

## ASSIGNMENT - 3

HEMAVARSHINI D

1) Write program to find whether a given year is a leap year or not.

```
public class LeapYearOrNot
{
    public static void main(String[] args)
    {
        int year;

        System.out.println("Enter an Year :: ");
        Scanner sc = new Scanner(System.in);
        year = sc.nextInt();

        if (((year % 4 == 0) && (year % 100 != 0)) || (year % 400 == 0))
            System.out.println("Specified year is a leap year");
        else
            System.out.println("Specified year is not a leap year");
    }
}
```

2) program to read roll no, name and marks of three subjects and calculate the total, percentage and division

Test Data :

Input the Roll Number of the student :784

Input the Name of the Student :James

Input the marks of Physics, Chemistry and Computer Application : 70 80 90

Expected Output :

Roll No : 784

Name of Student : James

Marks in Physics : 70

Marks in Chemistry : 80

**Marks in Computer Application : 90**

**Total Marks = 240**

**Percentage = 80.00**

**Division = First**

```
import java.util.Scanner;

public class GivenData1 {

    public static void main(String[] args)
    {

        Scanner input = new Scanner(System.in);

        System.out.print("Roll No of Student :");

        int rollNo = input.nextInt();

        System.out.print("Name of The Student :");

        String studentName = input.next();

        System.out.print("marks of physics ,chemistry and computer Appplication :");

        int physicsMarks = input.nextInt();

        int chemistryMarks = input.nextInt();

        int computerAppMarks = input.nextInt();


        double totalMarks = physicsMarks + chemistryMarks + computerAppMarks;

        double percentage = (totalMarks / 300) * 100;

        System.out.println("ROLL no : " + rollNo);

        System.out.println("Name Of Student : " + studentName);

        System.out.println("Marks in Physics : " + physicsMarks);

        System.out.println("Marks in chemistry : " + chemistryMarks);

        System.out.println("Marks in Computer Application: " + computerAppMarks);

        System.out.println("Total Marks : " + totalMarks);

        System.out.println("Percentage : " + percentage);

        if (percentage >= 90) {

            System.out.println("Division = First");

        }

        else if (percentage >= 60) {

            System.out.println("Division = Second");

        }

    }

}
```

```

    }

    else if (percentage >= 40) {
        System.out.println("Division = Third ");
    }

    else
        System.out.println(" you are Falied !!");
    }
}

```

### 3) program to read temperature in centigrade and display a suitable message

```

import java.util.Scanner;

public class CentigradeCheck
{
    public static void main(String[] args)
    {
        Scanner sc= new Scanner(System.in);
        float temp;
        System.out.println("Input the temperature in centigrade:");
        temp = sc.nextFloat();
        {
            if (temp <= 0.0)
                System.out.println("Freezing weather");
            else if (temp >=0 && temp <10)
                System.out.println("Very Cold weather");
            else if (temp >=10 && temp <20)
                System.out.println("Cold weather");
            else if (temp >=20 && temp <30)
                System.out.println("Normal in Temp");
            else if(temp >= 30 && temp <40)
                System.out.println("Its Hot ");
            else
                System.out.println("Its Very Hot");
        }
    }
}

```

```
}
```

4) program to check whether a character is an alphabet, digit or special character.

```
import java.util.Scanner;

public class AlphabetDigitSpecial
{
    public static void main(String[] args)
    {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter any character : ");
        char ch = scanner.next().charAt(0);

        if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {

            System.out.println(ch + " is A ALPHABET.");
        }
        else if(ch >= '0' && ch <= '9') {

            System.out.println(ch + " is A DIGIT.");
        }
        else {

            System.out.println(ch + " is A SPECIAL CHARACTER.");
        }
    }
}
```

5) Write a program in to accept a grade and declare the equivalent description

Grade	Description
E	Excellent

<b>V</b>	<b>Very Good</b>
<b>G</b>	<b>Good</b>
<b>A</b>	<b>Average</b>
<b>F</b>	<b>Fail</b>

**Test Data :**

**Input the grade :A**

**Expected Output :**

**You have chosen : Average**

```
import java.util.Scanner;

public class GradeDescription
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        System.out.println(" Select a Grade (A,G,V,E,F)to know the description :");

        char grade = sc.next().charAt(0);

        switch (grade) {
            case 'A':
                System.out.println("Average");
                break;
            case 'G':
                System.out.println("Good");
                break;
            case 'V':
                System.out.println(" Very Good");
```

```

        break;

        case 'E':
            System.out.println("EXcellent ");

            break;

        case 'F':

            System.out.println("Fail");

            break;

        default:

            System.out.println("Inavlid Input");

    }

}
}

```

**6) Write a program to read any day number in integer and display day name in the word.**

```

import java.util.Scanner;

public class DaysOfWeeks
{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int dayNum;
        System.out.print("Enter a day number (1-7): ");
        dayNum =sc.nextInt();
        switch(dayNum) {
            case 1:
                System.out.println("Monday");
                break;
            case 2:
                System.out.println("Tuesday");
                break;
            case 3:

```

```

        System.out.println("Wednesday");
        break;
    case 4:
        System.out.println("Thursday");
        break;
    case 5:
        System.out.println("Friday");
        break;
    case 6:
        System.out.println("Saturday");
        break;
    case 7:
        System.out.println("Sunday");
        break;
    default:
        System.out.println("Invalid day number.");
        break;
    }
}
}

```

## 7) Read integer value and display the number of days for this month.

```

import java.util.Scanner;

public class MonthOfYear
{
    public static void main(String[] args)
    {
        Scanner in = new Scanner(System.in);
        System.out.print("Enter month's number:(1 - 12) ");
        int monthNumber;
        monthNumber = in.nextInt();
        switch (monthNumber) {
            case 1:
                System.out.println("January");

```

```
        break;
    case 2:
        System.out.println("February");
        break;
    case 3:
        System.out.println("March");
        break;
    case 4:
        System.out.println("April");
        break;
    case 5:
        System.out.println("May");
        break;
    case 6:
        System.out.println("June");
        break;
    case 7:
        System.out.println("July");
        break;
    case 8:
        System.out.println("August");
        break;
    case 9:
        System.out.println("September");
        break;
    case 10:
        System.out.println("October");
        break;
    case 11:
        System.out.println("November");
        break;
    case 12:
        System.out.println("December");
```



```
        break;
    default:
        System.out.println("Invalid month.");
        break;
    }
}
}
```