Assignment No:-2

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Batch:-April Date:-29/4/2024

1. Write a program to find maximum between two numbers.

```
import java.util.*;
public class MaximumNumber
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter First number:");
                int a = sc.nextInt();
                System.out.println("Enter Second number:");
                int b = sc.nextInt();

                if(a>b)
                {
                        System.out.println(+a+",is grater than ,"+b);
                }
                else
                {
                        System.out.println(+b+",is greater than,"+a);
                }
        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac MaximumNumber.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java MaximumNumber
Enter First number:
4
Enter Second number:
5
5,is greater than,4
```

2. Write a program to find maximum between three numbers.

```
import java.util.*;
public class MaximumThreeNumber
{
	public static void main(String[]ar)
	{
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter First number:");
		int a = sc.nextInt();
		System.out.println("Enter Second number:");
		int b = sc.nextInt();
		System.out.println("Enter Third number:");
		int c = sc.nextInt();


		if(a>b)
		{
			if(a>c)
			{
				System.out.println(a+",is grater than ,"+b+",and" +c);
			}
			else
			{
				System.out.println(c+",is grater than ,"+b+",and" +a);
			}
		}
		else if(b>a)
		{
			if(b>c)
			{
				System.out.println(+b+",is greater than,"+c+",and" +a);
			}
			else
			{
				System.out.println(c+",is grater than ,"+b+",and" +a);
			}

		}

		else
		{
			System.out.println(+c+",is greater than,"+a+",and "+b);
		}


	}
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac MaximumThreeNumber.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java MaximumThreeNumber
Enter First number:
1
Enter Second number:
2
Enter Third number:
3
3,is grater than ,2,and1
```

3. Write a program to check whether a number is negative, positive or zero.

```
import java.util.*;
public class PositiveNegative
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter First number:");
                int a = sc.nextInt();

                if(a>0)
                {
                        System.out.println(+a+",Number is positive");
                }
                else if(a<0)
                {
                        System.out.println(+a+",Number is Negative");
                }
                else
                {
                        System.out.println(+a+",Number is Zero");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac PositiveNegative.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java PositiveNegative
Enter First number:
2
2,Number is positive

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java PositiveNegative
Enter First number:
-2
-2,Number is Negative

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java PositiveNegative
Enter First number:
0
0,Number is Zero

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

4. Write a program to check whether a number is divisible by 5 and 11 or not.

```
import java.util.*;
public class DivisibleOrNot
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter First number:");
                int a = sc.nextInt();
                System.out.println("Enter Second number:");
                int b = sc.nextInt();
                if(a%5==0 && b%11==0)
                {
                        System.out.println(+a+",and " +b+",is divisible by 5 and 11");
                }
                else
                {
                        System.out.println(+a+",and " +b+",is not divisible by 5 and 11");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac DivisibleOrNot.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java DivisibleOrNot
Enter First number:
2
Enter Second number:
3
2,and 3,is not divisible by 5 and 11

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java DivisibleOrNot
Enter First number:
5
Enter Second number:
11
5,and 11,is divisible by 5 and 11

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

5. Write a program to check whether a number is even or odd.

```
import java.util.*;
public class EvenOdd
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter First number:");
                int a = sc.nextInt();
                if(a%2==0)
                {
                        System.out.println(+a+",is even number");
                }
                else
                {
                        System.out.println(+a+",is odd number");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac EvenOdd.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java EvenOdd
Enter First number:
3
3,is odd number

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java EvenOdd
Enter First number:
2
2,is even number
```

6. Write a program to check whether a year is leap year or not.

```
import java.util.*;
public class LeapYear
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Leap Year:");
                int a = sc.nextInt();
                if(a%4==0)
                {
                        System.out.println(+a+",is leap year");
                }
                else
                {
                        System.out.println(+a+",is not leap year");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac LeapYear.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java LeapYear
Enter Leap Year:
2024
2024,is leap year

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java LeapYear
Enter Leap Year:
2016
2016,is leap year

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java LeapYear
Enter Leap Year:
2021
2021,is not leap year
```

7. Write a program to check whether a character is alphabet or not.

```
import java.util.*;
public class AlphabeticalCharacter
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Alphabetical Character:");
                char ch = sc.next().charAt(0);
                if(ch>='a' && ch<='z')
                {
                        System.out.println(ch+",is Alphabetical Character");
                }
                else
                {
                        System.out.println(ch+",is not Alphabetical Character");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac AlphabeticalCharacter.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacter
Enter Alphabetical Character:
s
s,is Alphabetical Character
```

8. Write a program to input any alphabet and check whether it is vowel or consonant.

```
import java.util.*;
public class VowelOrNot
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Alphabetical Character:");
                char ch = sc.next().charAt(0);
                switch(ch)
                {
                        case 'a':
                        case 'e':
                        case 'i':
                        case 'o':
                        case 'u':System.out.println("It is a vowel");
                                break;
                        default:System.out.println("It is a consonant");
                                break;
                }
        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac VowelOrNot.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java VowelOrNot
Enter Alphabetical Character:
i
It is a vowel

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java VowelOrNot
Enter Alphabetical Character:
s
It is a consonant
```

