## **What is a Class?**

A class is a **blueprint** or **template** for creating objects. It defines the properties (**variables**) and behaviours (**methods**) that an object can have.

### ****Example Analogy:****

* Think of a **class** as a **blueprint** for building a car.
* Using that blueprint, you can create multiple **cars** (objects) with different colors or models.

### ****Syntax of a Class****

### class Car

### {

### // Variables (Properties)

### String brand;

### String color;

### int speed;

### // Method (Behaviour)

### void displayDetails ()

### {

### System.out.println("Brand: " + brand);

### System.out.println("Color: " + color);

### System.out.println("Speed: " + speed + " km/h");

### }

### }

## **What is an Object?**

An **Object** is an **instance** of a class. It is a **real-world entity** with specific values assigned to the properties defined in the class.

### ****Example:****

Using the **Car** class, we can create different cars with different attributes.

**public** **class** Main

{

**public static** **void** main(String[] args)

{

**// Creating Object 1**

Car car1 = **new** Car();

car1.brand = "Toyota";

car1.color = "Red";

car1.speed = 180;

car1.displayDetails();

**// Creating Object 2**

Car car2 = **new** Car();

car2.brand = "Honda";

car2.color = "Blue";

car2.speed = 160;

car2.displayDetails();

}

}