**Day 11\_Java Assignment**

**1. Problem Description:**

What is a constructor?

**2. My Solution:**

* A constructor in Java is a special method that is used to initialize objects. The constructor is called when an object of a class is created. It can be used to set initial values for object attributes.
* A constructor must not have a return type.
* The constructor is involved implicitly.
* The constructor name must be same as the class name.
* A constructor cannot be abstract, static, final, and synchronized.
* we can use access modifiers while declaring a constructor. It controls the object creation. In other words, we can have private, protected, public or default constructor in Java.

**There are two type of constructor in Java:**

**Default constructor:**

* A constructor that has no parameter. It is invoked when an object is created with the new keyword and no arguments are passed. The Java compiler provides a default constructor if you don’t have any constructor in a class.

**Parameterized constructor:**

* A constructor that has one or more parameters. It is invoked when an object is created with the new keyword and arguments are passed to the constructor.

**Examples:**

**Default Constructor:**

**public** **class** Bike {

//Creating default constructor

Bike() {

System.***out***.println("Bike is created");

}

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

//Calling a default constructor

Bike b = **new** Bike();

}

}

**Output:**

Bike is created

**Parameterized constructor:**

**package** constructor;

**public** **class** Car {

**int** modelYear;

String modelName;

//Creating a parameterized constructor

Car (**int** year, String name) {

modelYear = year;

modelName = name;

}

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

//calling a parameterized constructor

Car c = **new** Car(2024, "Swift");

System.***out***.println(c.modelYear + " " + c.modelName);

}

}

**Output:**

2024 Swift