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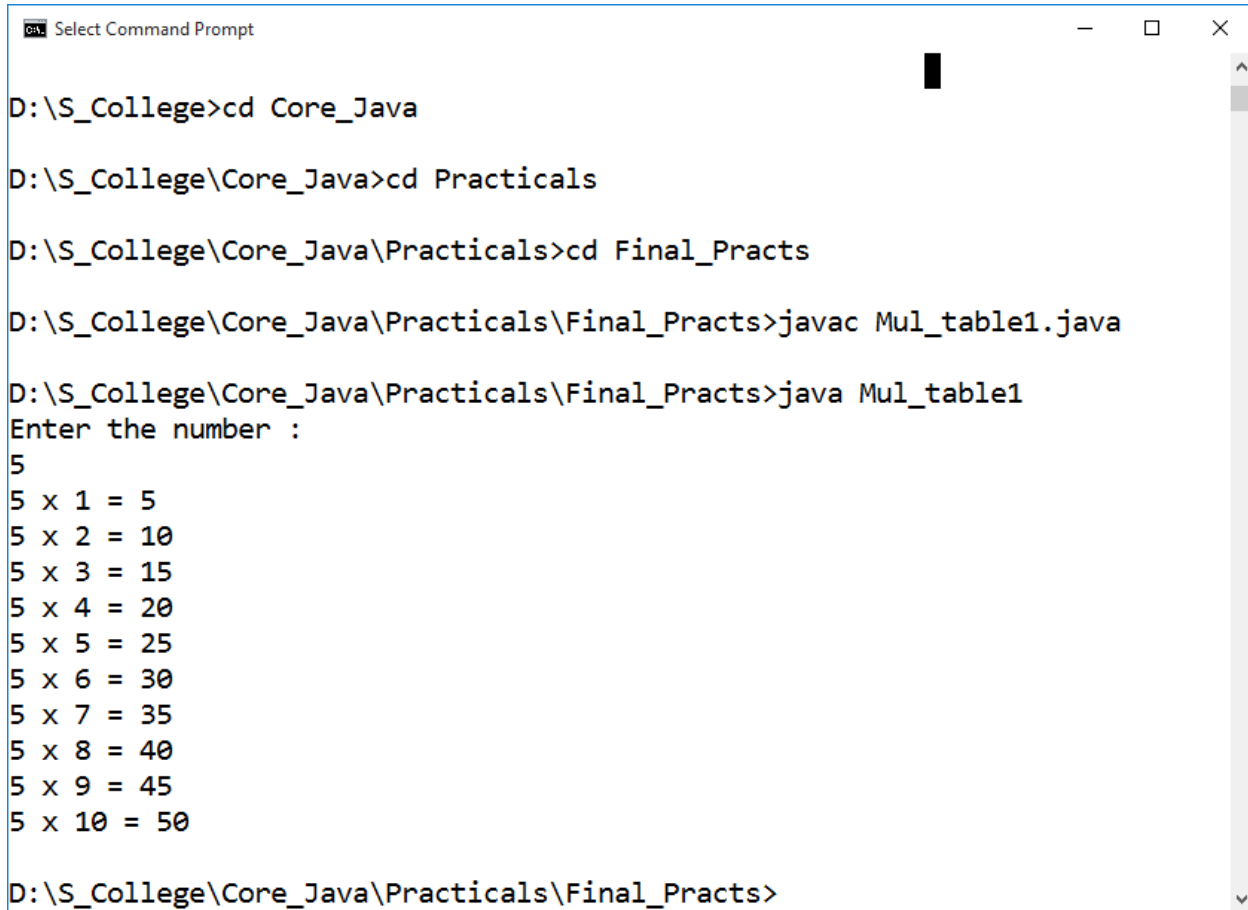
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**PRACTIAL NO.1 (A)**

**AIM:** Write a Java program that takes a number as input and prints its multiplication table up to 10.

**SOURCE CODE:**

```
import java.util.Scanner;
import java.io.*;
class Mul_table1
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number :");
        int n=sc.nextInt();
        for(int i=1;i<=10;i++)
        {
            System.out.println(n+" x "+i+" = "+n*i);
        }
    }
}
```

**OUTPUT:**

```
Select Command Prompt

D:\S_College>cd Core_Java

D:\S_College\Core_Java>cd Practicals

D:\S_College\Core_Java\Practicals>cd Final_Practs

D:\S_College\Core_Java\Practicals\Final_Practs>javac Mul_table1.java

D:\S_College\Core_Java\Practicals\Final_Practs>java Mul_table1
Enter the number :
5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50

D:\S_College\Core_Java\Practicals\Final_Practs>
```

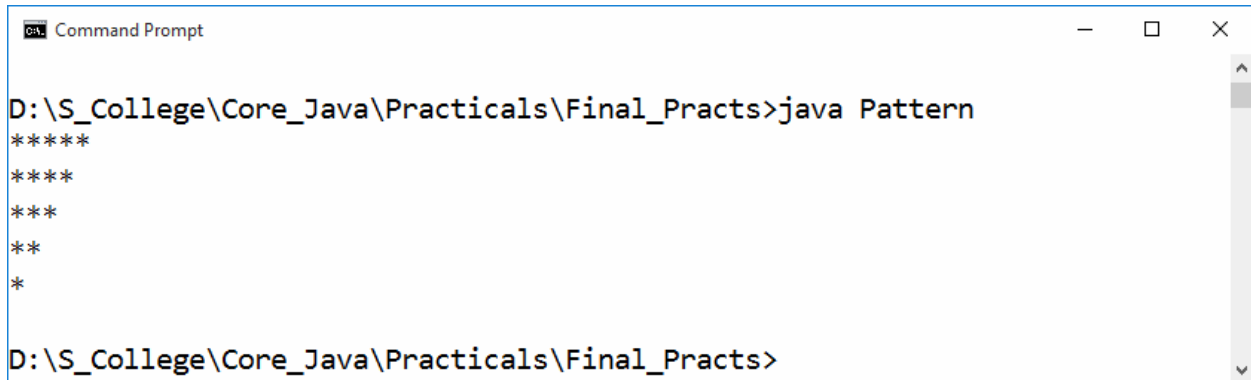
**PRACTIAL NO.1 (B)**

**AIM:** Write the java program to display the following pattern:

```
*****
*****
***
**
*
```

**SOURCE CODE:**

```
import java.util.*;
import java.io.*;
public class Patten
{
    public static void main(String args[])
    {
        int i,j;
        for(i=5;i>=1;i--)
        {
            for(j=1;j<=i;j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

**OUTPUT:**

