

**SWT 12031: Practical for Object oriented Program**  
**Department of Information and Communication Technology**  
**Faculty of Technology**

**Java Basics**

---

## **Labsheet 02**

**Reg. Number:** SEU/IS/20/ICT/084

**Academic Year :**2020/2021

**Date:** 2023.01.24

**Practical No :** 02

**Title:** Java Basics

**Aims:**

- **Practice with Java Basics programming Language environment preparation**

**Tasks 01:**

### **Java User Input String**

```
import java.util.Scanner;

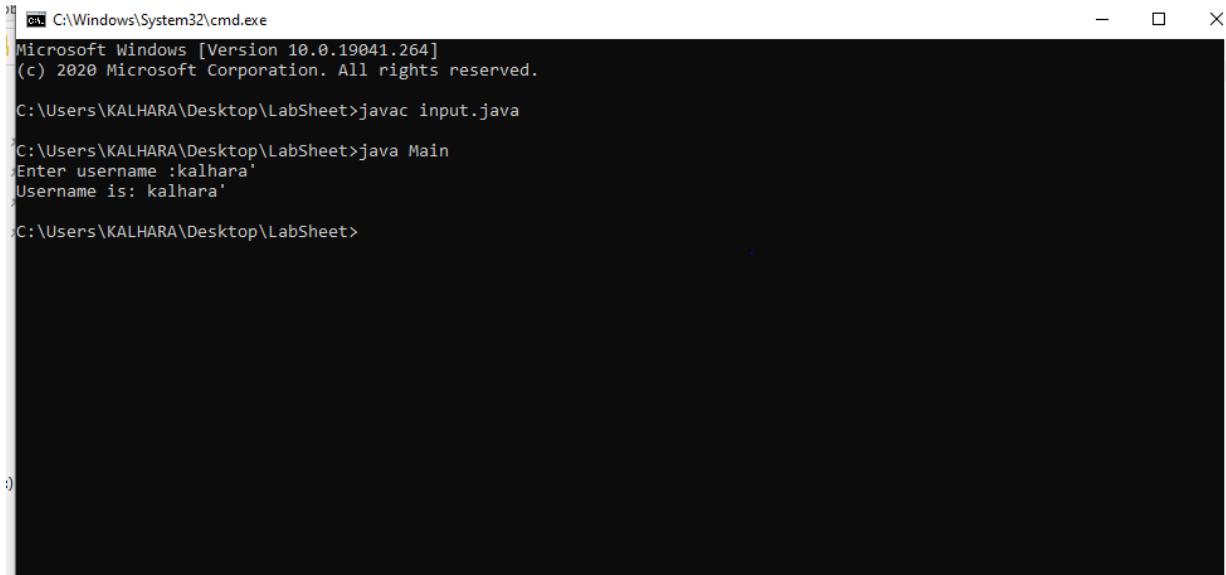
class Main {

    public static void main(String[] args) {
        Scanner myObj = new Scanner(System.in);

        String userName;
        System.out.print("Enter username :");
        userName = myObj.nextLine();
        System.out.println("Username is: " + userName);

    }
}
```

Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19041.264]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\KALHARA\Desktop\LabSheet>javac input.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
Enter username :kalhara'
Username is: kalhara'

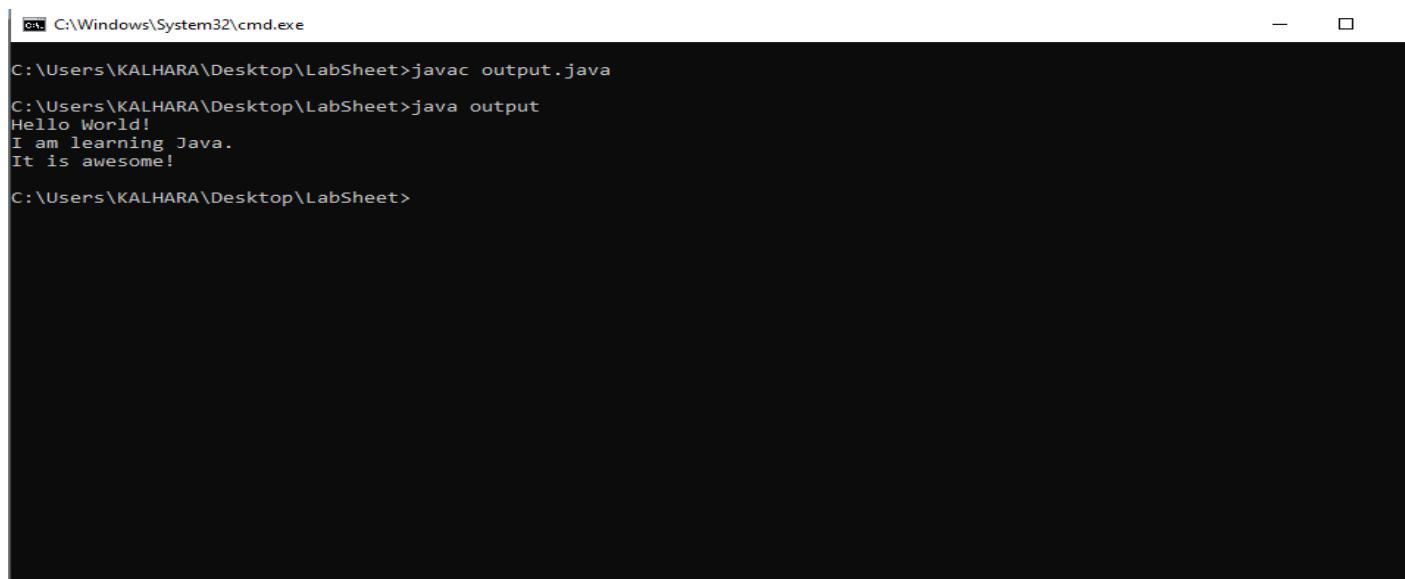
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 02:

