

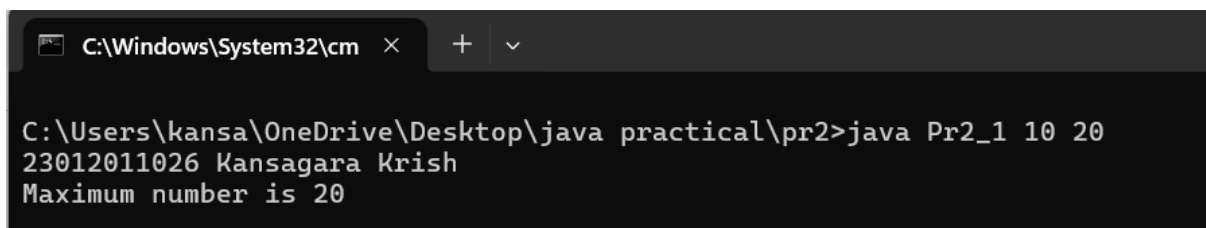
PRACTICAL-2

1. WAP takes two numbers as input from the command line arguments and prints the maximum number.

Program:-

```
class Pr2_1
{
    public static void main(String[] args)
    {
        System.out.println("23012011026 Kansagara Krish");
        int n1= Integer.parseInt(args[0]);
        int n2= Integer.parseInt(args[1]);
        if(n1<n2)
        {
            System.out.println("Maximum number is "+n2);
        }
        else
        {
            System.out.println("Maximum number is "+n1);
        }
    }
}
```

Output:-



```
C:\Windows\System32\cmd × + v
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_1 10 20
23012011026 Kansagara Krish
Maximum number is 20
```

2. WAP takes two numbers as input from the command line arguments and prints their addition, subtraction, multiplication & division.

Eg 40 + 30 = 70
40 - 30 = 10
40 * 30 = 1200
40 / 30 = 1

Program:-

```
class Pr2_2
{
    public static void main(String[] args)
```

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```
{
    int n1=Integer.parseInt(args[0]);
    int n2=Integer.parseInt(args[1]);
    System.out.println("E,no:-23012011026 Name:-Kansagara Krish");
    System.out.println("Sum of "+n1+" and "+n2+" is "+(n1+n2));
    System.out.println("Subtraction of "+n1+" and "+n2+" is "+(n1-n2));
    System.out.println("Multiplication of "+n1+" and "+n2+" is "+(n1*n2));
    System.out.println("Division of "+n1+" and "+n2+" is "+(n1/n2));
}
```

Output:-

```
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_2 40 30
E,no:-23012011026 Name:-Kansagara Krish
Sum of 40 and 30 is 70
Subtraction of 40 and 30 is 10
Multiplication of 40 and 30 is 1200
Divison of 40 and 30 is 1
```

3.AP to print the appropriate message according to the average Marks: (Note: Using Switch case)

Average Marks	Grade
90 to 100	A+
80 to 89	A
60 to 79	B
50 to 59	B+
40 to 49	C
0 to 39	F

Program:-

```
class Pr2_3
```

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```
{
public static void main(String[] args)
{
    int n=Integer.parseInt(args[0]);
    switch(n/10)
    {
        case 10:
        System.out.println("+A");
        break;
        case 9:
        System.out.println("+A");
        break;
        case 8:
        System.out.println("A");
        break;
        case 7:
        System.out.println("B");
        break;
        case 6:
        System.out.println("B");
        break;
        case 5:
        System.out.println("+B");
        break;
        case 4:
        System.out.println("C");
        break;
        default:
        System.out.println("F");
        break;
    }
}
}
```

Output:-

```
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_3 75
23012011026 Kansagara
B
```