```
Command Prompt
D:\S_College\Core_Java\Practicals\Final_Practs>java Pattern
*****
*****
****
***
**
*
D:\S_College\Core_Java\Practicals\Final_Practs>
```

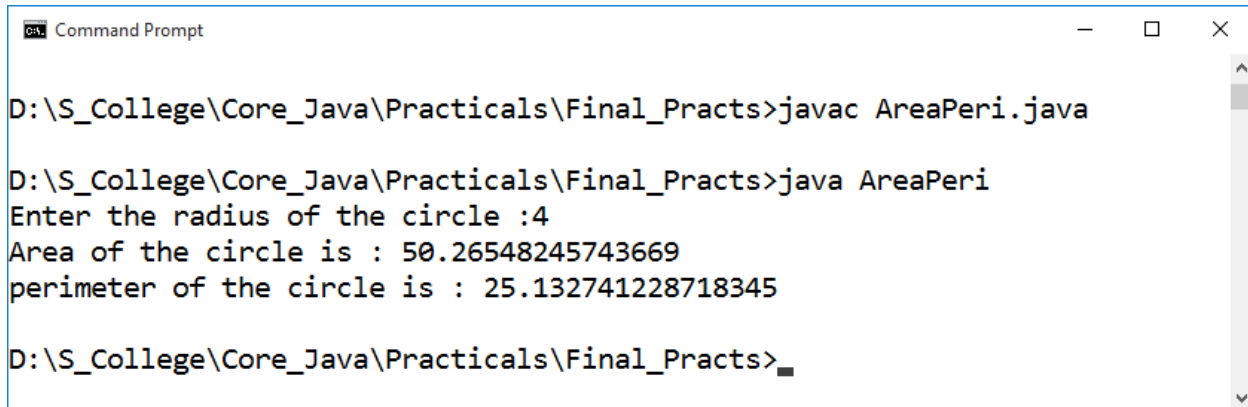
**PRACTIAL NO.1 (C)**

**AIM:** Write the Java program to Print the area and perimeter of a circle.

**SOURCE CODE:**

```
import java.util.Scanner;
import java.io.*;

public class AreaPari
{
    public static void main(String args[])
    {
        double radius,area,perimeter;
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter the radius of the circle :");
        radius=sc.nextDouble();
        area=Math.PI*radius*radius;
        perimeter=2*Math.PI*radius;
        System.out.println("Area of the circle is : "+area);
        System.out.println("perimeter of the circle is : "+perimeter);
    }
}
```

**OUTPUT:**

```
Command Prompt
D:\S_College\Core_Java\Practicals\Final_Practs>javac AreaPeri.java
D:\S_College\Core_Java\Practicals\Final_Practs>java AreaPeri
Enter the radius of the circle :4
Area of the circle is : 50.26548245743669
perimeter of the circle is : 25.132741228718345
D:\S_College\Core_Java\Practicals\Final_Practs>
```

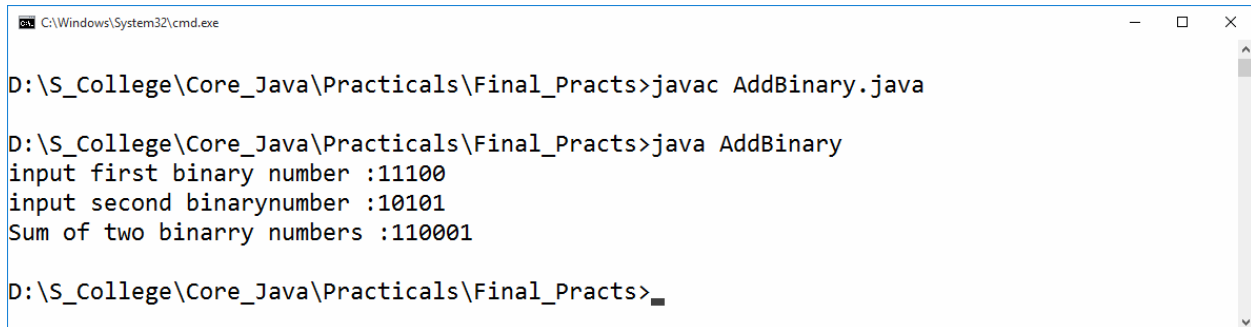
**PRACTIAL NO.2 (A)**

**AIM:** Write the Java program to add two binary numbers

**SOURCE CODE:**

```
import java.util.*;
import java.io.*;
class AddBinary
{
    public static void main(String args[])
    {
        long b1,b2;
        int i=0, remainder=0;
        int[] sum =new int[20];
        Scanner in=new Scanner(System.in);
        System.out.print("input first binary number :");
        b1=in.nextLong();
        System.out.print("input second binarynumber :");
        b2=in.nextLong();
        while(b1!=0||b2!=0)
        {
            sum[i++]=(int)((b1%10+b2%10+remainder)%2);
            remainder=(int)((b1%10+b2%10+remainder)/2);
            b1=b1/10;
            b2=b2/10;
        }
        if(remainder!=0)
        {
            sum[i++]=remainder;
        }
        --i;
        System.out.print("Sum of two binary numbers :");
        while(i>=0)
        {
            System.out.print(sum[i--]);
        }
        System.out.print("\n");
    }
}
```



**OUTPUT:**

A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\System32\cmd.exe'. The command prompt shows the following sequence of commands and output:

```
D:\S_College\Core_Java\Practicals\Final_Practs>javac AddBinary.java
D:\S_College\Core_Java\Practicals\Final_Practs>java AddBinary
input first binary number :11100
input second binarynumber :10101
Sum of two binarry numbers :110001
D:\S_College\Core_Java\Practicals\Final_Practs>_
```

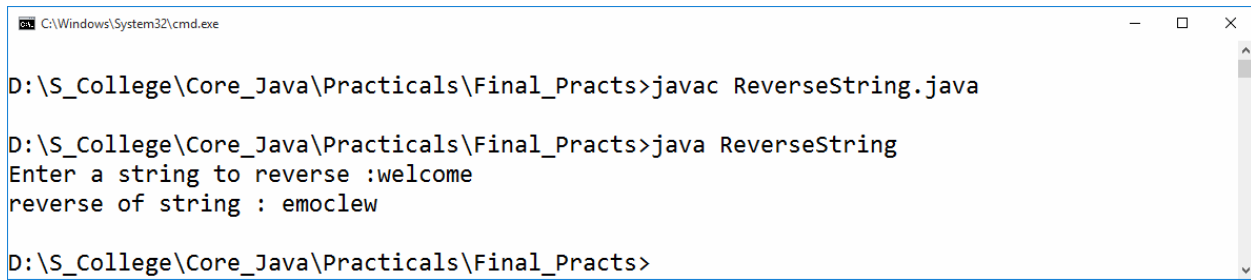
**PRACTIAL NO.2 (B)**

**AIM:** Write a Java program to reverse a String.

**SOURCE CODE:**

```
import java.util.*;

class ReverseString
{
    public static void main(String args[])
    {
        String original,reverse=" ";
        Scanner in=new Scanner(System.in);
        System.out.print("Enter a string to reverse :");
        original=in.nextLine();
        int length=original.length();
        for(int i=length-1;i>=0;i--)
            reverse=reverse+original.charAt(i);
        System.out.println("reverse of string :"+reverse);
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe

D:\S_College\Core_Java\Practicals\Final_Practs>javac ReverseString.java

D:\S_College\Core_Java\Practicals\Final_Practs>java ReverseString
Enter a string to reverse :welcome
reverse of string : emoclew

D:\S_College\Core_Java\Practicals\Final_Practs>
```

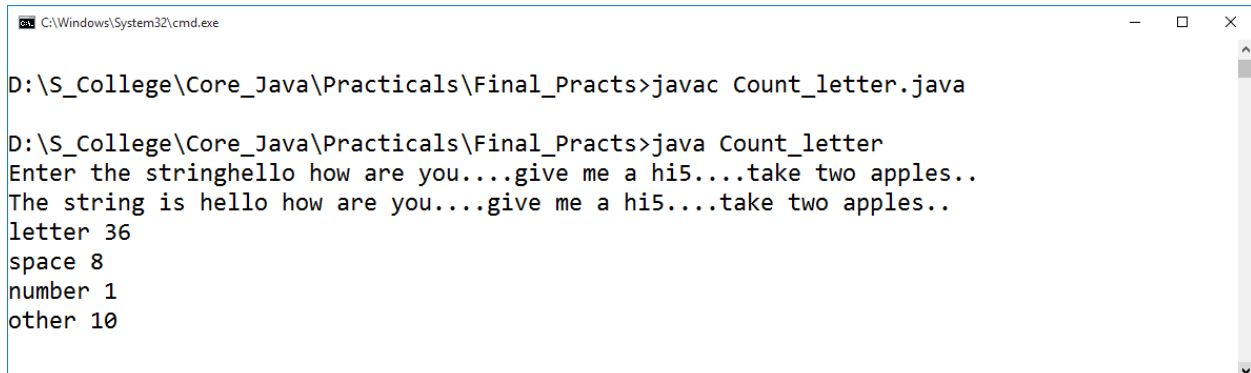
**PRACTIAL NO.3 (A)**

**AIM:** Write a Java program to count the letter, spaces, number and other characters of an input string.

**SOURCE CODE:**

