SESSION1

PART 1 :

Lab 1 :

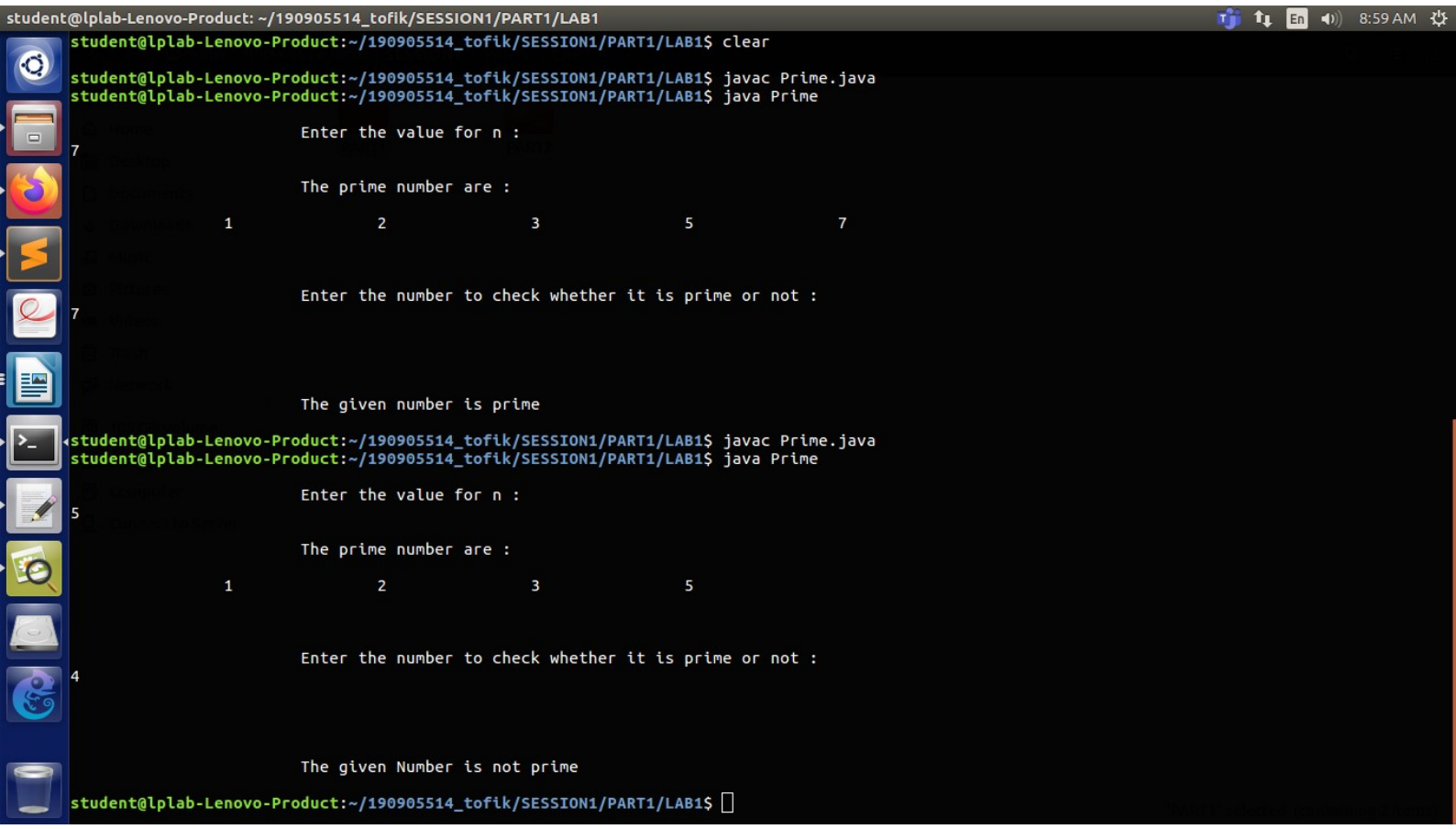
4(a),
4(b):

a. Write a method **isPrime** to accept one integer parameter and to check whether that parameter is prime or not.

