**Java Basics – Classes, Objects, Constructors, Main Method, Function Calling**

**📘 What is a Class?**

* A **class** is like a blueprint or template for creating objects.
* It defines properties (variables) and behaviors (methods) that objects will have.

class Car {

String color;

int speed;

void drive() {

System.out.println("Car is driving");

}

}

**🚗 What is an Object?**

* An **object** is an actual instance of a class.
* It is created using the new keyword.

Car myCar = new Car(); // Object creation

myCar.color = "Red";

myCar.drive(); // Calling a method

**🛠️ What is a Constructor?**

* A **constructor** is a special method used to initialize objects.
* It has the same name as the class.
* It runs automatically when an object is created.

class Car {

String color;

// Constructor

Car(String c) {

color = c;

}

}

Car myCar = new Car("Blue"); // Constructor is called automatically

**🔁 Types of Constructors**

* **Default constructor** – No parameters:

Car() {

System.out.println("Car created");

}

* **Parameterized constructor** – Accepts parameters:

Car(String model) {

this.model = model;

}

**🧠 What is the main() method?**

* The **main() method** is the entry point of a Java program.
* The program starts running from here.

public class MainClass {

public static void main(String[] args) {

// Code starts here

}

}

**📞 Function/Method Calling**

* A **method** is a block of code that performs a task.
* You can call a method using the object (for non-static methods).

class Greet {

void sayHello() {

System.out.println("Hello!");

}

}

public class Main {

public static void main(String[] args) {

Greet g = new Greet(); // Object created

g.sayHello(); // Method call

}

}