```
import java.util.Scanner;

public class Count_letter
{
    public static void main(String[] args)
    {
        String str;
        System.out.print("Enter the string");
        Scanner sc=new Scanner(System.in);
        str=sc.nextLine();
        int letter=0;
        int space=0;
        int num=0;
        int other=0;
        for(int i=0;i<str.length();i++)
        {
            if(Character.isLetter(str.charAt(i)))
                letter++;
            else if(Character.isDigit(str.charAt(i)))
                num++;
            else if(Character.isSpaceChar(str.charAt(i)))
                space++;
            else
                other++;
        }
        System.out.println("The string is "+str);
        System.out.println("letter "+letter);
        System.out.println("space "+space);
        System.out.println("number "+num);
        System.out.println("other "+other);
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe

D:\S_College\Core_Java\Practicals\Final_Practs>javac Count_letter.java

D:\S_College\Core_Java\Practicals\Final_Practs>java Count_letter
Enter the stringhello how are you....give me a hi5....take two apples..
The string is hello how are you....give me a hi5....take two apples..
letter 36
space 8
number 1
other 10
```

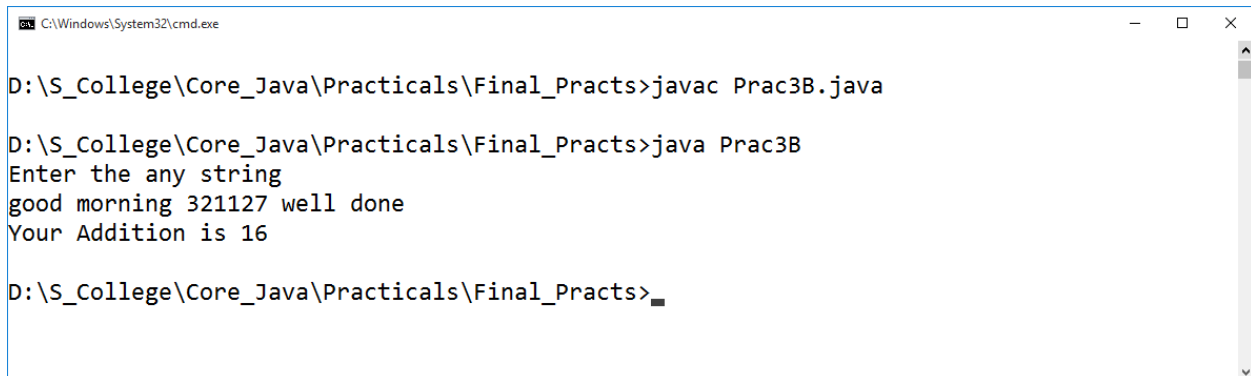
**PRACTIAL NO.3 (B)**

**AIM:** Implement a Java function that calculates the sum of digits for a given char array consisting of the digits '0' to '9'. The function should return the digit sum as a long value.

**SOURCE CODE:**

```
import java.util.*;
class Prac3B
{
    public static void main(String args[])
    {
        Scanner ob=new Scanner(System.in);
        System.out.println("Enter the any string ");
        String s=ob.nextLine();
        count(s);
    }

    public static void count(String str)
    {
        int sum=0;
        int d=0;
        char ch[]=str.toCharArray();
        for(int i=0;i<str.length();i++)
        {
            if(Character.isDigit(ch[i]))
            {
                sum+=Character.getNumericValue(ch[i]);
            }
        }
        System.out.println("Your Addition is "+sum);
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe

D:\S_College\Core_Java\Practicals\Final_Practs>javac Prac3B.java

D:\S_College\Core_Java\Practicals\Final_Practs>java Prac3B
Enter the any string
good morning 321127 well done
Your Addition is 16

D:\S_College\Core_Java\Practicals\Final_Practs>
```

**PRACTIAL NO.4 (A)**

**AIM:** Designed a class SortData that contains the method asce() and desc().

**SOURCE CODE:**

```
import java.util.*;
class prac4A
{
    Scanner input=new Scanner(System.in);
    int num,i;
    int arr[];
    int temp=0;
    public void getdata()
    {
        System.out.print("Enter the size of array: ");
        num=input.nextInt();
        arr=new int[num];
        System.out.print("Enter the number: ");
        for( i=0;i<num;i++)
        {
            arr[i]=input.nextInt();
        }
    }
    void putdata()
    {
        System.out.print("Given numbers are: ");
        for(i=0;i<num;i++)
        {
            System.out.println(arr[i]);
        }
    }
    void asce()
    {
        for(i=0;i<num;i++)
        {
            for(int j=i+1;j<num;j++)
            {
                if(arr[i]>arr[j])
                {
                    temp=arr[i];
                    arr[i]=arr[j];
                }
            }
        }
    }
}
```

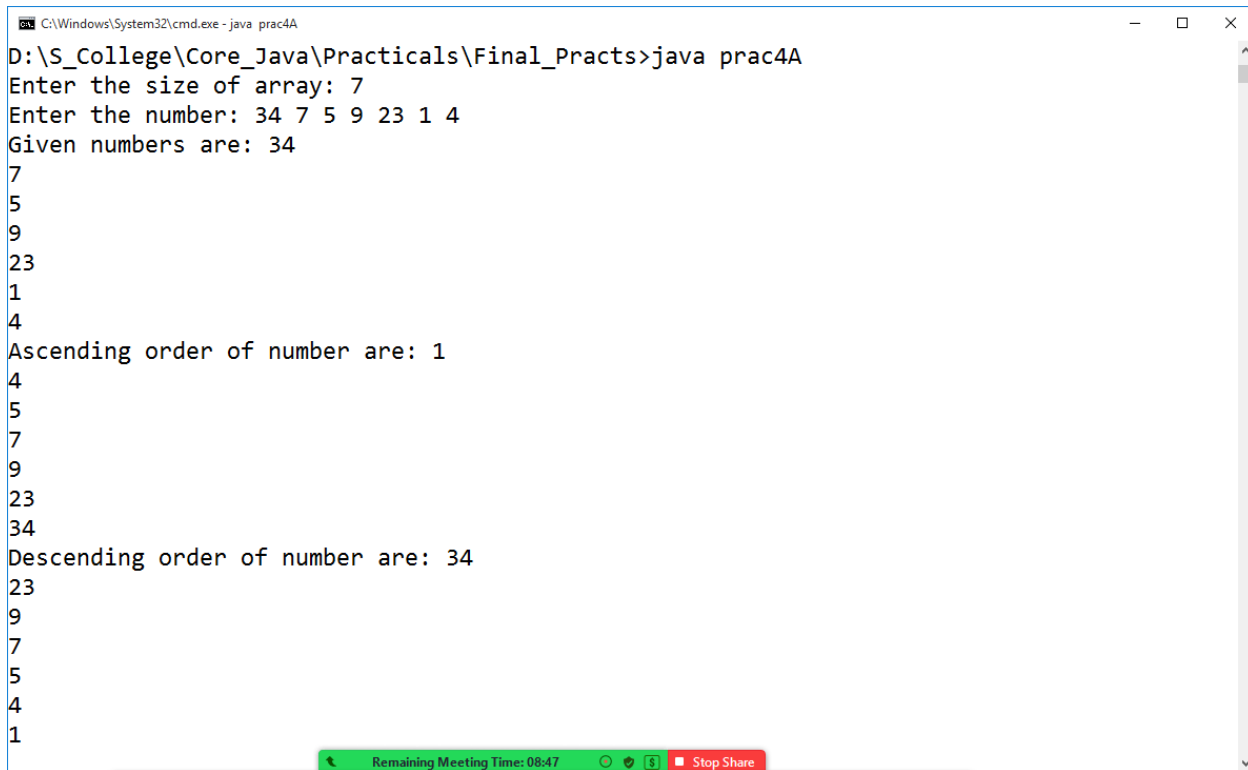


