

Output :-Alphabet Pattern

```
Microsoft Windows [Version 10.0.22631.4169]
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C:\Users\SAGAR KHADE>cd C:\jdk-19\bin\Sagar

C:\jdk-19\bin\Sagar>javac Alphabet.java

C:\jdk-19\bin\Sagar>java Alphabet
A
A B
A B C
A B C D
A B C D E

C:\jdk-19\bin\Sagar>|
```

## **Aphabet Pattern**

```
public class Alphabet {  
    public static void main(String[] args) {  
        char start = 'A';  
        int rows = 5;  
        for (int i = 0; i < rows; i++) {  
            for (int j = 0; j <= i; j++) {  
                System.out.print((char) (start + j) + " ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Output: Armstrong number

```
C:\jdk-19\bin\Sagar>javac Armstrong.java
```

```
C:\jdk-19\bin\Sagar>java Armstrong
```

```
515 Is not an Amstrong
```

```
C:\jdk-19\bin\Sagar>|
```

## Armstrong Number

```
public class Armstrong{  
    public static void main(String args[])  
    {  
        int number =515;  
        int sum=0;  
        int temp = number;  
        for(;temp>0;temp/=10)  
        {  
            int digit = temp % 10;  
            sum+=digit * digit * digit;  
        }  
        if(number==sum)  
        {  
            System.out.println(number+ " Is a Armstrong Number");  
        }  
        else{  
            System.out.println(number+ " Is not an Armstrong");  
        }  
    }  
}
```

Output:- Factorial Number

```
C:\jdk-19\bin\Sagar>javac Factorial.java
```

```
C:\jdk-19\bin\Sagar>java Factorial
```

```
Factorial of 5 is: 120
```

```
C:\jdk-19\bin\Sagar>|
```

## Factorial Number

```
public class Factorial {  
    public static void main(String[] args) {  
        int number = 5;  
        long factorial = 1;  
        for (int i = 1; i <= number; i++) {  
            factorial *= i;  
        }  
        System.out.println("Factorial of " + number + " is: " + factorial);  
    }  
}
```

## Output :- Palindrome Number

```
C:\jdk-19\bin\Sagar>javac Palindrome.java
```

```
C:\jdk-19\bin\Sagar>java Palindrome
```

```
10 is not a palindrome
```

```
C:\jdk-19\bin\Sagar>|
```

## Palindrome Number

```
public class Palindrome {  
    public static void main(String[] args) {  
        int number = 10;  
        int originalNumber = number;  
        int reverseNumber = 0;  
  
        while (number > 0) {  
            int digit = number % 10;  
            reverseNumber = reverseNumber * 10 + digit;  
            number = number / 10;  
        }  
  
        if (originalNumber == reverseNumber) {  
            System.out.println(originalNumber + " is a palindrome");  
        } else {  
            System.out.println(originalNumber + " is not a palindrome");  
        }  
    }  
}
```



Output :- Largest Number

```
C:\jdk-19\bin\Sagar>javac Largest.java
```

```
C:\jdk-19\bin\Sagar>java largest
```

```
Error: Could not find or load main class largest
```

```
Caused by: java.lang.NoClassDefFoundError: Largest (wrong name: largest)
```

```
C:\jdk-19\bin\Sagar>java Largest
```

```
9 is largest
```

```
C:\jdk-19\bin\Sagar>|
```

## Program For Largest Number

```
public class Largest {  
    public static void main(String[] args) {  
        int num1=9;  
        int num2=6;  
        int num3=8;  
        if(num1>num2&&num1>num3)  
        {  
            System.out.println(num1+ " is largest");  
        }  
        else if(num2>num1&&num2>num3){  
            System.out.println(num2+ " is largest");  
        }  
        else  
        {  
            System.out.println(num3+" is largest");  
        }  
    }  
}
```

## Output:- Swap Numbers

```
C:\jdk-19\bin\Sagar>javac Swap.java
```

```
C:\jdk-19\bin\Sagar>java Swap
```

```
Values Before Swap
```

```
value of num1 is 3
```

```
value of num2 is 4
```

```
Values After Swap
```

```
value of num1 is 4
```

```
value of num2 is 3
```

```
C:\jdk-19\bin\Sagar>|
```

## Program For Swap Numbers

```
public class Swap{  
    public static void main(String[] args) {  
        int num1=3;  
        int num2=4;  
        int temp;  
        System.out.println("value of num1 is" + num1);  
        System.out.println("value of num2 is" + num2);  
        temp= num1;  
        num1= num2;  
        num2=temp;  
        System.out.println("value of num1 is" + num1);  
        System.out.println("value of num2 is" + num2);  
    }  
}
```