4. WAP to find out the entered year is a leap year or not using command line arguments.

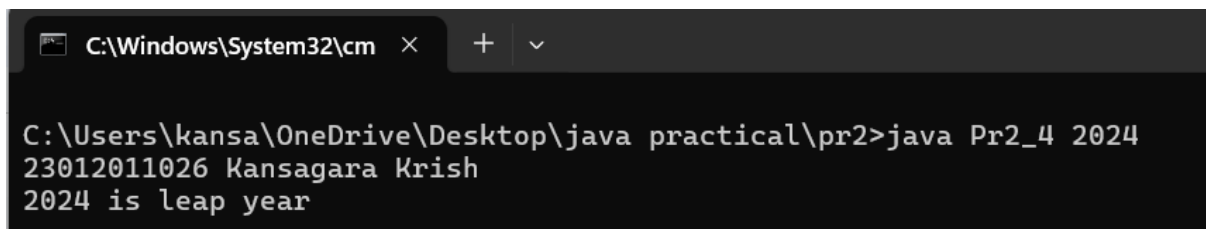
Program:-

```
class Pr2_4
{
```

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```
public static void main(String[] args)
{
    System.out.println("23012011026 Kansagara Krish");
    int year=Integer.parseInt(args[0]);
    if((year%4==0 && year%100!=0) || (year%400==0))
    {
        System.out.println(year+" is leap year");
    }
    else
    {
        System.out.println(year+" is not leap year");
    }
}
}
```

Output:-

A screenshot of a Windows command prompt window. The title bar shows the file explorer path 'C:\Windows\System32\cmd' with a close button. The command prompt shows the command 'C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_4 2024' and its output: '23012011026 Kansagara Krish' followed by '2024 is leap year' on the next line.

```
C:\Windows\System32\cmd × + v
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_4 2024
23012011026 Kansagara Krish
2024 is leap year
```

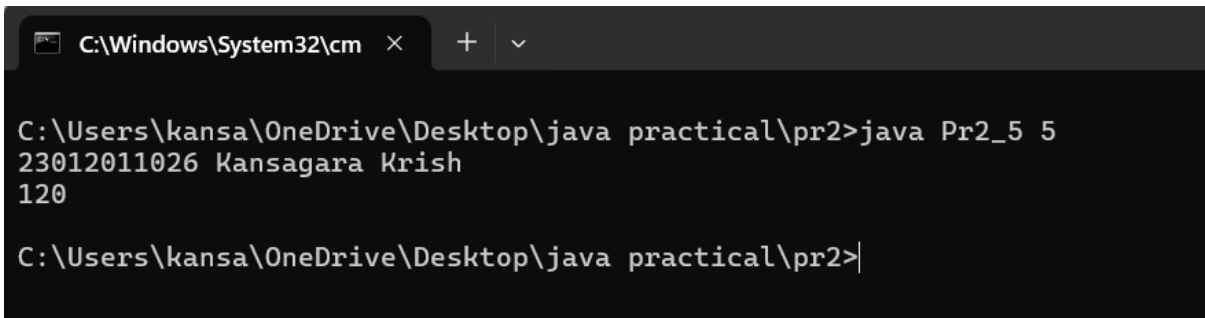
5. WAP to find the factorial of a given number using command line arguments.

Program:-

```
class Pr2_5
{
    public static void main(String[] args)
    {
        int n=Integer.parseInt(args[0]);
        int fact=1;
        System.out.println("23012011026 Kansagara Krish");
        for(int i=1;i<=n;i++)
        {
            fact=fact*i;
        }
        System.out.println(fact);
    }
}
```

Output:-

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```
C:\Windows\System32\cmd  ×  +  v

C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_5 5
23012011026 Kansagara Krish
120

C:\Users\kansa\OneDrive\Desktop\java practical\pr2>|
```

6. Write a Java program to print a given number is an Armstrong number or not using command line arguments.

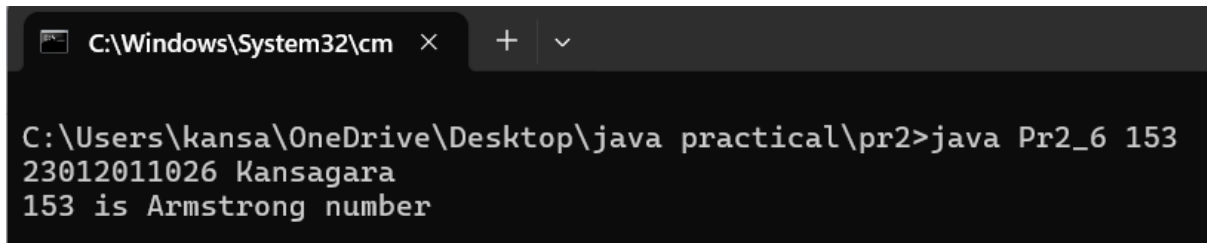
e.g. 153 is Armstrong due to $1+125+27=153$).