```
        arr[j]=temp;
    }
}
}
System.out.print("Ascending order of number are: ");
for(int i=0;i<num;i++)
{
    System.out.println(arr[i]);
}
}

void desc()
{
    for(i=0;i<num;i++)
    {
        for(int j=i+1;j<num;j++)
        {
            if(arr[i]<arr[j])
            {
                temp=arr[i];
                arr[i]=arr[j];
                arr[j]=temp;
            }
        }
    }
}

System.out.print("Descending order of number are: ");
for(int i=0;i<num;i++)
{
    System.out.println(arr[i]);
}
}

public static void main(String args[])
{
    prac4A ob=new prac4A();
    ob.getdata();
    ob.putdata();
    ob.asce();
    ob.desc();
}
}
```

**OUTPUT:**

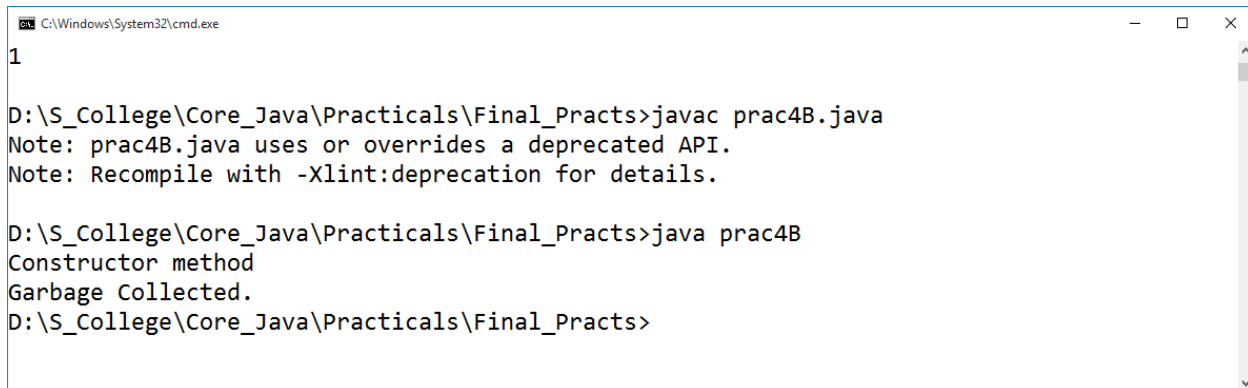
```
C:\Windows\System32\cmd.exe - java prac4A
D:\S_College\Core_Java\Practicals\Final_Practs>java prac4A
Enter the size of array: 7
Enter the number: 34 7 5 9 23 1 4
Given numbers are: 34
7
5
9
23
1
4
Ascending order of number are: 1
4
5
7
9
23
34
Descending order of number are: 34
23
9
7
5
4
1
```

**PRACTIAL NO.4 (B)**

**AIM:** Design a class that demonstrates the use of constructor and destructor.

**SOURCE CODE:**

```
class xyz
{
    xyz()
    {
        System.out.println("Constructor method ..... ");
    }
    protected void finalize()
    {
        System.out.print("Garbage Collected. ...");
    }
}
class prac4B
{
    public static void main(String args[])
    {
        xyz ob=new xyz();
        ob=null;
        System.gc();
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe
1
D:\S_College\Core_Java\Practicals\Final_Practs>javac prac4B.java
Note: prac4B.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.

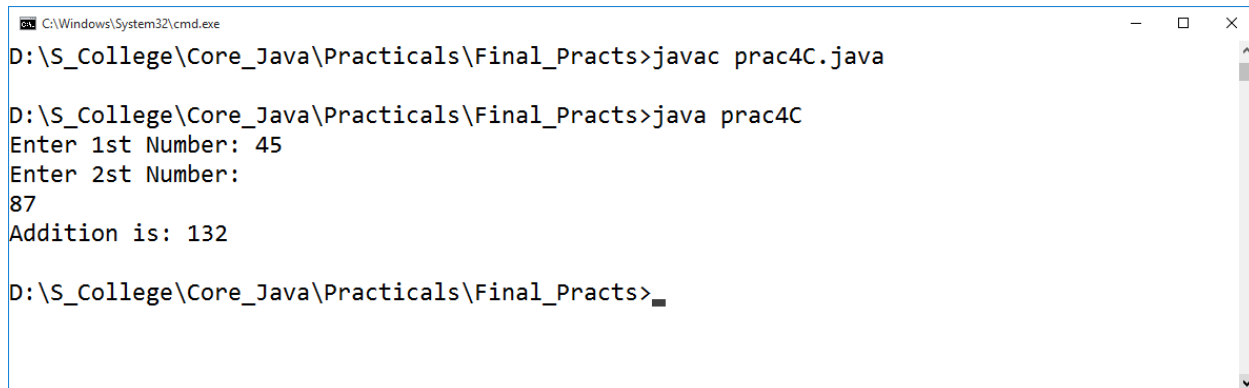
D:\S_College\Core_Java\Practicals\Final_Practs>java prac4B
Constructor method
Garbage Collected.
D:\S_College\Core_Java\Practicals\Final_Practs>
```

**PRACTIAL NO.4 (C)**

**AIM:** Write a java that demonstrates the implementation of abstract class.

**SOURCE CODE:**

