In Java, class attributes (also known as member variables or fields) are variables that are declared within a class but outside any method or constructor, and represent the state or characteristics of an object of that class. On the other hand, variables are used to store values temporarily within a method or constructor.

For example, consider the following class "Car":

public class Car {

private String make; // class attribute

private int year; // class attribute

public void drive(int distance) {

int speed = 55; // variable

int time = distance / speed; // variable

}

}

Here, **make** and **year** are class attributes that represent the characteristics of the Car object and they are accessible throughout the class, whereas **speed** and **time** are variables that are used only within the **drive** method to perform a specific task and they are not accessible outside of the method.

Another difference is that, class attributes have default values assigned to them while variables don't have any default values. For example, if you don't assign any value to class attribute then default value is assigned to it, but if you don't assign any value to a variable then it will give compile time error.

In addition, class attributes are typically used to define the state of an object and are often used in conjunction with methods to define the behavior of that object, while variables are used to temporarily store values within a method or constructor.

1. How should i explain the interviewer what is class in java?

A class in Java is a blueprint for creating objects (a particular data structure), providing initial values for state (member variables or attributes), and implementations of behavior (member functions or methods). In other words, a class defines the properties and methods that a particular type of object can have. Classes are used to define the structure of objects, and are a fundamental concept in object-oriented programming (OOP)

public class Main { // Class Name (Main)

int x = 5;

public static void main(String[] args) {

Main **myObj** = new Main(); // Object Name (myObj)

System.out.println(myObj.x);

}

}

 class attributes are variables within a class

This Java program can be thought of as a blueprint for a building. The "Main" class acts as the blueprint for the building and defines the overall structure.

The "myMethod" method can be thought of as a room within the building. It is a self-contained unit with a specific function, in this case, it has the function of printing a message to the console. The "System.out.println("I just got executed!");" is the furniture that is inside the room.

The "main" method can be thought of as the entrance to the building. It is the point where the program begins executing and where the user or other programs can access the building's functionality. In this case, it calls the "myMethod" method, which is like entering a room and activating its function.

When the program runs, it is like opening the entrance to the building and going inside, activating the function of the "myMethod" room. The output of the program is like seeing the furniture in the room and reading the message on it.