

## Assignment 7

### 1. Define a class Calculator that has:

Instance variable: int result

Static variable: int operationCount

Instance method: add(int a, int b)

Static method: displayOperationCount()

Call the methods and show the effect of static and instance variables.

### Program:

```
package vanu;

public class Calculator {
    int result;
    static int operationCount;
    public void add(int a,int b) {
        int add=a+b;
        operationCount++;
        System.out.println(add);
    }
    static void displayOperationCount() {
        System.out.println("Number of Operations to be performed: "+operationCount);
    }
    public static void main(String[] args) {
        Calculator obj=new Calculator();
        obj.add(2,8);
        obj.displayOperationCount();
    }
}
```

**2. Create a class BankAccount with private balance and methods to deposit and getBalance.**

Try accessing the balance directly from another class and note the error.

**Program:**

```
package vanu;

public class BankAccount {
    private int balance=0;
    void deposit() {
        balance=balance+100;
        System.out.println("Deposited");
    }
    void getBalance() {
        System.out.println("Balance: "+balance);
    }
    class bank{
        public static void main(String[] args) {
            BankAccount obj=new BankAccount();
            obj.deposit();
            obj.getBalance();
        }
    }
}
```

### 3. Create a class Student with roll number and name. Initialize it using a

parameterized constructor. Add another constructor to initialize with roll number only and name as &quot;Unknown&quot;. Print both using a display method.

Objective: Use overloaded constructors with default values.

#### Program:

```
public class Student {  
    int rollnumber;  
    String name;  
    Student(int rollnumber, String name){  
        this.rollnumber=rollnumber;  
        this.name=name;  
    }  
    Student(int rollnumber){  
        this.rollnumber=rollnumber;  
        this.name="Unknown";  
    }  
    void display() {  
        System.out.println(rollnumber);  
        System.out.println(name);  
    }  
    public static void main(String[] args) {  
        Student obj=new Student(116,"vanmathi");  
        System.out.println("Student 1: ");  
        obj.display();  
        Student obj1=new Student(116);  
        System.out.println("Student 2: ");  
        obj1.display();  
    }  
}
```