```
import java.util.Scanner;
abstract class test
{
    abstract void get();
}
class test1 extends test
{
    void get()
    {
        int a,b;
        Scanner ob=new Scanner(System.in);
        System.out.print("Enter 1st Number: ");
        a=ob.nextInt();
        System.out.println("Enter 2st Number: ");
        b=ob.nextInt();
        System.out.println("Addition is: "+(a+b));
    }
}
class prac4C
{
    public static void main(String args[])
    {
        test1 obj=new test1();
        obj.get();
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe
D:\S_College\Core_Java\Practicals\Final_Practs>javac prac4C.java
D:\S_College\Core_Java\Practicals\Final_Practs>java prac4C
Enter 1st Number: 45
Enter 2st Number:
87
Addition is: 132
D:\S_College\Core_Java\Practicals\Final_Practs>
```

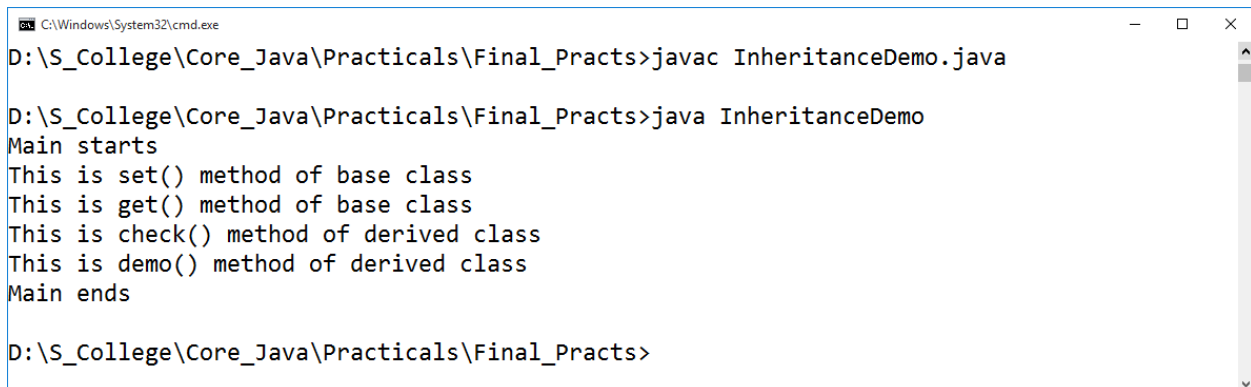
**PRACTIAL NO.5 (A)**

**AIM:** Write a Java program to implement single level inheritance.

**SOURCE CODE:**

```
import java.io.*;
class Base
{
    public void set()
    {
        System.out.println("This set() method of base class");
    }
    public void get()
    {
        System.out.println("This get() method of base class");
    }
}
class Derived extends Base
{
    public void check()
    {
        System.out.println("This check() method of derived class");
    }
    public void demo()
    {
        System.out.println("This demo() method of derived class");
    }
}

class InheritanceDemo
{
    public static void main(String args[])
    {
        System.out.println("Main starts");
        Derived d=new Derived();
        d.set();
        d.get();
        d.check();
        d.demo();
        System.out.println("Main ends");
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe
D:\S_College\Core_Java\Practicals\Final_Practs>javac InheritanceDemo.java

D:\S_College\Core_Java\Practicals\Final_Practs>java InheritanceDemo
Main starts
This is set() method of base class
This is get() method of base class
This is check() method of derived class
This is demo() method of derived class
Main ends

D:\S_College\Core_Java\Practicals\Final_Practs>
```

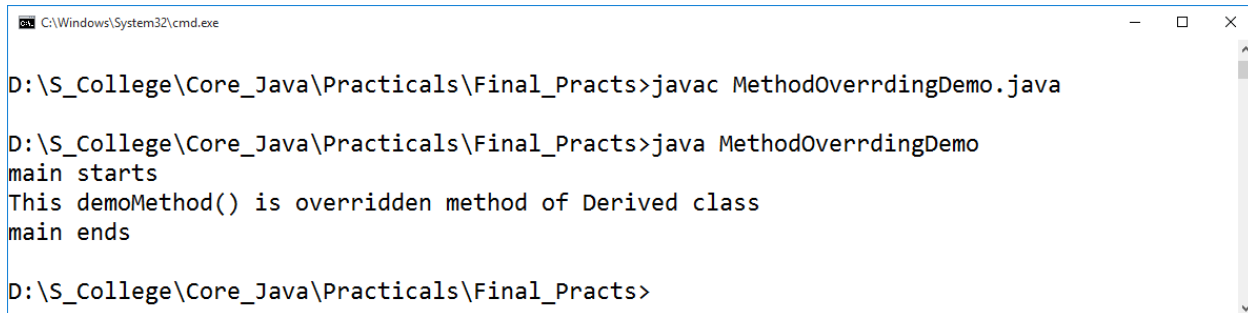


**PRACTIAL NO.5 (B)**

**AIM:** Write java program to implement method overriding.

**SOURCE CODE:**

```
class Base
{
    public void demoMethod()
    {
        System.out.println("this demomethod() method of Base Class");
    }
}
class Derived extends Base
{
    public void demoMethod()
    {
        System.out.println("This demoMethod() is overridden method of Derived
class");
    }
}
class MethodOverrrdingDemo
{
    public static void main(String args[])
    {
        System.out.println("main starts");
        Derived d=new Derived();
        d.demoMethod();
        System.out.println("main ends");
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe

D:\S_College\Core_Java\Practicals\Final_Practs>javac MethodOverrrdingDemo.java

D:\S_College\Core_Java\Practicals\Final_Practs>java MethodOverrrdingDemo
main starts
This demoMethod() is overridden method of Derived class
main ends

D:\S_College\Core_Java\Practicals\Final_Practs>
```

**PRACTIAL NO.6 (A)**

**AIM:** Write a java program to add two matrices and print the resultant matrix.

**SOURCE CODE:**

```
import java.util.*;
import java.io.*;

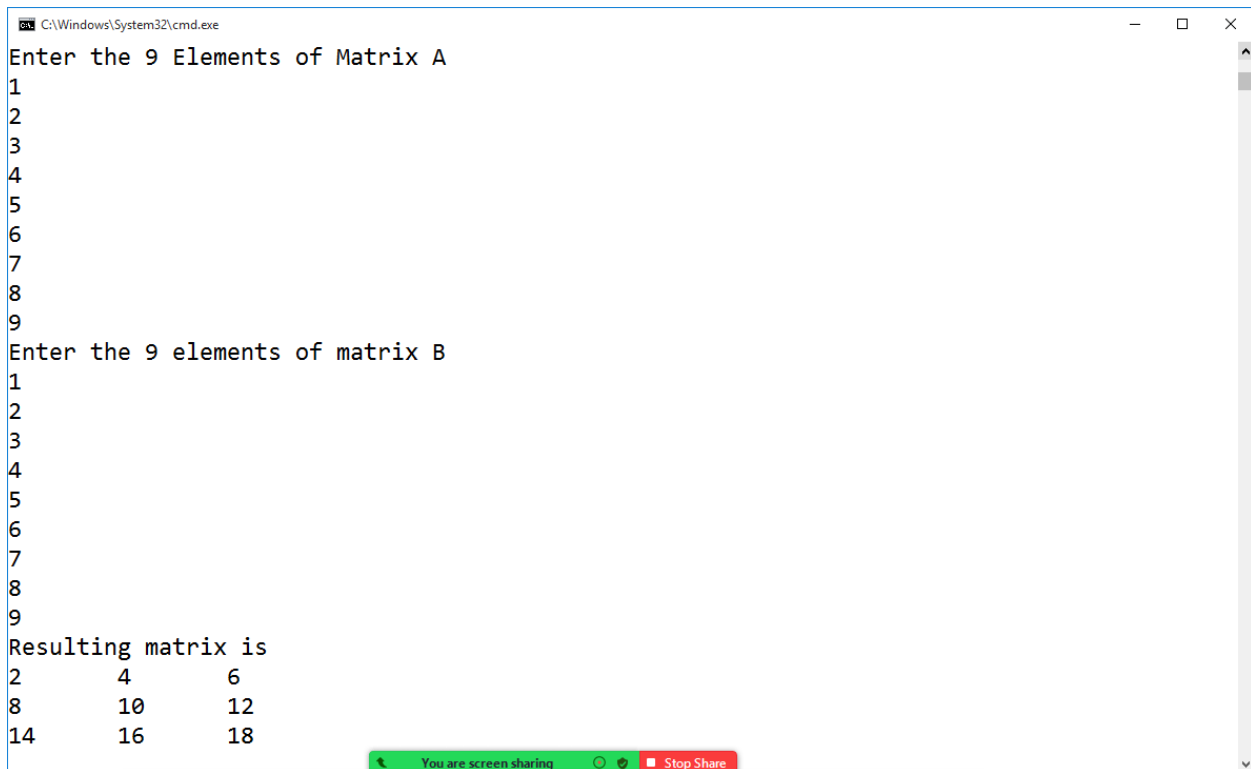
class AddMatrix
{
    public static void main(String args[])throws IOException
    {
        int a[][]=new int[3][3];
        int b[][]=new int[3][3];
        int c[][]=new int[3][3];
        int i,j;
        //Scanner sc=new Scanner(System.in);
        DataInputStream dis=new DataInputStream(System.in);
        System.out.println("Enter the 9 Elements of Matrix A");
        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            {
                //System.out.println("\nEnter the Elements of Matrix")
                a[i][j]=Integer.parseInt(dis.readLine());
                //sc.nextInt();
            }
        }
        System.out.println("Enter the 9 elements of matrix B");
        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            {
                b[i][j]=Integer.parseInt(dis.readLine());
                //sc.nextInt
            }
        }
        //Performing Addition two matrices
        for(i=0;i<3;i++)// row
        {
            for(j=0;j<3;j++)//column
            {
```

---

