

Class Test - 4

1) Hollow block Matrix Program Java:-

```

Public class HollowBlockMatrix
{
    Public static void main (String[] args)
    {
        int rows = 5;
        int cols = 5;

        for (int i = 1; i <= rows; i++) {
            for (int j = 1; j <= cols; j++) {
                if (i == 1 || i == rows || j == 1 || j == cols) {
                    System.out.print("*");
                }
                else {
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}

```

2) Factorial of n Prime Numbers:-

```

import java.util.*;

Public class factorial of Prime {
    Public static void main (String[] args) {
        int n = 5;
        ArrayList<Integer> Prime numbers = new ArrayList<>();

        int num = 2;
        while (PrimeNumbers.size() < n) {
            if (isPrime(num)) {
                PrimeNumbers.add(num);
            }
            num++;
        }
        for (int Prim : Prime numbers) {
            long factorial = calculate factorial (Prime);

            System.out.println ("Factorial of " + Prime + " is " +
                                factorial);
        }
    }

    Public static boolean isPrime (int num) {
        if (num <= 1) {

```

```
return false;
```

```
}
```

```
for (int i=2; i <= Math.sqrt(num); i++) {
```

```
    if (num % i == 0) {
```

```
        return false;
```

```
    }
```

```
}
```

```
return true;
```

```
}
```

```
public static long calculate {
```

```
    if (num == 0 || num == 1) {
```

```
        return 1;
```

```
}
```

```
    long factorial = 1;
```

```
    for (int i=2; i <= num; i++) {
```

```
        factorial *= i;
```

```
}
```

```
    return factorial;
```

```
}
```

```
}
```