Date: 11/4/22

Lab Program 5 (Part A)

Write a Java program to display the moth of a year. Month of the year should be held in an array.

```
class Lab5
{
  public static void main (String [] args)
  {
    String months[];
    months = new String[13];
    months[0] = null;
    months [1] = "January";
    months [2] = "February";
    months [3] = "March";
    months[4] = "April";
    months [5] = "May";
     months [6] = "June";
    months [7] = "July";
     months [8] = "Augest";
     months [9] = "September";
    months [10] = "October";
     months [11] = "November";
     months [12] = "December";
    if (args.length ==0)
{
  System.out.println ("enter number between 0 to 12")
    System.exit (0);
}
```

```
int m = Integer.parseInt (args[0]);
System.out.println (months[m]);
}
```

Output

```
e:\j2k1.4.1\bin> Javac Lab5.java
e:\j2k1.4.1\bin> Lab5.Java 5
May
```

Date : 12/4/22

* Lab Program 6 (Part A)

Write a program with class variable that is available for all instances of the class. Use static variable declaration.

```
class Lab6
{
    Static int count = 0;
    Public void increement ()
    {
        count ++;
    }
    public static void main (String args[])
    {
        Lab6 obj1 = new Lab6();
        Lab6 obj2 = new Lab6();
        obj1.increement ();
        obj2.increement();
    System.out.println ("obj1 count is = "+obj1.count);
```

```
System.out.println("obj2 count is = "+obj2.count);
    }
}
```

Output

```
c:\j2sdk1.4.1\bin> javae lab6.java
c:\j2sdk1.4.01\bin> Java Lab6

obj1 count is = 2
obj2 count is = 2
```

Date: 21/4/22

Lab Program 7

Write a Program to perform mathematical operations Create a class called addSub with methods to add and subtract. Create another class, class MulDiv that extends from Addsub class to use the member data of the super class. MulDiv should have member methods to multiply and divide A main function should accesss the methods and perform the mathematical operations.

```
class addsub
{
    int a = 20, b = 10;
    Public void display()
{
    System.out.println("Number 1" + a);
    System.out.println("Number 2" + b);
}
```

```
void add()
{
System.out.println("Sum\n"+(a+b));
}
void sub()
{
System.out.println("Difference:\n"+(a-b));
}
}
class muldiv extends addsub
{
void mul()
{
System.out.println("Product\n"+(a*b));
}
void div()
{
System.out.println("division is\n"+(a/b));
}
}
Public class Lab7
{
public static void main(String args[])
{/* addsub obj1 = new addsub();
obj1.display();
obj1.add();
obj1.sub();*/
muldiv obj2 = new muldiv();
obj2.display();
obj2.add();
obj2.sub();
obj2.mul();
obj2.div();
}
}
```

//comment

Output

```
Number 1 : 20
Number 2 : 10
 sum :
 30
Differemce:
 10
Product:
 200
division :
2
```

Lab Program 8

Write a program to handle Arithmetic Exception and 'finally' Method to display a message to the user.

```
class Lab8
{
  public static void main (String args[])
    {
      int a, b;
      float r;
      a = 7
       b = 0
      try{
        r = a/b;
        System.out.println ("Result is" + r);
       }
     catch (ArithmeticException e)
     {
     System.out.println ("B is zero");
     }
   finally
  {
System.out.println ("finally. exception occured or not. I
        executed always.");
  }
}
```

Output

```
B is zero
Faimally : exception occurs or not,
i execute always.
```

Lab 9 Write a java program to create a student class with following attributes: Enrollment_id: Name, Mark of sub1, Mark of sub2, sub3, total marks. Total of the three marks must be calculated only when the student passes in all three subs. The pass mark for each subject is 50. If a candidate fails in anyone of the subjects his total mark must be declared as zero.

```
import java.util.Scanner;
public class Student {
    String name;
    int m1, m2, m3, total;
  public void accept() {
    Scanner in = new Scanner(System.in);
  System.out.print("Enter name:");
    name = in.nextLine();
  System.out.println("Enter Sub1 marks:");
      m1 = in.nextInt();
  System.out.println("Enter Sub2 marks:");
      m2 = in.nextInt();
  System.out.println("Enter sub3 marks:");
      m3 = in.nextInt();
  }
  public void compute() {
    if (m1>49 && m2>49 && m3>49)
    total = (m1+m2+m3);
    else
      total = 0;
  } public void display() {
```

```
System.out.println("Name: "+name);
System.out.println("Sub1 marks: "+m1);
System.out.println("Sub2 marks: "+m2);
System.out.println("Sub3 marks: "+m3);
System.out.println("Total Marks: "+total);
}

public static void main(String args[]){
    Student obj = new Student();
    obj.accept();
    obj.compute();
    obj.display();
  }
}
```

OUTPUT

```
Enter the name of the student:
Akshyamkha
Enter sub1 marks:
80
Enter sub2 marks:
90
Enter sub3 marks:
90
name: Akshyamkha
sub1 marks : 80
sub2 marks : 90
sub3 marks: 90
TOTAL marks: 260
```

Lab program 10

Define a class called first class year with the attributes staff name, Student name and marks and marks and define a suitable constructor. Also write a method called best student() which process a first-year object and return the student with the highest total marks.

```
import java.util.Scanner;
public class firstyear
{
  String staffname;
  int TOTAL_STUDENTS = 3;
  String name[] = new String[TOTAL_STUDENTS];
 int marks[] = new int[TOTAL_STUDENTS];

  firstyear()
{
  staffname = " ";
  TOTAL_STUDENTS=0;
 }
 Public void accept()
 {
  Scanner in = new Scanner(System.in);
  System.out.print("Enter Staff name");
      staffname = in.nextLine();
     for (int i=0; i<name.length; i++)
    {
   System.out.print("Enter name of student "+(i+1)+":")
      name[i] = in.nextLine();
 System.out.print("Enter marks of student "+(i+1)+":")
```

```
            marks[i] = in.nextInt();
            in.nextLine();
        }
    }
    public void BestStudent()
    {
        int hIdx = 0;
        for (int i = 1; i<marks.length; i++)
        {
            if (marks[i] > marks[hIdx])
                hIdx = i;
        }
        System.out.println("Staff Name = "+ staffname);
        System.out.println("Highest Marks = "+ marks[hIdx]);
        System.out.println("Name of student = "+ name[hIdx]);
    }
    public static void main(String args[])
    {
        firstyear f = new firstyear();
        f.accept();
        f.BestStudent();
    }
}
```