

f. double                    8 byte

with decimal number

g. char                      2 byte

any single character

h. boolean                  1 bit

true or false.

## Operators :

Arithmetic operator : +, -, \*, /, %

Conditional operator : >, >=, <, <=, ==, !=

Assignment operator : =

Increment : ++, --

## If statement and switch statement

1. simple if
2. if else
3. if else if

switch statement system

```
int label=10;
```

```
switch(label) {
```

```
case 1:block1;
```

```
    break;
```

```
case 2:block2;
```

```
    break;
```

```
case 3:block3;
```

```
    break;
```

```
default : defaultblock;
```

```
    break;
```

```
}
```

