**Constructor Assignments by gaurav diwan**

**Java with DSA and System design**

Q1] what is a constructor?

Ans. A constructor in Java is a special method used to initialize objects. It has the same name as the class and is called when an object is created.

Q2] what is constructor chaining?

Ans. Constructor chaining is calling one constructor from another within the same class, using `this()` & ‘super()’.

Q3] can we call a subclass constructor from a superclass constructor?

Ans. No, a subclass constructor cannot be directly called from a superclass constructor.

Q4] what happens if you keep a return type for a constructor?

Ans. You get a compilation error. Constructors don't have a return type.

Q5] what is no-arg constructor?

Ans. A no-arg constructor is a constructor without any parameters.

Q6] how is the no-arg constructor differ from the default constructor?

Ans. There is no practical difference; the terms "no-arg constructor" and "default constructor" are often used interchangeably. Both refer to a constructor with no parameters.

Q7] when do we need constructor overloading?

Ans. Constructor overloading is needed when you want to create objects with different initial states or when there are multiple ways to initialize an object.

Q8] what is default constructor? Explain with an example.

Ans. A default constructor is automatically provided by Java if no constructor is explicitly defined in a class. It initializes object fields with default values.

Example:

public class Example {

public void display() {

System.out.println("Hello, default constructor!");

}

public static void main(String[] args) {

Example obj = new Example(); // Default constructor is invoked

obj.display();

}

}

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***