b. Using this method, generate first N prime numbers in the main method.

```
import java.util.Scanner;

class Prime {

    public static int isPrime(int a) {

        int f=1;

        for(int c=2; c<a; c++){

            if(a%c==0){

                f=0;

                break;

            }


        }

        if(f==1)return 1;

        else return 0;

    }

    public static void main(String args[]) {

        Scanner scanner = new Scanner(System.in);

        System.out.println("\n\t\t\tEnter the value for n : ");

            int d=scanner.nextInt();
```

```
            System.out.println("\n\t\t\tThe prime number are : \
n");

            for(int c=1; c<=d; c++){

                if(isPrime(c)==1)

                    System.out.print("\t\t"+c);

            }
            System.out.println("\n\n");

        System.out.println("\n\t\t\tEnter the number to check
whether it is prime or not : ");

        int b=scanner.nextInt();

        scanner.nextLine();

        int z=isPrime(b);
         System.out.println("\n\n");

        if(z==1) {

            System.out.println("\n\t\t\tThe given number is
prime \n");

        }else {

            System.out.println("\n\t\t\tThe given Number is not
prime \n");

        }

        }



    }
```



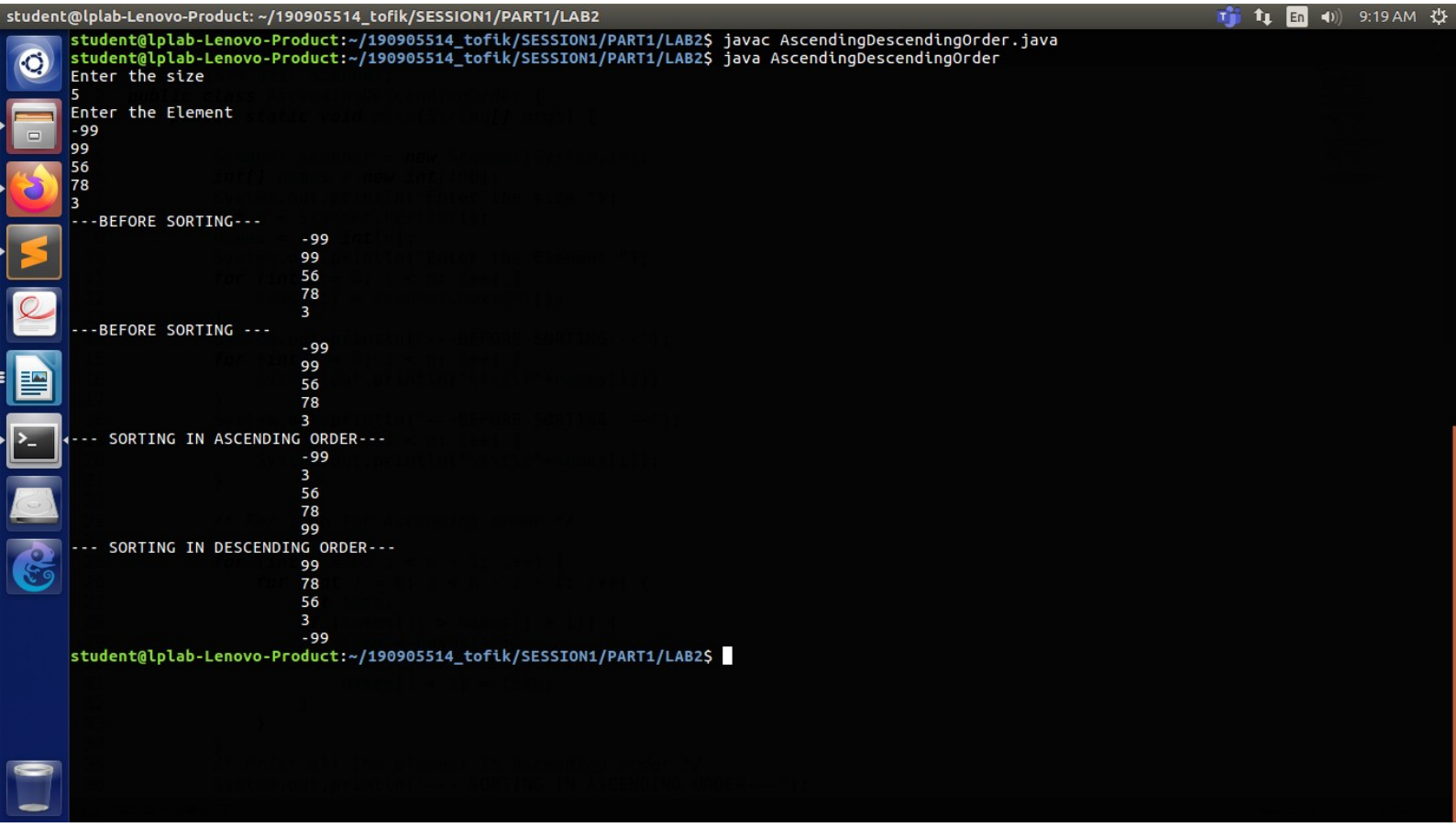
LAB 2 :