### Java Output / Print Text

```
public class output {
    public static void main(String[] args) {
        System.out.println("Hello World!");
        System.out.println("I am learning Java.");
        System.out.println("It is awesome!");
    }
}
```

Output:



```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac output.java
C:\Users\KALHARA\Desktop\LabSheet>java output
Hello World!
I am learning Java.
It is awesome!

C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 03:

### Java Output Numbers

```
public class Main {  
    public static void main(String[] args) {  
        System.out.println(3);  
        System.out.println(358);  
        System.out.println(50000);  
    }  
}
```

Output:



A screenshot of a Windows Command Prompt window titled 'C:\Windows\System32\cmd.exe'. The window shows the following command-line session:

```
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
3  
358  
50000  
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 04:

### Java Comments

#### 01.Single-line Comments

```
public class Main {  
    public static void main(String[] args) {  
        // This is a comment  
        System.out.println("Hello World");// This is a comment  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
Hello World

C:\Users\KALHARA\Desktop\LabSheet>
```

## 02. Java Multi-line Comments

```
public class Main {

    public static void main(String[] args) {
        /* The code below will print the words Hello World
           to the screen, and it is amazing */

        System.out.println("Hello World");
    }
}
```

Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
Hello World

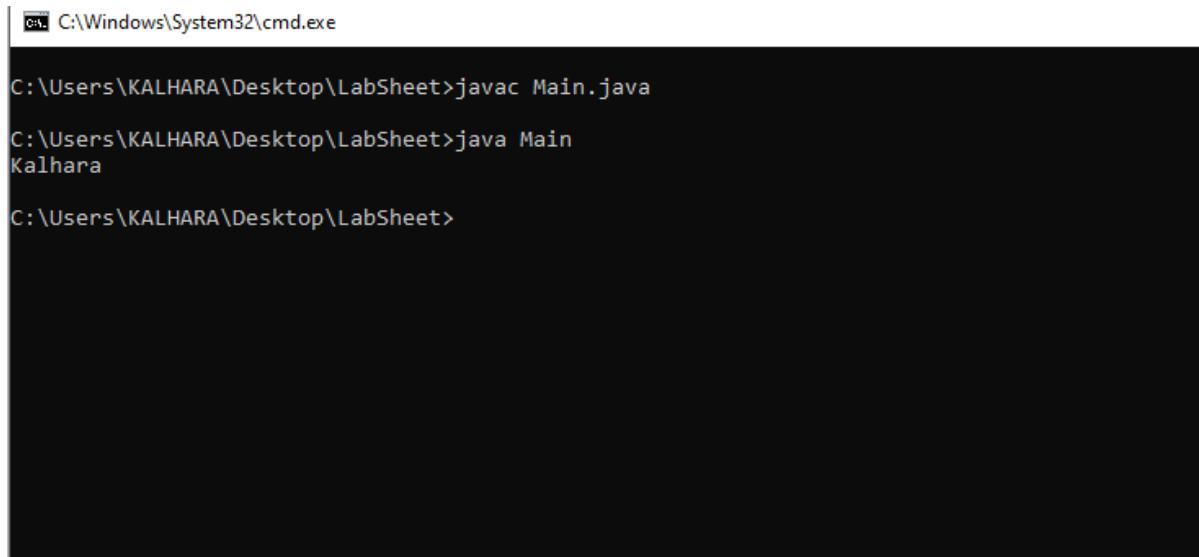
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 05:

### Java Variables String

```
public class Main {  
    public static void main(String[] args) {  
        String name = "John";  
        System.out.println(name);  
    }  
}
```

Output:



The screenshot shows a Windows Command Prompt window titled 'cmd C:\Windows\System32\cmd.exe'. The command 'javac Main.java' is run, followed by 'java Main', which outputs 'Kalhara'.

