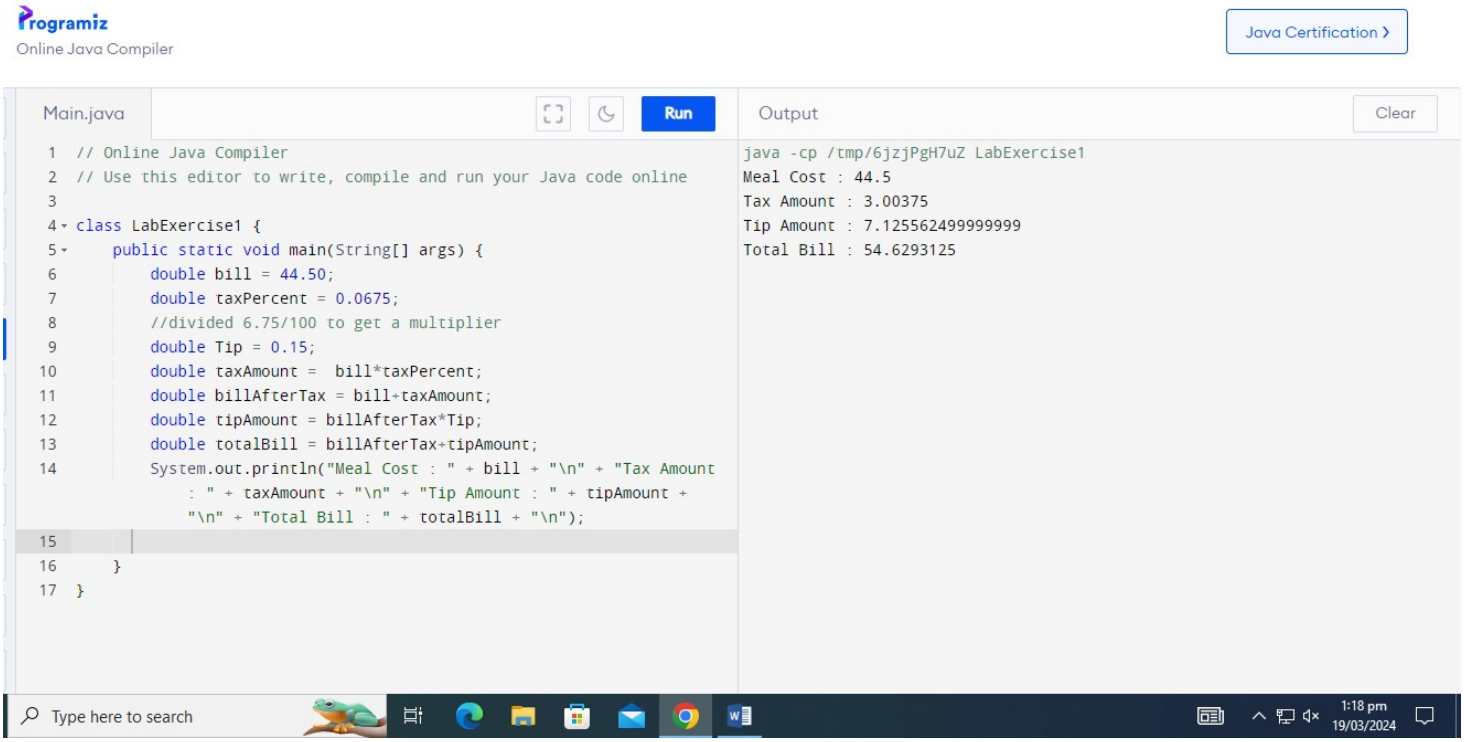
Examples

Lab Exercise 1:

Write a program that computes the tax and tip on a restaurant bill for a patron with a $44.50 meal charge. The tax should be 6.75 percent of the meal cost. The tip should be 15 percent of the total after adding the tax. Display the meal cost, tax amount, tip amount, and total bill on the screen.




```
// Online Java Compiler
// Use this editor to write, compile and run your Java code online
class Bill
{
   double bill = 44.50;
}
class TaxPercent{
   double taxPercent = 0.0675; //divided 6.75/100 to get a multiplier
}
class Tip{
   double tip = 0.15;
}
class TaxAmount{
   Bill b1 = new Bill();
   TaxPercent taxper = new TaxPercent();
   double taxAmount =  b1.bill *taxper.taxPercent;
}
class BillAfterTax{
   Bill b1 = new Bill();
```

```
   TaxAmount tam = new TaxAmount();
   double billAfterTax = b1.bill+tam.taxAmount;
}
class LabExercise1 {
   public static void main(String[] args) {
      Bill bill1 = new Bill();
      TaxPercent taxper = new TaxPercent();
      Tip tip = new Tip();
      TaxAmount t2 = new TaxAmount();
     BillAfterTax bat = new BillAfterTax();


      double tipAmount = bat.billAfterTax*tip.tip;
      double totalBill = bat.billAfterTax+tipAmount;
      System.out.println("Meal Cost : " + bill1.bill + "\n" + "Tax Amount : " + t2.taxAmount + "\n" +
"Tip Amount : " + tipAmount + "\n" + "Total Bill : " + totalBill + "\n");

   }
}
```

Lab Exercise 2:

Write a program, which prints the first 'N' terms of Fibonacci sequence. Take the value of 'N' from user.
Fibonacci Sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, ...

```
// Online Java Compiler
// Use this editor to write, compile and run your Java code online
import java.util.*;
class Num{
   int n;
}
class FibonacciSeries{
   void display(int n)
   {
      int ft = 0, st = 1;
   System.out.println("Fibonacci Series  : \n" );
      for (int i = 1; i <= n; ++i) {
    System.out.print(ft + ", ");
```

```
      int nt = ft + st;
      ft = st;
      st = nt;
    }

    }


}
class LabExercise2 {
    public static void main(String[] args) {
       Scanner sc= new Scanner(System.in);    //System.in is a standard
input stream
    System.out.print("Enter the number till you want fibonacci series-
");
    Num num = new Num();
    num.n = sc.nextInt();
    FibonacciSeries fs = new FibonacciSeries();
    fs.display(num.n);

    }
}
```

Programiz
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Main.java | Run | Output | Clear

```
14        int nt = ft + st;
15        ft = st;
16        st = nt;
17      }
18
19      }
20
21
22  }
23  class LabExercise2 {
24      public static void main(String[] args) {
25          Scanner sc= new Scanner(System.in);    //System.in is a
                standard input stream
26      System.out.print("Enter the number till you want fibonacci
            series- ");
27      Num num = new Num();
28      num.n = sc.nextInt();
29      FibonacciSeries fs = new FibonacciSeries();
30      fs.display(num.n);
31
32      }
33  }
```

```
java -cp /tmp/5jS9IjRiXH LabExercise2
Enter the number till you want fibonacci series- 20
Fibonacci Series  :

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584
    , 4181,
```

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Lab Exercise 3:

Write a function which checks whether array elements are unique or not.

Lab Exercise 4:

Write a program, which receives two matrices, and display the result of addition of two given matrices on console.