

PROGRAM 1

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

        int large, i;

        int a[] = new int[]{1, 2, 3, 4, 5};

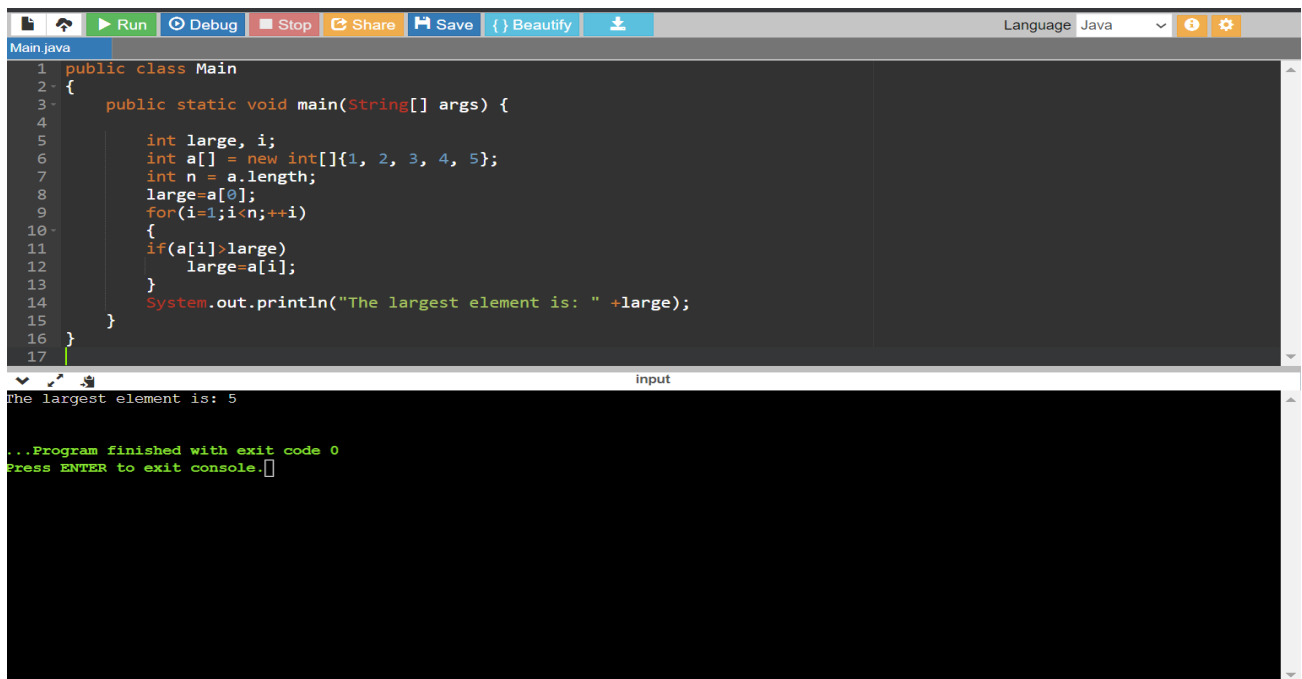
        int n = a.length;

        large=a[0];

        for(i=1;i<n;++i)
        {
            if(a[i]>large)

                large=a[i];
        }

        System.out.println("The largest element is: " +large);
    }
}
```



The screenshot shows a Java IDE with the following components:

- Toolbar:** Run, Debug, Stop, Share, Save, Beautify, and a download icon.
- Language:** Java
- Editor:** Displays the code for `Main.java`. The code is as follows:

```
1 public class Main
2 {
3     public static void main(String[] args) {
4
5         int large, i;
6         int a[] = new int[]{1, 2, 3, 4, 5};
7         int n = a.length;
8         large=a[0];
9         for(i=1;i<n;++i)
10        {
11            if(a[i]>large)
12                large=a[i];
13        }
14        System.out.println("The largest element is: " +large);
15    }
16 }
17
```
- Console:** Shows the output of the program:

```
The largest element is: 5

...Program finished with exit code 0
Press ENTER to exit console.
```

PROGRAM 2

```
import java.util.*;

public class Main {

    public static void main(String args[]) {

        Student s1 = new Student(101, "Student1");
        Student s2 = new Student(102, "Student2");
        Student s3 = new Student(103, "Student3");
        Student s4 = new Student(104, "Student4");
        Student s5 = new Student(105, "Student5");

        s1.setMarks();
        s1.display();

        s2.setMarks();
        s2.display();

        s3.setMarks();
        s3.display();

        s4.setMarks();
        s4.display();

        s5.setMarks();
        s5.display();
    }
}

class Student {

    private int reg_no, total;
```

```

private String name;

private int[] marks= new int[5];


public Student(int reg_no,String name){
    this.reg_no=reg_no;
    this.name=name;
}


public void setMarks(){
    Scanner sc = new Scanner (System.in);
    for(int i=0; i<5; i++){
        System.out.print("Enter mark in subject "+(i+1)+" : ");

        marks [i] = sc.nextInt();
        total+=marks[i];
    } }

public void display () {
    System.out.println("Reg_No: "+ reg_no+" Name: "+ name);
    System.out.println("Marks in Subject: ");

    for(int i=0; i<5; i++){
        System.out.println("Subject "+i+": "+ marks[i]);
    }