```
        c[i][j]=a[i][j]+b[i][j];
    }
}

System.out.println("Resulting matrix is");

    for(i=0;i<3;i++)
    {
        for(j=0;j<3;j++)
        {
            System.out.print(c[i][j]+" ");
        }
        System.out.println();
    }
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe
Enter the 9 Elements of Matrix A
1
2
3
4
5
6
7
8
9
Enter the 9 elements of matrix B
1
2
3
4
5
6
7
8
9
Resulting matrix is
2      4      6
8      10     12
14     16     18
```

You are screen sharing [Stop Share]

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**PRACTIAL NO.6 (B)**

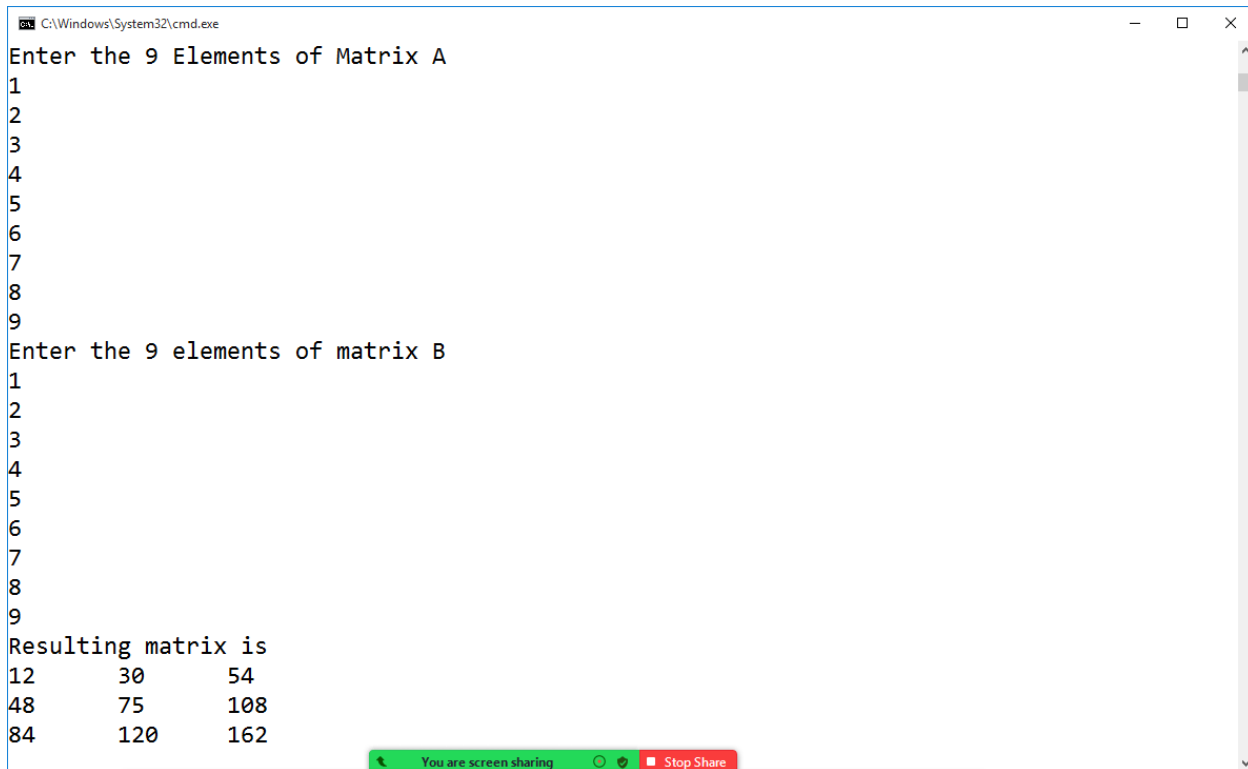
**AIM:** Write a java program to multiply two matrices and print the resultant matrix.

**SOURCE CODE:**

```
import java.util.*;
import java.io.*;
class MatrixMultiplication
{
    public static void main(String args[])throws IOException
    {
        int a[][]=new int[3][3];
        int b[][]=new int[3][3];
        int c[][]=new int[3][3];
        int i,j,k,s;
        //Scanner sc=new Scanner(System.in);
        DataInputStream dis=new DataInputStream(System.in);
        System.out.println("Enter the 9 Elements of Matrix A");
        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            {
                //System.out.println("\nEnter the Elements of Matrix")
                a[i][j]=Integer.parseInt(dis.readLine());
                //sc.nextInt();
            }
        }
        System.out.println("Enter the 9 elements of matrix B");
        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            {
                b[i][j]=Integer.parseInt(dis.readLine());
                //sc.nextInt
            }
        }
        //Performing Multiplication two matrices
        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            {
```

---

```
        s=0;
        for(k=0;k<3;k++)
        {
            s=s+(a[i][j]*b[k][j]);
        }
        c[i][j]=s;
    }
}
System.out.println("Resulting matrix is");
for(i=0;i<3;i++)
{
    for(j=0;j<3;j++)
    {
        System.out.print(c[i][j]+" ");
    }
    System.out.println();
}
}
```

**OUTPUT:**

```
C:\Windows\System32\cmd.exe
Enter the 9 Elements of Matrix A
1
2
3
4
5
6
7
8
9
Enter the 9 elements of matrix B
1
2
3
4
5
6
7
8
9
Resulting matrix is
12      30      54
48      75      108
84      120     162
```

You are screen sharing [Stop Share]



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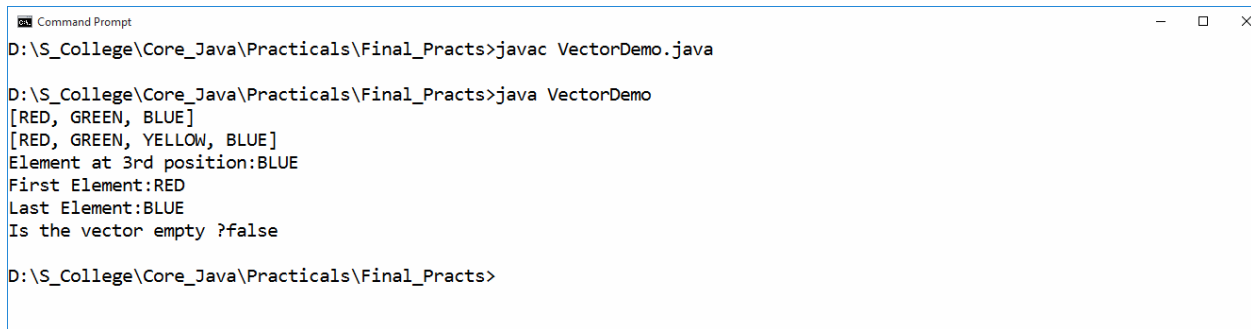
**PRACTIAL NO.7 (A)**

**AIM:** Write a java program to implement a vector.

**SOURCE CODE:**

