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## Experiment 4: Programs based on Command-line arguments

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### Theory :

**Command Line Argument in Java** is the information that is passed to the program when it is executed. The information passed is stored in the string array passed to the main() method and it is stored as a string. It is the information that directly follows the program's name on the command line when it is running.

There is no restriction on the number of java command line arguments. You can specify any number of arguments

These are captured into the String args of main method ie.

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

To access the data we pass the index of that data to args[index], the datatype of arguments is string by default,

However to get an int we can use :

```
Integer.parseInt(args[index])
```

**A.**

**Aim :** WAP to accept student's details via command line and display on the screen.

**Program :**

```
public class nameRollnoBycmd {  
    public static void main(String[] args) {  
        System.out.println("Name : "+ args[0]+ "+"+ args[1]);  
        System.out.println("Roll no : "+ args[2]);  
    }  
}
```

**Output :**

```
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> java nameRollnoBycmd.java Idris Ratlamwala 2003145  
Name : Idris Ratlamwala  
Roll no : 2003145  
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> java nameRollnoBycmd.java Priyansh Salian 2003147  
Name : Priyansh Salian  
Roll no : 2003147  
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> █
```

**B.**

**Aim :** WAP to add two numbers accepted via command line.

**Program :**

```
public class addnumBycmd {  
    public static void main(String[] args) {  
        int sum = Integer.parseInt(args[1]) + Integer.parseInt(args[0]);  
        System.out.println("Sum = "+sum);  
    }  
}
```

**Output :**

```
PS C:\Users\IsmailRatlamwala\Documents\College prog\Ops Labs\expt3> java addnumBycmd.java 8 20  
Sum = 28  
PS C:\Users\IsmailRatlamwala\Documents\College prog\Ops Labs\expt3> java addnumBycmd.java 69 1  
Sum = 70  
PS C:\Users\IsmailRatlamwala\Documents\College prog\Ops Labs\expt3> |
```

C.

**Aim :** WAP to calculate minimum and maximum of three numbers accepted via Command line.

**Program :**

```
public class maxOf3Bycmd {
    public static void main(String[] args) {

        int[] n = new int[3];
        int max,min;

        for(int i=0;i<3;i++){
            n[i]= Integer.parseInt(args[i]);
        }
        max= min= n[0];

        for (int i : n) {
            max =(i>max) ? i : max ;
            min =(i<min) ? i : min ;
        }
        System.out.println(max +" is largest \n"+min +" is smallest");

    }
}
```

**Output :**

```
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> java maxOf3Bycmd.java 210 20 3320
3320 is largest
20 is smallest
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> java maxOf3Bycmd.java 210 520 30
520 is largest
30 is smallest
PS C:\Users\IsmailRatlamwala\Documents\College prog\Oops Labs\expt3> █
```