    System.out.println("Total Marks: "+ total);
    System.out.println("Average marks: "+ (total/5));
    System.out.println();
}
}

```

```
Enter mark in subject 1: 50
Enter mark in subject 2: 40
Enter mark in subject 3: 60
Enter mark in subject 4: 70
Enter mark in subject 5: 80
Reg_No: 101 Name: Student1
Marks in Subject:
Subject 0: 50
Subject 1: 40
Subject 2: 60
Subject 3: 70
Subject 4: 80
Total Marks: 300
Average marks: 60

Enter mark in subject 1: 40
Enter mark in subject 2: 60
Enter mark in subject 3: 70
Enter mark in subject 4: 80
Enter mark in subject 5: 90
Reg_No: 102 Name: Student2
Marks in Subject:
Subject 0: 40
Subject 1: 60
Subject 2: 70
Subject 3: 80
Subject 4: 90
Total Marks: 340
Average marks: 68

Enter mark in subject 1: 60
Enter mark in subject 2: 80
Enter mark in subject 3: 90
Enter mark in subject 4: 70
Enter mark in subject 5: 85
```

```
Enter mark in subject 1: 60
Enter mark in subject 2: 80
Enter mark in subject 3: 90
Enter mark in subject 4: 70
Enter mark in subject 5: 85
Reg_No: 103 Name: Student3
Marks in Subject:
Subject 0: 60
Subject 1: 80
Subject 2: 90
Subject 3: 70
Subject 4: 85
Total Marks: 385
Average marks: 77

Enter mark in subject 1: 40
Enter mark in subject 2: 80
Enter mark in subject 3: 60
Enter mark in subject 4: 45
Enter mark in subject 5: 56
Reg_No: 104 Name: Student4
Marks in Subject:
Subject 0: 40
Subject 1: 80
Subject 2: 60
Subject 3: 45
Subject 4: 56
Total Marks: 281
Average marks: 56

Enter mark in subject 1: 75
Enter mark in subject 2: 85
Enter mark in subject 3: 86
Enter mark in subject 4: 95
Enter mark in subject 5: 99
```

```
Enter mark in subject 1: 75
Enter mark in subject 2: 85
Enter mark in subject 3: 86
Enter mark in subject 4: 95
Enter mark in subject 5: 99
Reg_No: 105 Name: Student5
Marks in Subject:
Subject 0: 75
Subject 1: 85
Subject 2: 86
Subject 3: 95
Subject 4: 99
Total Marks: 440
Average marks: 88
```

```
...Program finished with exit code 0
Press ENTER to exit console.
```

PROGRAM 3

```
public class Main{  
    public static void main(String[] args){  
        Rectangle r1=new Rectangle(2,4,"Red");  
        Rectangle r2=new Rectangle(2,3,"Blue");  
        if  
(r1.get_color().equalsIgnoreCase(r2.get_color())&&r1.find_area().equalsIgnoreCase(r2.find_area())){  
            System.out.println("Matching Rectangle");  
        }else{  
            System.out.println("Non-Matching Rectangle");  
        }  
    }  
}
```

```
class Rectangle{  
    private double width,length,area;  
    private String color;  
  
    public Rectangle(double width, double length, String color){  
        this.width=width;  
        this.length=length;  
        this.color=color;  
    }  
  
    public String get_length(){  
        return String.valueOf(length);  
    }  
}
```

```

public String get_width(){
    return String.valueOf(width);
}

public String get_color(){
    return color;
}

public String find_area(){
    area=length*width;
    return String.valueOf(area);
}
}

```



```

Main.java
1 public class Main{
2     public static void main(String[] args){
3         Rectangle r1=new Rectangle(2,4,"Red");
4         Rectangle r2=new Rectangle(2,3,"Blue");
5         if (r1.get_color().equalsIgnoreCase(r2.get_color())&&r1.find_area().equalsIgnoreCase(r2.find_area())){
6             System.out.println("Matching Rectangle");
7         }else{
8             System.out.println("Non-Matching Rectangle");
9         }
10    }
11 }
12
13 class Rectangle{
14     private double width,length,area;

```

input

Non-Matching Rectangle

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