Program:-

```
class Pr2_6
{
    public static void main(String[] args)
    {
        int n=Integer.parseInt(args[0]);
        int temp=n;
        int c,t=0;
        System.out.println("23012011026 Kansagara");
        while(temp>0)
        {
            c=temp%10;
            temp=temp/10;
            t=t+(c*c*c);
        }
        if(n==t)
        {
            System.out.println(n+" is Armstrong number");
        }
        else
        {
            System.out.println(n+" is not Armstrong number");
        }
    }
}
```

Output:-

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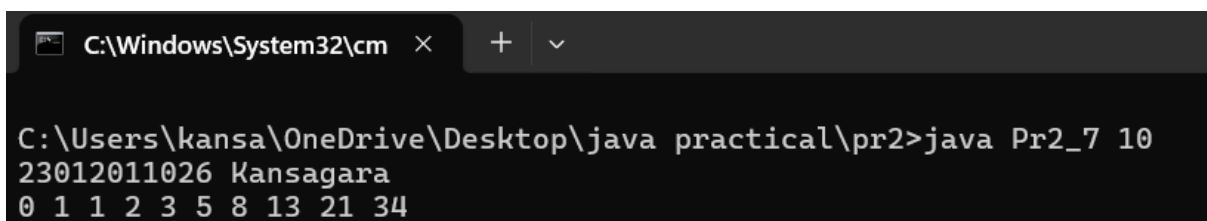
```
C:\Windows\System32\cmd
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_6 153
23012011026 Kansagara
153 is Armstrong number
```

7. WAP to generate Fibonacci series up to n numbers using command line arguments.

Program:-

```
class Pr2_7
{
    public static void main(String[] args)
    {
        int n=Integer.parseInt(args[0]);
        int x=0,y=1,z;
        System.out.println("23012011026 Kansagara");
        System.out.print(x+" ");
        System.out.print(y+" ");
        for(int i=0;i<n-2;i++)
        {
            z=x+y;
            System.out.print(z+" ");
            x=y;
            y=z;
        }
    }
}
```

Output:-



```
C:\Windows\System32\cmd
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_7 10
23012011026 Kansagara
0 1 1 2 3 5 8 13 21 34
```

8. Write a Java program to find prime numbers between 1 to n using command line arguments.

Program:-

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```
class Pr2_8
{
    public static void main(String[] args)
    {
        int i,j,n,f;
        n=Integer.parseInt(args[0]);
        System.out.println("23012011026 Kansagara Krish");
        for(i=2;i<=n;i++)
        {
            f=0;
            for(j=2;j<i;j++)
            {
                if(i%j==0)
                {
                    f=1;
                    break;
                }
            }
            if(f==0)
            {
                System.out.println(i);
                break;
            }
        }
    }
}
```

Output:-



```
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_8 10
3
5
7
9
```

9. WAP to find maximum and minimum out of three numbers using the conditional operator.

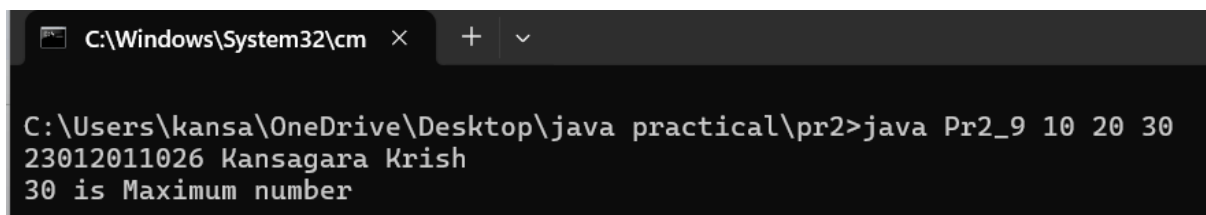
Program:-

```
class Pr2_9
{
    public static void main(String[] args)
    {
```

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```
int n1=Integer.parseInt(args[0]);
int n2=Integer.parseInt(args[1]);
int n3=Integer.parseInt(args[2]);
System.out.println("23012011026 Kansagara Krish");
if(n1>n2 && n1>n3)
{
    System.out.println(n1+" is Maximum number");
}
else if(n2>n1 && n2>n3)
{
    System.out.println(n2+" is Maximum number");
}
else
{
    System.out.println(n3+" is Maximum number");
}
}
}
```

