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

```
Import java.util.Scanner;
public class Leap
{
public static void main(String[] args){
//calculate the leap year
int year;
Scanner sc=new Scanner(System.in);
System.out.println("enter the any year");
year=sc.nextInt();
if(year%4==0)//check condition for leap year
{
System.out.println("entered year is leap");//true condition
}
else
{
System.out.println("entered year is not leap");//else condition
}
}
}
```

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 Program2 {
public static void main(String[] args) {

        /* 2.program to read roll no, name and marks of three subjects
        //and calculate the total, percentage and division*/
Scanner scanner = new Scanner(System.in);
System.out.println("Roll No of Student :");
int rollNo = scanner.nextInt();
System.out.println("Name of The Student :");

String studentName = scanner.next();
System.out.println("marks of physics :");
int physicsMarks = scanner.nextInt();
System.out.println("marks of chemistry :");
int chemistryMarks = scanner.nextInt();
System.out.println("marks of computer Appplication :");
int computerAppMarks = scanner.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 >= 80) {
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;
class Temp{
 public static void main(String args[]) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the temperature: ");
int temp=sc.nextInt();
String s="";
if(temp<=0) s="Freezing ";
else if(temp>=21&&temp<=30) s="Normal ";
else if(temp>=31&&temp<=40) s="Hot ";
else if(temp>40) s="Very hot ";
System.out.println(s+ "weather.");
}
}
```

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

```
import java.util.Scanner;
public class Program4{

        public static void main(String[] args) {

          Scanner scanner = new Scanner(System.in);

          System.out.println("Enter any caracter : ");
          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
V	Very Good
G	Good
A	Average
F	Fail

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

```
import java.util.Scanner;
public class Program5
 { public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println(" enter your Grade : ");
char grade = sc.next().charAt(0);
 switch (grade) {
case 'A', 'a':
System.out.println("Average");
 break;
 case 'G', 'g':
```

```
System.out.println("Good");
 break;
case 'V', 'v':
System.out.println(" Very Good");
 break;
case 'E', 'e':
System.out.println("EXcellent "); break;
case 'F', '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 Program6
{
 public static void main(String[] args) {
 // TODO Auto-generated method stub
Scanner sc = new Scanner(System.in);
System.out.println("enter day number : ");
int dayNum = sc.nextInt();
switch (dayNum) {
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 ,Please enter valid input from 1 to 7 ");
}
} }
```

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

```
import java.util.Scanner;
public class Program7 {
public static void main(String[] args) {
// TODO Auto-generated method stub
Scanner sc = new Scanner(System.in);
System.out.println("enter day number : ");
int dayNum = sc.nextInt();
```

```
switch (dayNum) { case 1:
System.out.println("31 days in january,march,may,july,august,october,december");
break;
 case 2:
System.out.println("28 days or 29 days in Feb");
 break;
case 3:

System.out.println("30 days in april,june,september,november");
  default:
System.err.println("Invalid Input ,Please check It ");
}
}
}
```