```
import java.util.Vector;

public class VectorDemo
{
    public static void main(String args[])
    {
        Vector<String> v=new Vector<String>();
        v.add("RED");
        v.add("GREEN");
        v.add("BLUE");
        System.out.println(v);
        //adding element at specific index
        v.add(2,"YELLOW");
        System.out.println(v);
        //Getting elements by index
        System.out.println("Element at 3rd position:"+v.get(3));
        //Getting first element
        System.out.println("First Element:"+v.firstElement());
        //Getting last element
        System.out.println("Last Element:"+v.lastElement());
        //How to check Vector is empty or not
        System.out.println("Is the vector empty ?"+v.isEmpty());
    }
}
```

**OUTPUT:**

```
Command Prompt
D:\S_College\Core_Java\Practicals\Final_Practs>javac VectorDemo.java

D:\S_College\Core_Java\Practicals\Final_Practs>java VectorDemo
[RED, GREEN, BLUE]
[RED, GREEN, YELLOW, BLUE]
Element at 3rd position:BLUE
First Element:RED
Last Element:BLUE
Is the vector empty ?false

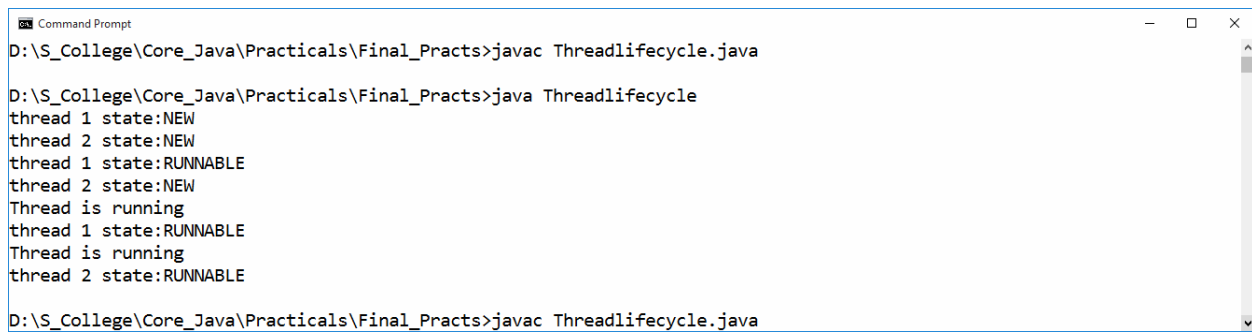
D:\S_College\Core_Java\Practicals\Final_Practs>
```

**PRACTIAL NO.7 (B)**

**AIM:** Write a java program to implement thread life cycle.

**SOURCE CODE:**

```
import java.io.*;
public class Threadlifecycle extends Thread
{
    public void run()
    {
        System.out.println("Thread is running");
    }
    public static void main(String[] args)
    {
        Threadlifecycle t1=new Threadlifecycle();
        Threadlifecycle t2=new Threadlifecycle();
        System.out.println("thread 1 state:"+t1.getState());
        System.out.println("thread 2 state:"+t2.getState());
        t1.start();
        System.out.println("thread 1 state:"+t1.getState());
        System.out.println("thread 2 state:"+t2.getState());
        t2.start();
        System.out.println("thread 1 state:"+t1.getState());
        System.out.println("thread 2 state:"+t2.getState());
    }
}
```

**OUTPUT:**

```
Command Prompt
D:\S_College\Core_Java\Practicals\Final_Practs>javac Threadlifecycle.java

D:\S_College\Core_Java\Practicals\Final_Practs>java Threadlifecycle
thread 1 state:NEW
thread 2 state:NEW
thread 1 state:RUNNABLE
thread 2 state:NEW
Thread is running
thread 1 state:RUNNABLE
Thread is running
thread 2 state:RUNNABLE

D:\S_College\Core_Java\Practicals\Final_Practs>javac Threadlifecycle.java
```

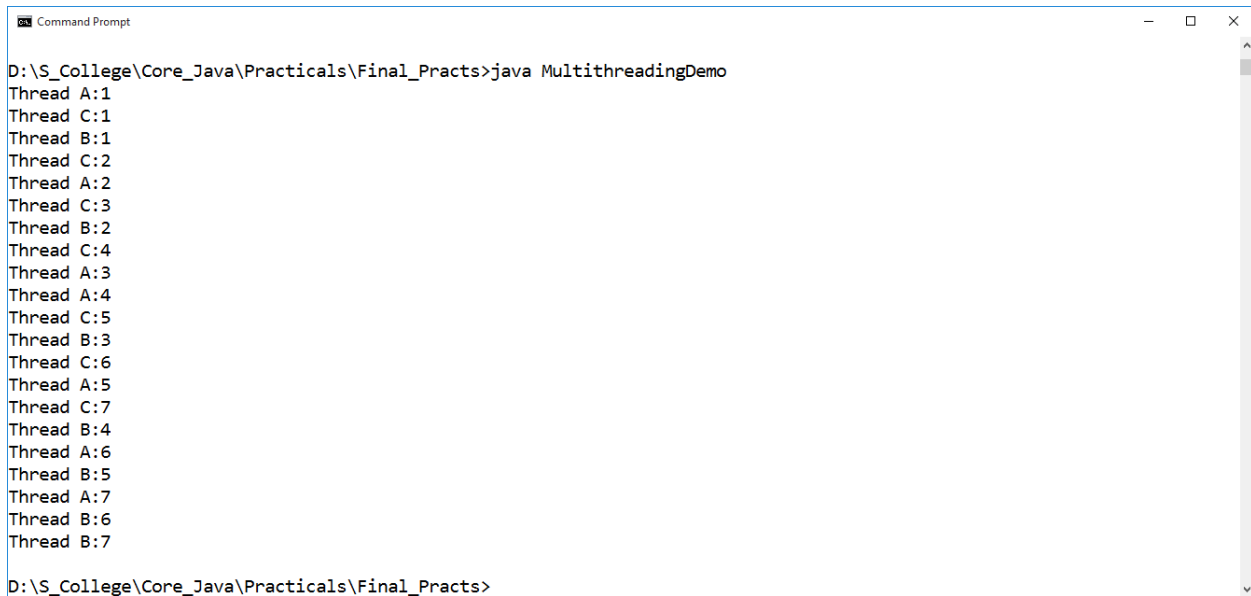
**PRACTIAL NO.7 (C)**

**AIM:** Write java program to implement multiple thread.

**SOURCE CODE:**

```
import java.io.*;
class A extends Thread
{
    public void run()
    {
        for(int i=1;i<=7;i++)
        {
            System.out.println("Thread A:"+i);
        }
    }
}
class B extends Thread
{
    public void run()
    {
        for(int i=1;i<=7;i++)
        {
            System.out.println("Thread B:"+i);
        }
    }
}
class C extends Thread
{
    public void run()
    {
        for(int i=1;i<=7;i++)
        {
            System.out.println("Thread C:"+i);
        }
    }
}
class multithreading
{
    public static void main(String args[])
    {
        A a=new A();
        a.start();
```