Output:-



```
C:\Windows\System32\cmd  x  +  v

C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_9 10 20 30
23012011026 Kansagara Krish
30 is Maximum number
```

10. WAP to show the use of implicit and explicit type casting.

Program:-

```
class Pr2_10
{
    public static void main(String[] args)
    {
        int x=10,b;
        double a=25.37,y;
        System.out.println("Example of Implicit typecasting");
        System.out.println(y=x);
        System.out.println("Example of Explicit typecasting");
        b=(int)a;
        System.out.println(b);
    }
}
```


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```
}  
}
```

Output:-

```
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_10  
Example of Implicit typecasting  
10.0  
Example of Explicit typecasting  
25
```

11. Write a program to print Odd & Even numbers between 1 to n using the command line argument.

i. Using for loop

ii. Using while loop

iii. Using do while loop

Program(i):-

```
class Pr2_11  
{  
    public static void main(String[] args)  
    {  
        int n=Integer.parseInt(args[0]);  
        int i;  
        System.out.println("23012011026 Kansagara Krish");  
        for(i=1;i<=n;i++)  
        {  
            if(i%2==0)  
            {  
                System.out.println(i+" is Even");  
            }  
            else if(i%2!=0)  
            {  
                System.out.println(i+" is Odd");  
            }  
        }  
    }  
}
```

Program(ii):-

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```
class Pr2_11_2
{
public static void main(String[] args)
{
    int n=Integer.parseInt(args[0]);
    int i=1;
    System.out.println("23012011026 Kansagara Krish");
    while(i<=n)
    {
        if(i%2==0)
        {
            System.out.println(i+" is Even");
        }
        else if(i%2!=0)
        {
            System.out.println(i+" is Odd");
        }
        i++;
    }
}
```

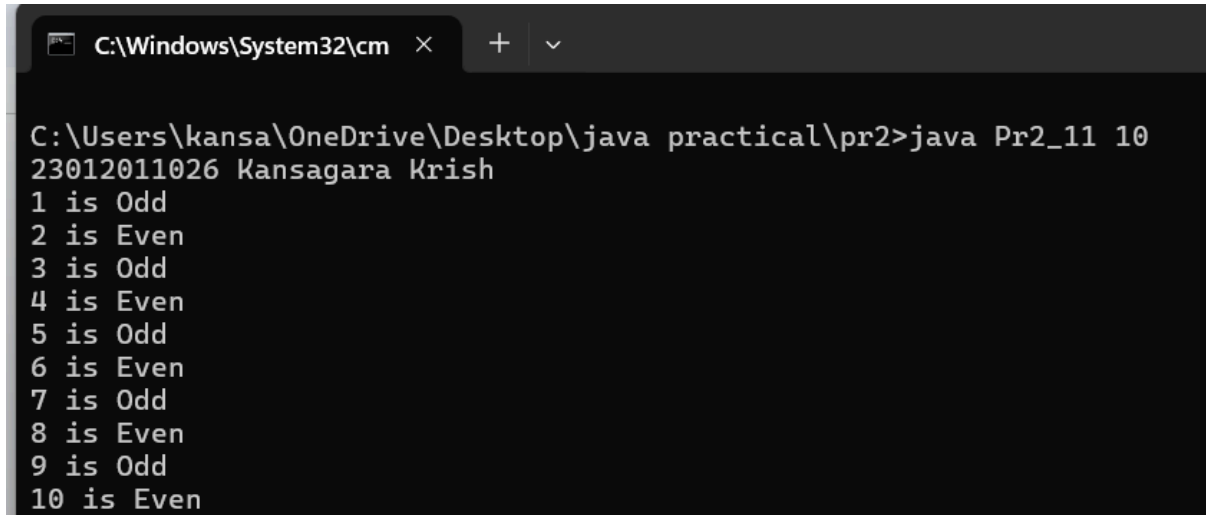
Program(iii):-

```
class Pr2_11_3
{
public static void main(String[] args)
{
    int n=Integer.parseInt(args[0]);
    int i=1;
    System.out.println("23012011026 Kansagara Krish");
    do
    {
        if(i%2==0)
        {
            System.out.println(i+" is Even");
        }
        else if(i%2!=0)
        {
            System.out.println(i+" is Odd");
        }
        i++;
    }while(i<=n);
}
```

