



# Lecture – 6

## Fundamentals of Java



# List of Concepts Involved:

- Introduction to Programming
- Basic features of Java
- Main method
- Classes and Objects (Basics)

# Topics covered Yesterday's Session:

- Software Installation



# Introduction to Programming

Making a set of instructions that instruct a computer how to carry out a task is the process of programming. There are numerous computer programming languages available for use in programming.

## Category of Programming Languages:

- Machine Level Language
- Assembly language
- High-level languages

# Why do we need Programming?

- Not just for academics, but for the real world as well, all programming is done.
- Due to programmes developed by computer programming, you can conduct online banking and purchase your ticket while travelling by train or aeroplane. It's true that your washing machine has a few different kinds of computer programmes. Programming makes it possible for all of these things and many more.



# Introduction to Java

Writing, compiling, and debugging programmes are simple with Java since it is a class-based, object-oriented programming language. It facilitates the development of reusable code and modular programmes, which James Gosling invented in 1995 and eventually sold to Oracle Corporation.

# Basic features of Java

- Simple
- Object-Oriented
- Portable
- Platform independent
- Robust
- Distributed
- Dynamic



# Main method

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



# Classes and Objects (Basics)

Java is an object-oriented programming language.

The classes and objects in Java, along with their characteristics and methods, are the foundation of everything. For instance, an automobile is an object in the actual world. The car contains characteristics like weight and colour, as well as functions like drive and brake.

## Class:

A class is a collection of objects that have similar traits, behaviours, and attributes.

## Object:

An object is an entity with state and behaviour.

# Next Lecture

- Statically typed vs Dynamically types PL
- Variables and data types
- Naming Convention
- Identifiers





▶ THANK YOU ◀