1. Arrange the elements in ascending and descending order using Bubble sort method.

1->

```
import java.util.Scanner;
public class AscendingDescendingOrder {
    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        int[] names = new int[100];
        System.out.println("Enter the size ");
        int n = scanner.nextInt();
        names = new int[n];
        System.out.println("Enter the Element ");
        for (int i = 0; i < n; i++) {
            names[i] = scanner.nextInt();
        }
        System.out.println("---BEFORE SORTING---");
        for (int i = 0; i < n; i++) {
            System.out.println("\t\t\t"+names[i]);
        }
```

```
        System.out.println("---BEFORE SORTING ---");
        for (int i = 0; i < n; i++) {
            System.out.println("\t\t\t"+names[i]);
        }

        /* For loop for Ascending order */

        for (int i = 0; i < n - 1; i++) {
            for (int j = 0; j < n - i - 1; j++) {
                int temp;
                if (names[j] > names[j + 1]) {
                    temp = names[j];
                    names[j] = names[j + 1];
                    names[j + 1] = temp;
                }
            }
        }

        System.out.println("--- SORTING IN ASCENDING ORDER---");
        for (int i = 0; i < n; i++) {
            System.out.println("\t\t\t"+names[i]);
        }


        for (int i = 0; i < n - 1; i++) {
            for (int j = 0; j < n - i - 1; j++) {
                int temp;
                if (names[j] < names[j + 1]) {
                    temp = names[j];
                    names[j] = names[j + 1];
                    names[j + 1] = temp;
                }
            }
        }

        System.out.println("--- SORTING IN DESCENDING ORDER---");
        for (int i = 0; i < n; i++) {
            System.out.println("\t\t\t"+names[i]);
        }

    }

}
```