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```
}  
}
```

Output:-



```
C:\Windows\System32\cmd x + v  
  
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_11 10  
23012011026 Kansagara Krish  
1 is Odd  
2 is Even  
3 is Odd  
4 is Even  
5 is Odd  
6 is Even  
7 is Odd  
8 is Even  
9 is Odd  
10 is Even
```

12. Write a program to print multiplicative tables like follow: (Hint: use “continue;” statement in your loop to skip a particular iteration. Use “break;” to limit only those multiplicative tables up to which you want).

Enter the skip point number: 6

How many total no. of tables do you want? 3

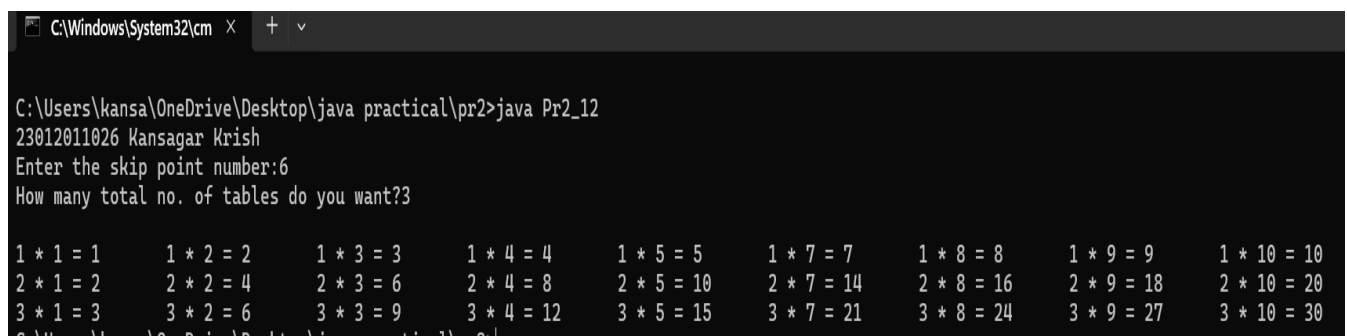
Program:-

```
import java.util.Scanner;  
class Pr2_12  
{  
    public static void main(String[] args)  
    {  
        System.out.println("23012011026 Kansagar Krish");  
        Scanner scan=new Scanner(System.in);  
        System.out.print("Enter the skip point number:");  
        int n1=scan.nextInt();  
        System.out.print("How many total no. of tables do you want?");  
        int n2=scan.nextInt();  
        for(int i=1;i<=n2;i++)  
        {  
            System.out.print("\n");  
            for(int j=1;j<=10;j++)  
            {  
                if(j==n1)
```

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```
{
continue;
}
else{
    System.out.print(i+" * "+j+" = "+i*j+"\t");
}
}
}
}
}
```

Output:-



```
C:\Windows\System32\cmd x + v

C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_12
23012011026 Kansagar Krish
Enter the skip point number:6
How many total no. of tables do you want?3

1 * 1 = 1    1 * 2 = 2    1 * 3 = 3    1 * 4 = 4    1 * 5 = 5    1 * 7 = 7    1 * 8 = 8    1 * 9 = 9    1 * 10 = 10
2 * 1 = 2    2 * 2 = 4    2 * 3 = 6    2 * 4 = 8    2 * 5 = 10   2 * 7 = 14   2 * 8 = 16   2 * 9 = 18   2 * 10 = 20
3 * 1 = 3    3 * 2 = 6    3 * 3 = 9    3 * 4 = 12   3 * 5 = 15   3 * 7 = 21   3 * 8 = 24   3 * 9 = 27   3 * 10 = 30
```

14. WAP to initialise the three variables x = 7, y = 3.4, and z = 6.7. Display the result of each of the following arithmetic expressions using a System.out.println () statement. In the Interpretation column, find out the precedence rules discussed in the lecture.

Program:-

```
class Pr2_14
{
    public static void main(String[] args)
    {
        double y=3.4,z=6.7,x=7;
        System.out.println(x+y*z);
        System.out.println(x/y*z);
        System.out.println(x/2+y/2);
        System.out.println((x%5)*(3+1));
        System.out.println((y+3)*2);
        System.out.println(z/(1+1));
    }
}
```

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```
}  
}
```

Output:-

```
C:\Users\kansa\OneDrive\Desktop\java practical\pr2>java Pr2_14  
29.78  
13.794117647058826  
5.2  
8.0  
12.8  
3.35
```