**JAVA ASSIGNMENT**

1)What is a static method in Java?

A)🡪static method is a method that belongs to class, not any specific object.

🡪it can be called without creating any object of that class.

**Example:**

class Hello {

static void greet() {

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

}

public static void main(String[] args){

greet(); //method can be called without creating any object

}

}

**Output:**

Hello

2)How is a static method different from an instance method?

A)🡪a static method belongs to class.

🡪 an instance method belongs to object of the class.

🡪to calling static method we use the class name. eg.ClassName.method().

🡪to calling instance method we need to creat an object. eg.obj.method().

3)Can a static method access instance variables directly? Why or why not?

A)🡪a static method can not access instance variables directly .

🡪 Because instance variables belong to an object, but a static method runs

without any object being created.

🡪So, it doesn’t know which object’s data to use.

4)Can a static method call another static method in the same class?

A)🡪Yes , a static method can call another static method in the same class.

🡪Because both belong to the class, not to any object.

Example:

class Example {

static void method1() {

System.out.println("this is method 1");

}

static void method2() {

method1(); // calling another static method

}

Public static void main(String[] args){

method1();

method2();

}

}

1. Can you override a static method in Java? Explain.

A)🡪No, static methods cannot be written.

🡪They belong to the class, not to objects.

🡪A method with the same name in a subclass only hides the parent’s static method.

6) How do you call a static method from another class?

A) 🡪A static method belongs to a class, not an object.

🡪So, you don’t need to create an object to call it.

🡪You can directly call it by using the class name, then a dot (.), and then the method name.

Example:

class Adding {

static void addNumbers() {

System.out.println("Adding two numbers");

}

}

public class Main {

public static void main(String[] args) {

// Calling static method from another class

Adding.addNumbers();

}

}

**Output:**

Adding two numbers

7)Why do we often declare the main method as static in Java?

A)🡪 JVM needs to call main() without creating an object.

🡪Making it static allows the program to start running directly.

8) Can a static method use the this keyword? Why or why not?

A)🡪static method can not use the this keyword.

🡪this refers to the current object, but static methods don’t have an object.

9) Can a static method return a value? Give an example.

A)🡪yes, static method can return value.

Example:

Public class Main{

static int add(int a,int b){

return a+b;

}

public static void main(String[] args){

System.out.println(add(3,6));

}

}

**Output:**

9

10) Can constructors be declared as static? Explain.

A)🡪No, constructors cannot be static.

🡪Because constructors are used to create objects, and static means no object needed.