```
        B b=new B();  
        b.start();  
        C c=new C();  
        c.start();  
    }  
}
```

**OUTPUT:**

```
Command Prompt
D:\S_College\Core_Java\Practicals\Final_Practs>java MultithreadingDemo
Thread A:1
Thread C:1
Thread B:1
Thread C:2
Thread A:2
Thread C:3
Thread B:2
Thread C:4
Thread A:3
Thread A:4
Thread C:5
Thread B:3
Thread C:6
Thread A:5
Thread C:7
Thread B:4
Thread A:6
Thread B:5
Thread A:7
Thread B:6
Thread B:7
D:\S_College\Core_Java\Practicals\Final_Practs>
```

---

**RACTIAL NO.8 (A)**

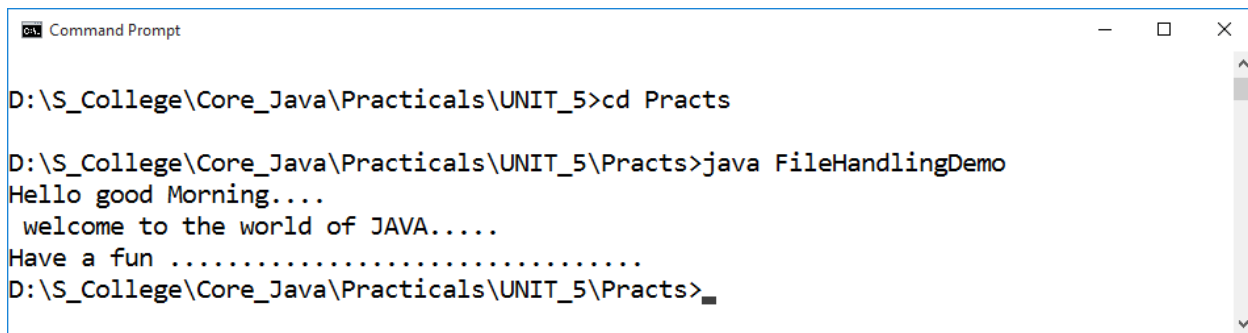
**AIM:** Write java program to open a file and display content in console window.

**SOURCE CODE:**

```
import java.io.*;

public class FileHandlingDemo
{
    public static void main(String[] args)throws IOException
    {
        FileInputStream input=new FileInputStream("file.txt");
        DataInputStream inst=new DataInputStream(input);
        int count=input.available();
        byte[] a=new byte[count];
        inst.read(a);
        for(byte b:a)
        {
            char k=(char)b;
            System.out.print(k);
        }
    }
}
```



**OUTPUT:**

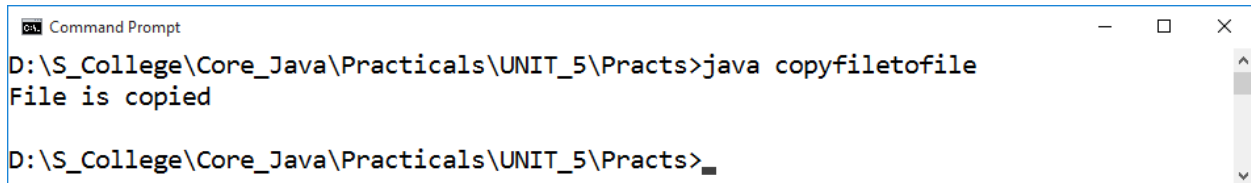
```
Command Prompt
D:\S_College\Core_Java\Practicals\UNIT_5>cd Practs
D:\S_College\Core_Java\Practicals\UNIT_5\Practs>java FileHandlingDemo
Hello good Morning....
welcome to the world of JAVA.....
Have a fun .....
D:\S_College\Core_Java\Practicals\UNIT_5\Practs>
```

**PRACTIAL NO.8 (B)**

**AIM:** Write a java program to copy contents of one file to other file.

**SOURCE CODE:**

```
import java.io.*;
class copyfiletofile
{
    public static void main(String args[])throws IOException
    {
        FileInputStream fread=new FileInputStream("test.txt");
        FileOutputStream fwrite=new FileOutputStream("output.txt");
        System.out.println("File is copied");
        int c;
        while((c=fread.read())!=-1)
        fwrite.write((char)c);
        fread.close();
        fwrite.close();
    }
}
```

**OUTPUT:**

The screenshot shows a Windows Command Prompt window titled "Command Prompt". The current directory is "D:\S\_College\Core\_Java\Practicals\UNIT\_5\Practs". The command "java copyfiletofile" has been executed, and the output "File is copied" is displayed. The prompt is ready for the next command.

```
Command Prompt
D:\S_College\Core_Java\Practicals\UNIT_5\Practs>java copyfiletofile
File is copied
D:\S_College\Core_Java\Practicals\UNIT_5\Practs>
```

**PRACTIAL NO.9 (A)**

**AIM:** Design AWT program to print the factorial for an input value.

**SOURCE CODE:**

```
import java.awt.*;
import java.awt.event.*;

class FactorialGUI extends Frame implements ActionListener
{
    TextField tf1,tf2;
    public FactorialGUI()
    {
        setLayout(new FlowLayout());

        Label lb1=new Label("enter a number:");
        Label lb2=new Label("Factorial is:");

        tf1=new TextField(15);
        tf2=new TextField(15);

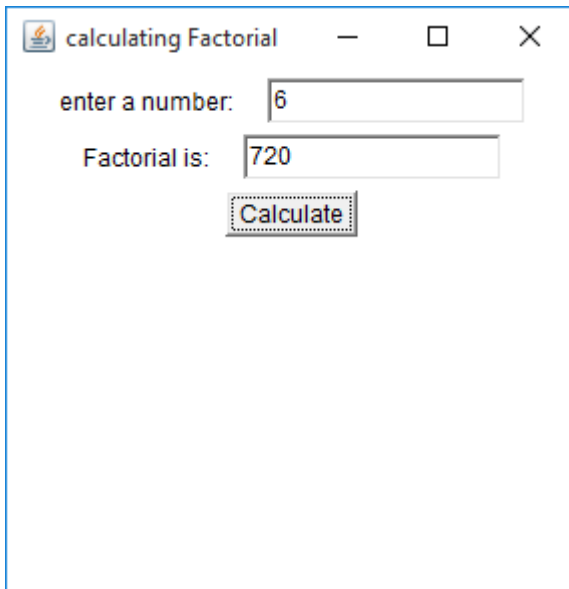
        Button btn1=new Button("Calculate");

        add(lb1);add(tf1);
        add(lb2);add(tf2);
        add(btn1);

        btn1.addActionListener(this);
    }
    public static void main(String ar[])
    {
        FactorialGUI fr=new FactorialGUI();
        fr.setSize(300,300);
        fr.setTitle("calculating Factorial");
        fr.setVisible(true);
    }

    public void actionPerformed(ActionEvent ae)
    {
        int n,f=1,i;
```

```
n=Integer.parseInt(tf1.getText());  
    for(i=1;i<=n;i++)  
    {  
        f=f*i;  
    }  
    tf2.setText(""+f);}}
```

**OUTPUT:**

A screenshot of a Java Swing window titled "calculating Factorial". The window contains two text input fields and a button. The first input field is labeled "enter a number:" and contains the value "6". The second input field is labeled "Factorial is:" and contains the value "720". Below the second input field is a button labeled "Calculate".