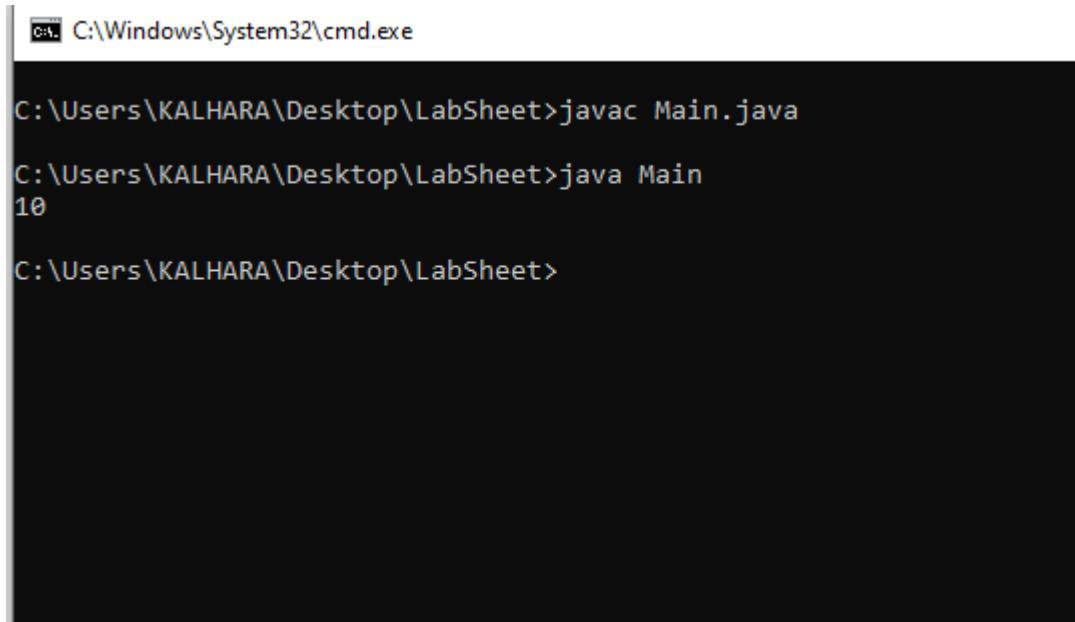
```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Kalhara  
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 06:

### Java Variables Numbers

```
public class Main {  
    public static void main(String[] args) {  
        int myNum;  
        myNum = 10;  
        System.out.println(myNum);  
    }  
}
```

Output:



C:\Windows\System32\cmd.exe

```
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
10
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 07:

### **Java Variables Multiple Numbers**

```
public class Main {
    public static void main(String[] args) {
        int myNum = 15;
        myNum = 20; // myNum is now 20
        System.out.println(myNum);
    }
}
```

Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
20
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 08:

### Display Variables

```
public class Main {
    public static void main(String[] args) {
        String firstName = "John ";
        String lastName = "Doe";
        String fullName = firstName + lastName;
        System.out.println(fullName);
    }
}
```

Output:

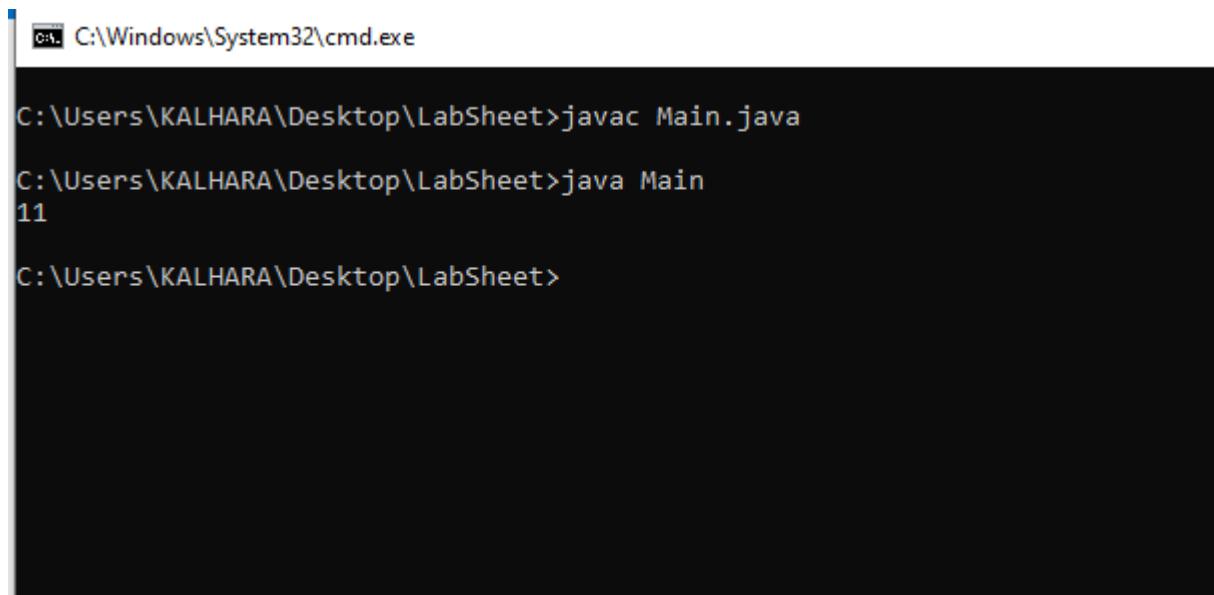
---

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
John Doe
C:\Users\KALHARA\Desktop\LabSheet>
```

