**\*Shweta Powar\***

**\*Assignment 3\***

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

**Program:**

import java.util.Scanner;

public class LeapYear {

public static void main(String[] args) {

int year;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Year :");

year=sc.nextInt();

if((year % 400 == 0) || (year %4==0)&& (year %100 !=0)) {

System.out.println("The given Year is leap Year:"+year);

}

else {

System.out.println("The given Year is not leap Year:"+year);

} } }

**Output:**

Enter the year :

2001

The given Year is not leap year:2001

Enter the year :

1996

The given Year is leap year:1996

**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**

**Program:**

import java.util.Scanner;

public class StudentMarks {

public static void main(String[] args) {

String name;

int rno, phy, chem, com, total;

float per;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Roll Number of the student: ");

rno=sc.nextInt();

System.out.println("Enter the Name of the student:");

name= sc.nextLine();

System.out.println("Enter the Marks in Physics: ");

phy=sc.nextInt();

System.out.println("Enter the Marks in Chemistry: ");

chem=sc.nextInt();

System.out.println("Enter the Marks in Computer Application :");

com=sc.nextInt();

System.out.println("Roll No: "+rno);

System.out.println("Name of the Student: "+name);

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

System.out.println("Marks in Chemistry: "+chem);

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

total=phy+chem+com;

System.out.println("Total Marks="+total);

per=total /3;

System.out.println("Percentage="+per);

if(per>=80) {

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

} } }

**Output:**

Enter the Roll Number of the student:

784

Enter the Name of the student:

James

Enter the Marks in Physics:

70

Enter the Marks in Chemistry:

80

Enter the Marks in Computer Application:

90

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

**3) Program to read temperature in centigrade and display a suitable message .**

**Program:**

import java.util.Scanner;

public class TemperatureMessage {

public static void main(String[] args) {

int temp;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the temperature in celsius: ");

temp=sc.nextInt();

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 temperature ");

}

else if((temp>=30)&&(temp<=40)) {

System.out.println(" Its Hot ");

}

else {

System.out.println(" Its Sunny");

} } }

**Output:**

Enter the temperature in celsius:

35

Its Hot

Enter the temperature in celsius:

15

cold weather

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

**Program:**

import java.util.Scanner;

public class CharCheck {

public static void main(String[] args) {

char input;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Input: ");

input=sc.next().charAt(0);

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

System.out.println(" The input is alphabets ");

}

else if(input>='0') {

System.out.println("The Input is number");

}

else

System.out.println("The Input is special characters");

} }

**Output:**

Enter the Input:

@

The Input is special characters

Enter the Input:

S

The Input is alphabets

Enter the Input:

12

The Input is number

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

|  |  |
| --- | --- |
| **Grade** | **Description** |
| E | Excellent |
| V | Very Good |
| G | Good |
| A | Average |
| F | Fail |

**Test Data :  
Input the grade :A  
*Expected Output* :  
You have chosen : Average**

**Program:**

import java.util.Scanner;

public class Grade {

public static void main(String[] args) {

char input;

Scanner sc=new Scanner(System.in);

System.out.println("Input the grade:");

input=sc.next().charAt(0);

switch(input) {

case 'E': System.out.println("You have chosen: Excellant");

break;

case 'V': System.out.println("You have chosen: Very Good");

break;

case 'G': System.out.println("You have chosen: Good");

break;

case 'A': System.out.println("You have chosen: Average");

break;

case 'F': System.out.println("You have chosen: Fail");

break;

default: System.out.println("Enter the Valid Input");

break;

}} }

**Output:**

Input the grade:

A

You have chosen: Average

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

**Program:**

import java.util.Scanner;

public class DayName {

public static void main(String[] args) {

int input;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Day No:");

input=sc.nextInt();

switch(input) {

case 1: System.out.println("Sunday");

break;

case 2: System.out.println("Monday");

break;

case 3: System.out.println("Tuesday");

break;

case 4: System.out.println("Wednesday ");

break;

case 5: System.out.println("Thursday ");

break;

case 6: System.out.println("Friday");

break;

case 7: System.out.println("Saturday");

break;

default: System.out.println("Invalid Input");

break;

} } }

**Output:**

Enter the Day No:

1

Sunday

Enter the day no:

3

Tuesday

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

**Program:**

import java.util.Scanner;

public class MonthDays {

public static void main(String[] args) {

int mno , year;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Month number: ");

mno=obj.nextInt();

if((mno==1)||(mno==3)||(mno==5)||(mno==7)||(mno==9)||(mno==11)) {

System.out.println("This Month has 31 days ");

}

else if((mno==4)||(mno==6)||(mno==8)||(mono==10)||(mno==12)) {

System.out.println("This Month has 30 days ");

}

else if(mno==2) {

System.out.println("Enter the Year: ");

year=sc.nextInt();

if((year % 400 == 0) || (year %4==0)&& (year %100 !=0)){

System.out.println("This month has 29 days");

}

else {

System.out.println("This month has 28 days");

} } } }

**Output:**

Enter the Month number:

9

This Month has 31

Enter the Month number:

6

This Month has 30 days