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

```
package Assignment3;
import java.util.Scanner;

public class Leap_Year {

 public static void main(String[] args) {
  // TODO Auto-generated method stub
  int year;

  Scanner scanner=new Scanner(System.in);   //creating scanner to take input from user
  System.out.println("Enter a year");
        year=scanner.nextInt();                 //nextInt is used to scanner integer

  if(year %4==0)   //condition for leap year
        {
         System.out.println("It is leap year"); //true
        }
  else
  {
   System.out.println("It is not leap year"); //else condition
  }
 }
}
```

2.Program to read roll no, name and marks of three subjects and calculate the total, percentage and divisi
on

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

--->

```
package Assignment3;
import java.util.Scanner;
public class CalculatePercentage {

 public static void main(String[] args) {
  // TODO Auto-generated method stub
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter roll no.: ");
        int rollNo = scanner.nextInt();
        System.out.println("Enter Student Name: ");
        String studName = scanner.next();
        System.out.println("Marks of English: ");
        int englishMarks = scanner.nextInt();
        System.out.println("Marks of Maths: ");
```

```
        int mathsMarks = scanner.nextInt();
        System.out.println("Marks of Science: ");
        int scienceMarks = scanner.nextInt();

        double totalMarks = englishMarks + mathsMarks + scienceMarks;  //calculate total
        double percentage=(totalMarks/300*100);     //to calculate percentage

        System.out.println("Roll No.: "+rollNo);
        System.out.println("Name: "+studName);
        System.out.println("English: "+englishMarks);
        System.out.println("Maths: "+mathsMarks);
        System.out.println("Science: "+scienceMarks);
        System.out.println("Total Marks: "+totalMarks);    //printing total marks
        System.out.println("Percenage: "+percentage);

        if(percentage>=80)
        {
         System.out.println("Frist Class");
        }
        else if(percentage>=60)
        {
         System.out.println("Second Class");
        }
        else if(percentage>=40)
        {
         System.out.println("Thrid Class");
        }
        else
        {
         System.out.println("Failed");
        }
 }
}
```

3.program to read temperature in centigrade and display a suitable message
--->

```
import java.util.Scanner;

public class Temperature {

 public static void main(String[] args) {
  // TODO Auto-generated method stub
     Scanner scanner=new Scanner(System.in);
     System.out.println("Enter the Temperature: ");
     int temp=scanner.nextInt();
     if(temp<=0)
     {
      System.out.println("Freezing");
     }
     else if(temp>=1&&temp<=20)
     {
      System.out.println("Cold");
     }
     else if(temp>=21&&temp<=30)
     {
```

```
      System.out.println("Normal");
     }
     else if(temp>=31&&temp<=40)
     {
      System.out.println("Hot");
     }
     else if(temp>40)
     {
      System.out.println("Very Hot");
     }
 }

}
```

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

```
package Assignment3;
import java.util.Scanner;
public class CheckCharacter {

 public static void main(String[] args) {
  // TODO Auto-generated method stub
        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<='B')
        {
         System.out.println("It is a Alphabet");
        }
        else if(ch>='0'&&ch<='9')
        {
         System.out.println("It is a Digit");
        }
        else
        {
         System.out.println("It is a Special Charater");
        }
 }
}
```

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
--->

```
package Assignment3;
import java.util.Scanner;
public class Grades {
```

```
 public static void main(String[] args) {
  // TODO Auto-generated method stub
    Scanner scanner = new Scanner(System.in);
    System.out.println("Enter the Grades");
    char grades = scanner.next().charAt(0);

    switch(grades)
    {
    case ’a’,’A’:
     System.out.println("Average");
    break;
    case ’g’,’G’:
     System.out.println("Good");
    break;
    case ’e’,’E’:
     System.out.println("Excellent");
    break;
    case ’v’,’V’:
     System.out.println("Very good");
    break;
    case ’f’,’F’:
     System.out.println("Fail");
    break;

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

    }
 }
}
```

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

```
package Assignment3;

import java.util.Scanner;

public class DayName {

 public static void main(String[] args) {
  // TODO Auto-generated method stub

  Scanner scanner = new Scanner(System.in);
     System.out.println("Enter the Integer");
     int Day = scanner.nextInt();

     switch(Day)
     {
     case 1:
      System.out.println("Sunday");
     // System.out.println("1.Sunday" + "\n2.Monday" + "\n3.Tuesday" + "\n4.Wednesday" + "\n5.Thursday"
+ "\n6.Friday" + "\n7.Saturday");
     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");
 }
}
}
```

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

```
package Assignment3;
import java.util.Scanner;
public class MonthDays {

 public static void main(String[] args) {
  // TODO Auto-generated method stub
        Scanner scanner=new Scanner(System.in);
        System.out.println("Enter Day: ");
        int day=scanner.nextInt();

        /*if(day==31 || day==30)
        {
         System.out.println("April" + "\nJune" + "\nSep" + "\nNov");
        }
        else if(day==28 && day==29)
        {
         System.out.println("Feb");
        }

        else
        {
         System.out.println("\nJanuary" + "\nMarch" + "\nMay" + "\nJuly" + "\nAugust" + "\nOct" + "\nDec");
        }*/

        switch(day)
        {
        case 1:
         System.out.println("31 days in:" + "\nJanuary" + "\nMarch" + "\nMay" + "\nJuly" + "\nAugust" + "\nOct
" + "\nDec");
        break;
```

```
        case 2:
         System.out.println("30 days in:"+ "\nApril" + "\nJune" + "\nSep" + "\nNov");
        break;
        case 3:
         System.out.println("28 or 29 days in:" + "\nFeb");
        break;
        }

 }
}
```