```
public class Main {  
    public static void main(String[] args) {  
        int x = 5;  
        int y = 6;  
        System.out.println(x + y);  
    }  
}
```

Output:



A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows the following text:  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
11  
C:\Users\KALHARA\Desktop\LabSheet>

Tasks 09:

### Declare Many Variables

```
public class Main {  
    public static void main(String[] args) {  
        int x = 5, y = 6, z = 50;  
        System.out.println(x + y + z);  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
61

C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 10:

### Boolean Types

```
public class Main {
    public static void main(String[] args) {
        boolean isJavaFun = true;
        boolean isFishTasty = false;
        System.out.println(isJavaFun);
        System.out.println(isFishTasty);
    }
}
```

Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
true
false

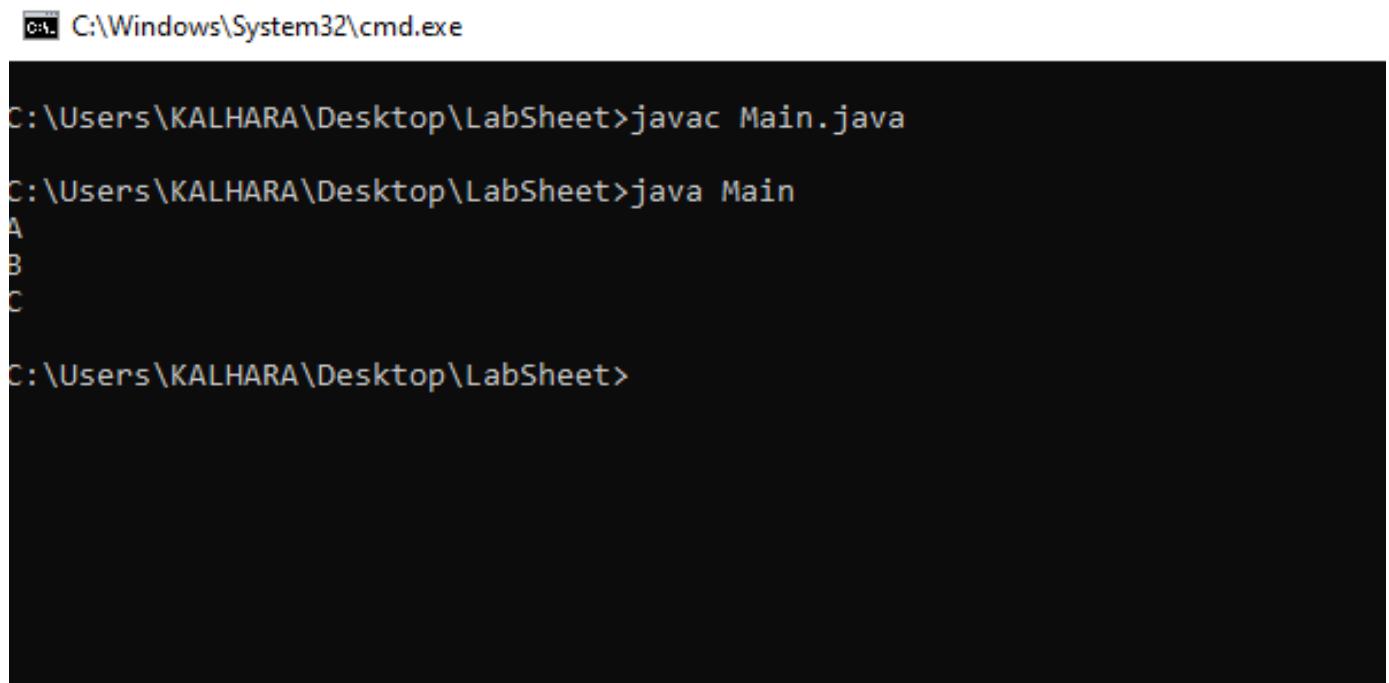
C:\Users\KALHARA\Desktop\LabSheet>
```

**Tasks 11:**

**Java Characters**

```
public class Main {  
    public static void main(String[] args) {  
        char myVar1 = 65, myVar2 = 66, myVar3 = 67;  
        System.out.println(myVar1);  
        System.out.println(myVar2);  
        System.out.println(myVar3);  
    }  
}
```

Output:



The screenshot shows a Windows Command Prompt window with the following text:

```
C:\Windows\System32\cmd.exe  
  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
A  
B  
C  
  
C:\Users\KALHARA\Desktop\LabSheet>
```

## Tasks 12:

### Java Operators

```
public class Main {  
    public static void main(String[] args) {  
        int sum1 = 100 + 50;  
        int sum2 = sum1 + 250;  
        int sum3 = sum2 + sum2;  
        System.out.println(sum1);  
        System.out.println(sum2);  
        System.out.println(sum3);  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
150  
400  
800  
C:\Users\KALHARA\Desktop\LabSheet>
```

### 01.Arithmetic Operators