9. Write a program to input any character and check whether it is alphabet, digit or special character.

```
import java.util.*;
public class AlphabeticalCharacterDigitOrNot
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Alphabetical Character or digit or Special charater:");
                char ch = sc.next().charAt(0);
                if(ch>='a' && ch<='z')
                {
                        System.out.println(ch+",is Alphabetical Character");
                }
                else if(ch>='0' && ch<='9')
                {
                        System.out.println(ch+",is digit");
                }
                else
                {
                        System.out.println("It is special character");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac AlphabeticalCharacterDigitOrNot.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacterDigitOrNot
Enter Alphabetical Character or digit or Special charater:
7
7,is digit

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacterDigitOrNot
Enter Alphabetical Character or digit or Special charater:
a
a,is Alphabetical Character

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacterDigitOrNot
Enter Alphabetical Character or digit or Special charater:
@
It is special character
```

10. Write a program to check whether a character is uppercase or lowercase alphabet.

```
import java.util.*;
public class AlphabeticalCharacterUpperLowerCase
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Alphabetical Character in Lower case Or Upper Case:");
                char ch = sc.next().charAt(0);
                if(ch>='a' && ch<='z')
                {
                        System.out.println(ch+",is Lower Case Alphabetical Character");
                }
                else if(ch>='A' && ch<='Z')
                {
                        System.out.println(ch+",is Upper Case Alphabetical Character");
                }
                else
                {
                        System.out.println("Invalid Input");
                }

        }
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac AlphabeticalCharacterUpperLowerCase.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacterUpperLowerCase
Enter Alphabetical Character in Lower case Or Upper Case:
A
A,is Upper Case Alphabetical Character

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java AlphabeticalCharacterUpperLowerCase
Enter Alphabetical Character in Lower case Or Upper Case:
a
a,is Lower Case Alphabetical Character
```

11. Write a program to input week number and print week day.

```
import java.util.*;
public class SwitchCaseWeekDay
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter number 1 To 7:");
                int no=sc.nextInt();
                switch(no)
                {
                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:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac SwitchCaseWeekDay.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java SwitchCaseWeekDay
Enter number 1 To 7:
1
sunday

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java SwitchCaseWeekDay
Enter number 1 To 7:
6
Friday
```

12. Write a program to input month number and print month Name.

```
import java.util.*;
public class SwitchCaseMonthNumber
{
	public static void main(String[]ar)
	{
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter number Month 1 To 12:");
		int no=sc.nextInt();
		System.out.println("----------------------------");
		switch(no)
		{
		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 input Enter Month number 1 To 12");
			break;
		}
	}
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac SwitchCaseMonthNumber.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java SwitchCaseMonthNumber
Enter number Month 1 To 12:
3
----------------------------
March

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java SwitchCaseMonthNumber
Enter number Month 1 To 12:
6
----------------------------
June
```

13. Write a program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

Percentage >= 90% : Grade A

Percentage >= 80% : Grade B

Percentage >= 70% : Grade C

Percentage >= 60% : Grade D

Percentage >= 40% : Grade E

Percentage < 40% : Grade F.

```
import java.util.*;
public class CalculatePercentageOfFiveSubjects
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Physics marks :");
                int phy = sc.nextInt();
                System.out.println("Enter Chemistry marks:");
                int che = sc.nextInt();
                System.out.println("Enter Biology marks:");
                int bio = sc.nextInt();
                System.out.println("Enter Mathematics  marks:");
                int maths = sc.nextInt();
                System.out.println("Enter Computer marks:");
                int com = sc.nextInt();
                float percentage=(phy+che+bio+maths+com)/5;
                if(percentage >= 90)
                {
                        System.out.println("Grade A:"+percentage);
                }
                else if(percentage >= 80)
                {
                        System.out.println("Grade B:"+percentage);
                }
                else if(percentage >= 70)
                {
                        System.out.println("Grade C:"+percentage);
                }
                else if(percentage >= 60)
                {
                        System.out.println("Grade D:"+percentage);
                }
                else if(percentage >= 40)
                {
                        System.out.println("Grade E:"+percentage);
                }
                else if(percentage < 40)
                {
                        System.out.println("Grade F:"+percentage);
                }

                else
                {
                        System.out.println("Invalid Output");
                }


        }
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac CalculatePercentageOfFiveSubjects.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java CalculatePercentageOfFiveSubjects
Enter Physics marks :
98
Enter Chemistry marks:
78
Enter Biology marks:
99
Enter Mathematics  marks:
89
Enter Computer marks:
90
Grade A:90.0
```

14. A company insures its drivers in the following cases:

If the driver is married

If the driver is unmarried, male & above 30 years of age

If the driver is unmarried, female & above 25 years of age.

```
import java.util.*;
public class ElseIfInsurenceEligiblity
{
	public static void main(String[]ar)
	{
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter your age:");
		int age=sc.nextInt();
		System.out.println("Married Status(y/n):");
		char s=sc.next().charAt(0);
		System.out.println("Enter your gender(f/m):");
		char ch=sc.next().charAt(0);

		if(s=='y')
		{
			System.out.println("The Driver is married");
			if(age>=30)
			{
				System.out.println("Driver is eligible");
			}

		}
		if(s=='n')
		{
			if(age>=25)
			{
				System.out.println("Driver is eligible");
			}
				if(ch=='m')
				{
					System.out.println(" the driver is unmarried, male & above 25 years of age");
				}
				if(ch=='f')
				{
					 System.out.println("the driver is unmarried, female & above 25 years of age");
				}
		}


	}
}
```

Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac ElseIfInsurenceEligiblity.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java ElseIfInsurenceEligiblity
Enter your age:
26
Married Status(y/n):
n
Enter your gender(f/m):
m
Driver is eligible
 the driver is unmarried, male & above 25 years of age
```