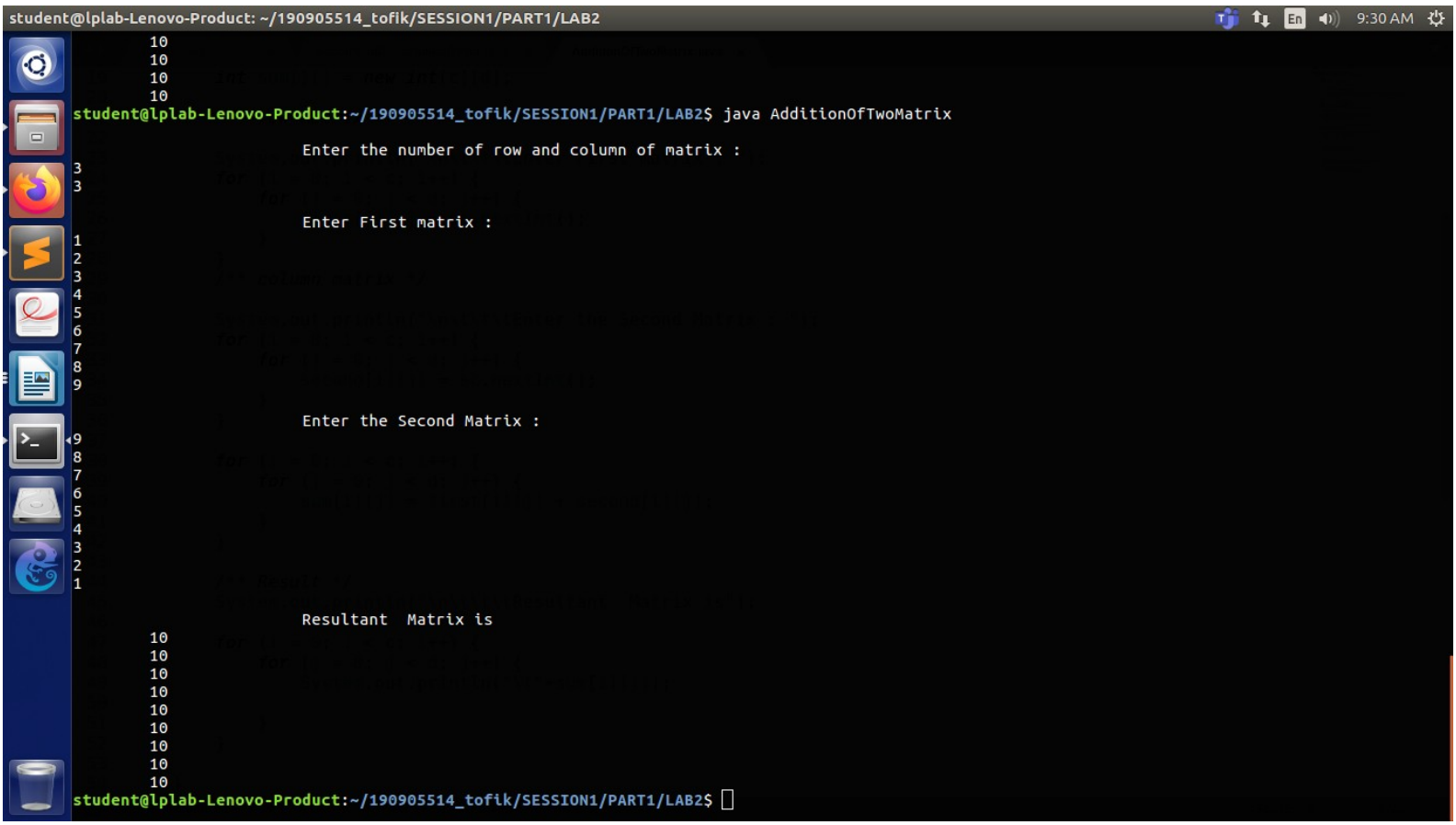
LAB 2 :

2.Find the addition of two matrices and display the resultant matrix.

4->

```
import java.util.Scanner;

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

        int c, d;
        int i, j;

        Scanner sc = new Scanner(System.in);

        /** row and column matrix */

        System.out.println("\n\t\t\tEnter the number of row and
column of matrix :");
        c = sc.nextInt();
        d = sc.nextInt();

        int first[][] = new int[c][d];
        int second[][] = new int[c][d];
```

```
        int sum[][] = new int[c][d];

        /** row matrix */

        System.out.println("\n\t\t\tEnter First matrix : ");
        for (i = 0; i < c; i++) {
            for (j = 0; j < d; j++) {
                first[i][j] = sc.nextInt();
            }
        }
        /** column matrix */

        System.out.println("\n\t\t\tEnter the Second Matrix : ");
        for (i = 0; i < c; i++) {
            for (j = 0; j < d; j++) {
                second[i][j] = sc.nextInt();
            }
        }

        for (i = 0; i < c; i++) {
            for (j = 0; j < d; j++) {
                sum[i][j] = first[i][j] + second[i][j];
            }
        }

        /** Result */
        System.out.println("\n\t\t\tResultant  Matrix is");

        for (i = 0; i < c; i++) {
            for (j = 0; j < d; j++) {
                System.out.println("\t"+sum[i][j]);

            }
        }

    }

}
```


student@lplab-Lenovo-Product: ~/190905514_tofik/SESSION1/PART1/LAB2
En
9:30 AM
10
10
10
10
student@lplab-Lenovo-Product:~/190905514_tofik/SESSION1/PART1/LAB2$ java AdditionOfTwoMatrix
Enter the number of row and column of matrix :
3
3
Enter First matrix :
1
2
3
4
5
6
7
8
9
Enter the Second Matrix :
9
8
7
6
5
4
3
2
1
Resultant Matrix is
10
10
10
10
10
10
10
10
10
student@lplab-Lenovo-Product:~/190905514_tofik/SESSION1/PART1/LAB2$