```
public class Main {  
    public static void main(String[] args) {  
        int x = 5;  
        int y = 3;  
        System.out.println(x * y);  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
15
C:\Users\KALHARA\Desktop\LabSheet>
```

## 02.Comparison Operators

```
public class Main {
    public static void main(String[] args) {
        int x = 5;
        int y = 3;
        System.out.println(x > y); // returns true, because 5 is higher than 3
    }
}
```

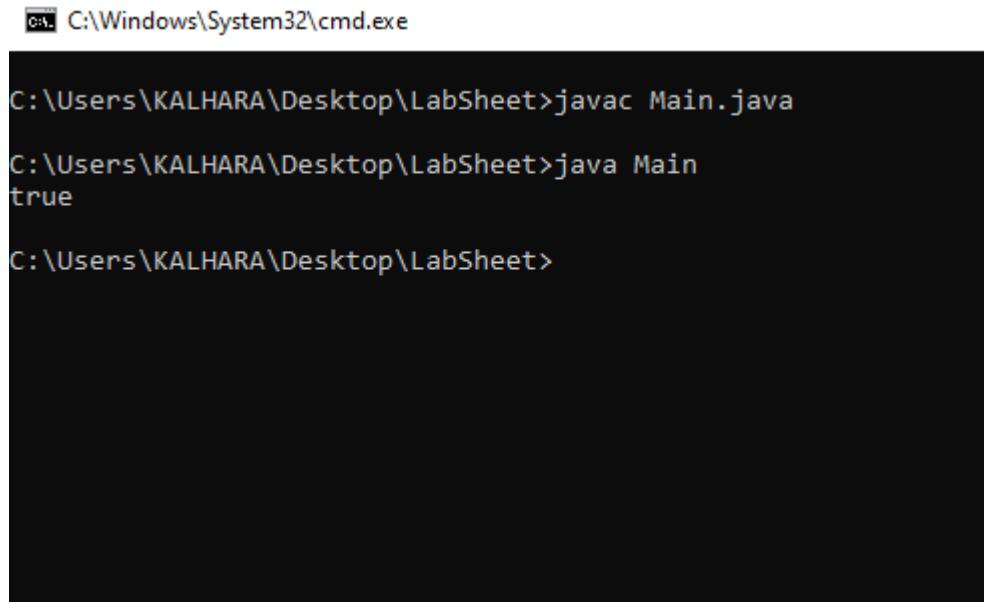
Output:

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
true
C:\Users\KALHARA\Desktop\LabSheet>
```

### 03.Logical Operators

```
public class Main {  
    public static void main(String[] args) {  
        int x = 5;  
        System.out.println(x > 3 && x < 10);  
    }  
}
```

Output:



```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
true  
C:\Users\KALHARA\Desktop\LabSheet>
```

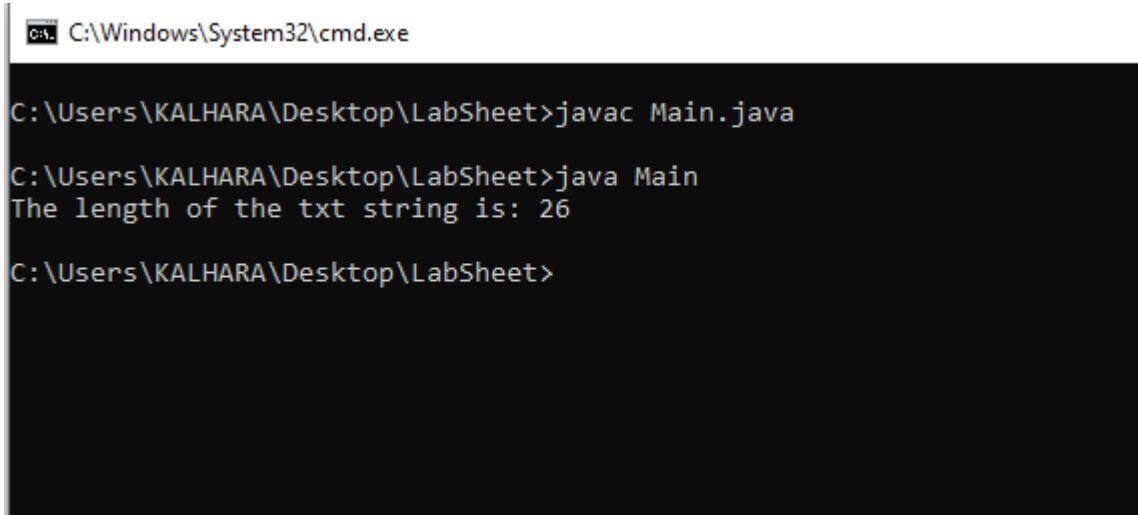
Tasks 13:

