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.

package Assignment7;

import java.util.\*;

public class ClassCalculator {

int result;//instance variable

static int *operationCount*=0; //static variable

void add(int a,int b) { // instance method

result=a+b;

*operationCount*++;

System.***out***.println(result);

}

static void displayoperationCount() { // static method

System.***out***.println(*operationCount*);

}

public static void main(String[] args) {

ClassCalculator obj = new ClassCalculator();

obj.add(10,20 ); //instance method so create object to access the function

ClassCalculator obj2=new ClassCalculator();

obj2.add(30, 50);

ClassCalculator.*displayoperationCount*();// static method so dont create the object

}

}

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

getBalance.

package Assignment7;

import java.util.\*;

class bank{

private int balance=10000;

void deposit(int amount) {

balance=balance+amount;

System.***out***.println(amount);

}

void getbalance() {

System.***out***.println(balance);

}

}

public class BankAccount {

public static void main(String[] args) {

bank obj= new bank();

obj.deposit(10000);

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.

package Assignment7;

import java.util.\*;

class Student{

int rollnumber;

String Name;

Student(int rollnumber,String Name){ //overloading

this.rollnumber=rollnumber; //constructor access keyword "this."

this.Name=Name;

}

Student(int rollnumber){ // overloading

this.rollnumber=rollnumber; //constructor access keyword "this."

this.Name="unknown";

}

void display() {

System.***out***.println("Roll Number: " + rollnumber);

System.***out***.println("Name: "+Name);

}

}

public class ClassStudent {

public static void main(String[] args) {

Student obj1=new Student(29,"Saranya");

Student obj =new Student(14);

obj.display();

obj1.display();

}

}