

ASSIGNMENT-3

- ① write a java program to get inputs for multiplying two matrices and display the Result:-

```
import java.util.Scanner;
```

```
public class matrixmultiplication {
```

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

```
        int n;
```

```
        Scanner input = new Scanner (System.in);
```

```
        System.out.println ("Enter the base of squared  
                             matrices");
```

```
        n = input.nextInt();
```

```
        int[][] a = new int[n][n];
```

```
        int[][] b = new int[n][n];
```

```
        int[][] c = new int[n][n];
```

```
        System.out.println ("Enter the elements of 1st  
                             matrix row wise");
```

```
        for (int i=0; i<n; i++)
```

```
        {
```

```
            for (int j=0; j<n; j++)
```

```
            {
```

```
                a[i][j] = input.nextInt();
```



}

}

System.out.println("Enter the elements of 2nd matrix  
row wise");

for (int i=0; i<n; i++)

{

for (int j=0; j<n; j++)

{

b[i][j] = input.nextInt();

}

}

System.out.println("multiplying the matrices");

for (int i=0; i<n; i++)

{

for (int j=0; j<n; j++)

{

for (k=0; k<n; k++)

{

c[i][j] = c[i][j] + a[i][k] \* b[k][j];

}

}

}

System.out.println("The product is:");

for (int i=0; i<n; i++)

{



```

for (int j=0; j<n; j++)
{
    system.out.print (c[i][j] + " ");
}
system.out.println ();
}
input.close();
}
}

```

- ② Find factorial of numbers with integers square root from 1 to 356.

```

import java.math.BigInteger;

public class factorialwithsquareRoot {
    public static void main (String [] args)
    {
        int n = 356;
        BigInteger factorial = BigInteger.ONE;
        for (int i=1; i<=n; i++) {
            BigInteger squareRoot = BigInteger.valueOf(i).longValue();

```



```

        math.sqrt(i));
    factorial = factorial.multiply (square root);
}
system.out.println ("Factorial with square root
of integers from 1 to "+n" is:");
system.out.println (factorial);
}
}

```

③ Reverse a string and find it is a palindrome?

```

public class stringpalindrome {
    public static void main (String[] args) {
        String myString = "anna";
        StringBuffer buffer = new StringBuffer (myString);
        buffer.reverse();
        String data = buffer.toString();
        if (myString.equals(data)) {
            system.out.println ("Given string is palindrome");
        } else {
            system.out.println ("Given string is not palindrome");
        }
    }
}

```