### Java Strings

#### 01.String Length

```
public class Main {  
    public static void main(String[] args) {  
        String txt = "ABCDEFGHIJKLMNPQRSTUVWXYZ";  
        System.out.println("The length of the txt string is: " + txt.length());  
    }  
}
```

Output:

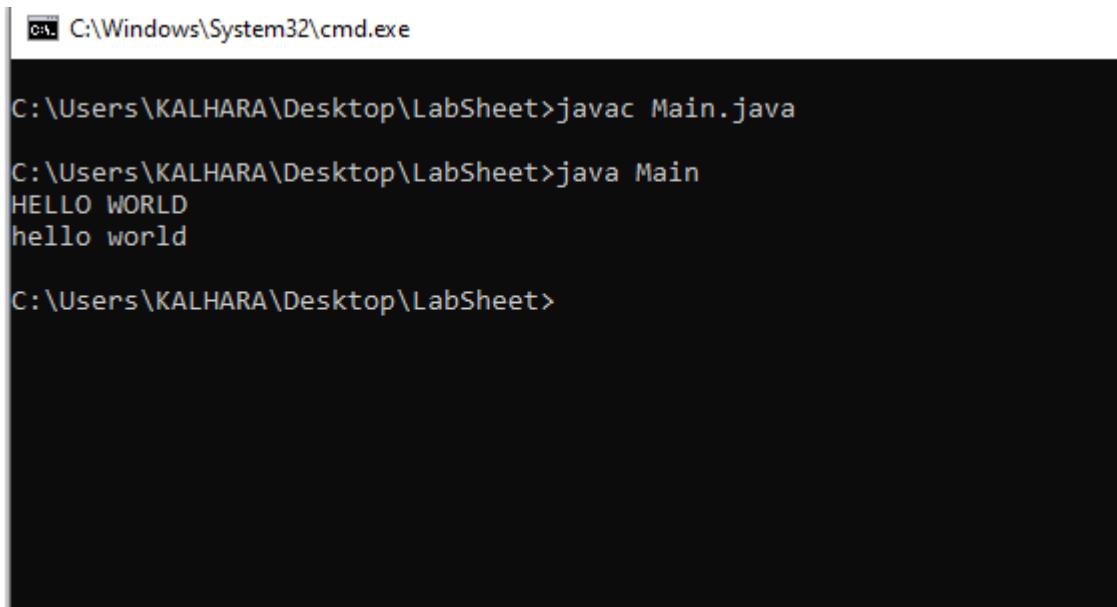


```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
The length of the txt string is: 26
C:\Users\KALHARA\Desktop\LabSheet>
```

## 02.String Methods

```
public class Main {
    public static void main(String[] args) {
        String txt = "Hello World";
        System.out.println(txt.toUpperCase());
        System.out.println(txt.toLowerCase());
    }
}
```

Output:



```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
HELLO WORLD
hello world
C:\Users\KALHARA\Desktop\LabSheet>
```

#### Tasks 14:

##### Java Math

```
public class Main {  
    public static void main(String[] args) {  
        System.out.println(Math.max(5, 10));  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe
```

```
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
10  
C:\Users\KALHARA\Desktop\LabSheet>
```

#### Tasks 15:

##### Java Conditions and If Statements

###### 01.if Statement

```
public class Main {  
    public static void main(String[] args) {  
        int x = 20;  
        int y = 18;  
        if (x > y) {  
            System.out.println("x is greater than y");  
        }  
    }  
}
```

## Output:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19041.264]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
x is greater than y

C:\Users\KALHARA\Desktop\LabSheet>
```

## 02.else Statement

```
public class Main {

    public static void main(String[] args) {
        int time = 20;
        if (time < 18) {
            System.out.println("Good day.");
        }
        else {
            System.out.println("Good evening.");
        }
    }
}
```

## Output:

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
Good evening.

C:\Users\KALHARA\Desktop\LabSheet>
```

### 03.else if Statement

```
public class Main {  
    public static void main(String[] args) {  
        int time = 22;  
        if (time < 10) {  
            System.out.println("Good morning.");  
        }  
        else if (time < 18) {  
            System.out.println("Good day.");  
        }  
        else{  
            System.out.println("Good evening.");  
        }  
    }  
}
```

#### Output:

```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Good evening.  
C:\Users\KALHARA\Desktop\LabSheet>
```

### 03.If...Else

```
public class Main {  
    public static void main(String[] args) {  
        int time = 20;  
        if (time < 18) {  
            System.out.println("Good day.");  
        }  
        else {  
            System.out.println("Good evening.");  
        }  
    }  
}
```

#### Output:

---

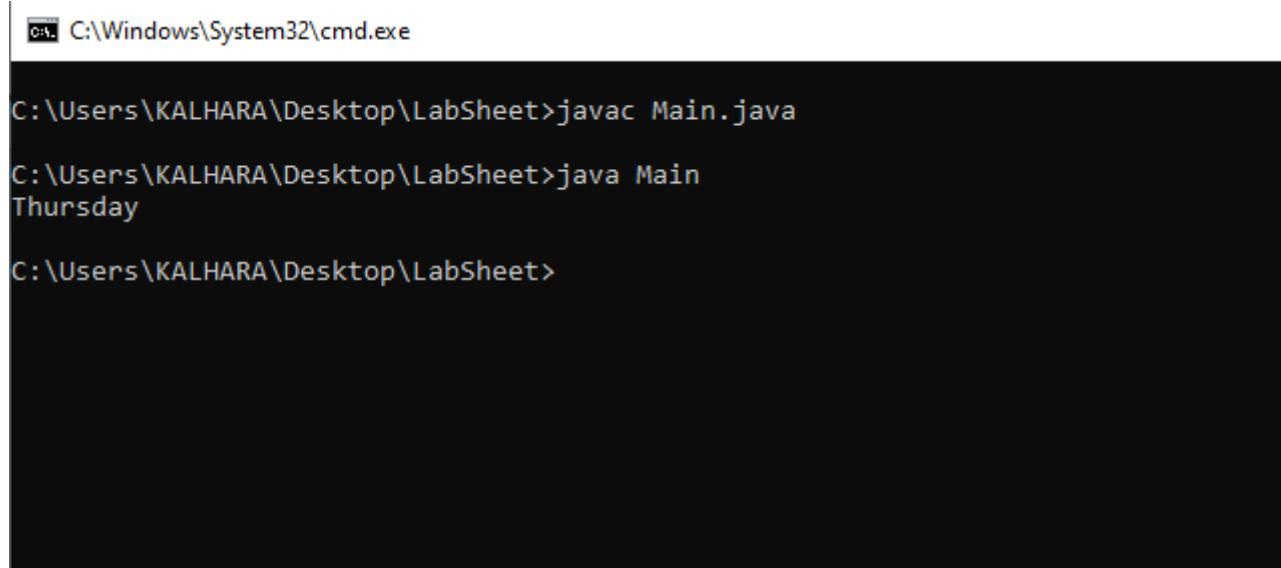
```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Good evening.  
C:\Users\KALHARA\Desktop\LabSheet>
```

## Tasks 16:

### Java Switch Statements

```
public class Main {  
    public static void main(String[] args) {  
        int day = 4;  
        switch (day) {  
            case 1:  
                System.out.println("Monday");  
                break;  
            case 2:  
                System.out.println("Tuesday");  
                break;  
            case 3:  
                System.out.println("Wednesday");  
                break;  
            case 4:  
                System.out.println("Thursday");  
                break;  
            case 7:  
                System.out.println("Sunday");  
                break;  
        }  
    }  
}
```

**Output :**



The screenshot shows a Windows Command Prompt window titled 'cmd C:\Windows\System32\cmd.exe'. The command 'javac Main.java' is entered and executed, followed by the command 'java Main'. The output 'Thursday' is displayed, indicating the correct execution of the Java code.

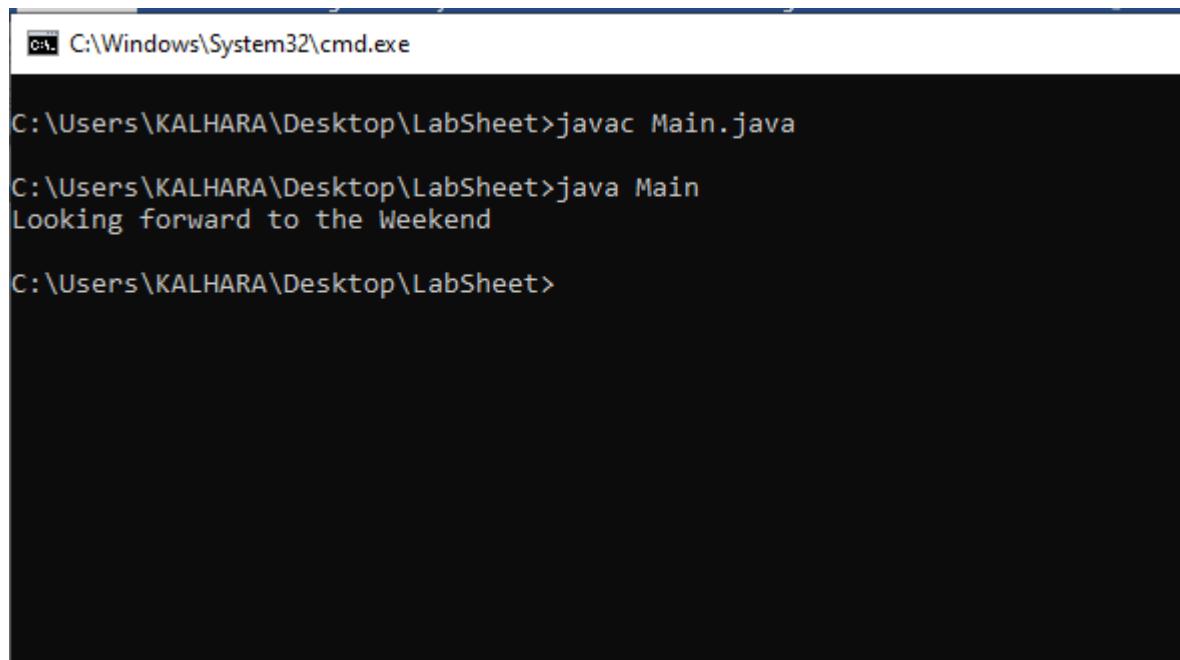
```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Thursday  
C:\Users\KALHARA\Desktop\LabSheet>
```

**Tasks 17:**

**default Keyword**

```
public class Main {  
    public static void main(String[] args) {  
        int day = 4;  
        switch (day) {  
            case 6:  
                System.out.println("Today is Saturday");  
                break;  
            case 7:  
                System.out.println("Today is Sunday");  
                break;  
            default:  
                System.out.println("Looking forward to the Weekend");  
        }  
    }  
}
```

**Output:**



The screenshot shows a Windows Command Prompt window with the following text:

```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Looking forward to the Weekend  
C:\Users\KALHARA\Desktop\LabSheet>
```

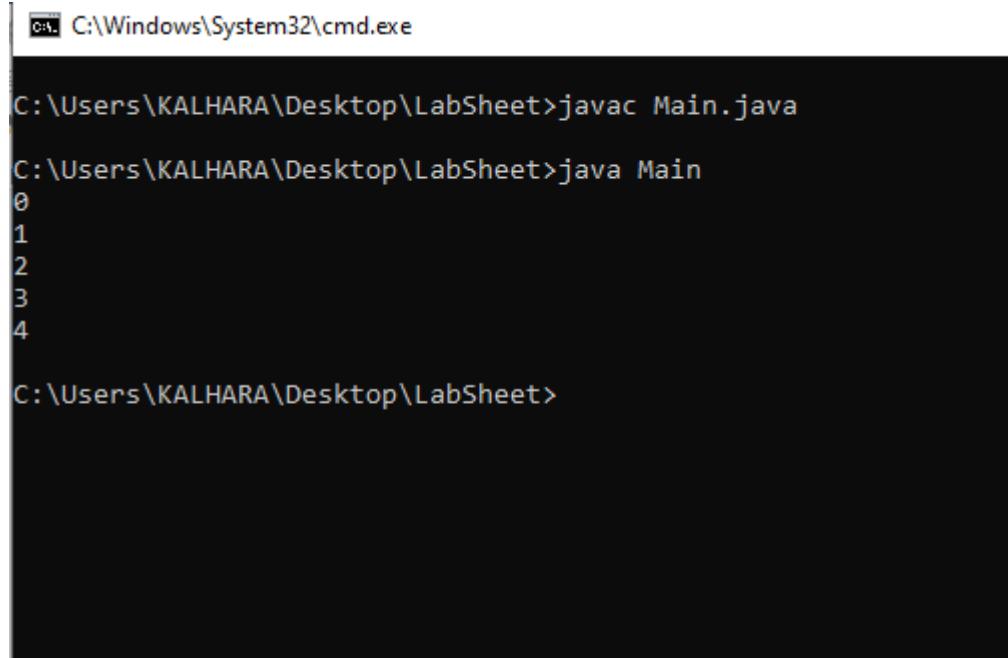
**Tasks 18:**

## Java Loops

### 01. Java While Loop

```
public class Main {  
    public static void main(String[] args) {  
        int i = 0;  
        while (i < 5) {  
            System.out.println(i);  
            i++;  
        }  
    }  
}
```

**Output:**



The screenshot shows a Windows Command Prompt window titled 'cmd C:\Windows\System32\cmd.exe'. The command 'javac Main.java' is run, followed by 'java Main'. The output displays the numbers 0 through 4, each on a new line, indicating the execution of the while loop.

```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
0  
1  
2  
3  
4
```

### 02. Java Do/While Loop

```
public class Main {  
    public static void main(String[] args) {  
        int i = 0;  
        do {  
            System.out.println(i);  
            i++;  
        }  
        while (i < 5);  
    }  
}
```

## Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
0
1
2
3
4

C:\Users\KALHARA\Desktop\LabSheet>
```

## 03.Java For Loop

```
public class Main {
    public static void main(String[] args) {
        for (int i = 0; i < 5; i++) {
            System.out.println(i);
        }
    }
}
```

## Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
0
1
2
3
4

C:\Users\KALHARA\Desktop\LabSheet>
```

## 04.Nested Loops

```
public class Main {  
    public static void main(String[] args) {  
        for (int i = 1; i <= 2; i++) {  
            System.out.println("Outer: " + i);  
            for (int j = 1; j <= 3; j++) {  
                System.out.println(" Inner: " + j);  
            }  
        }  
    }  
}
```

### Output:

```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
Outer: 1  
    Inner: 1  
    Inner: 2  
    Inner: 3  
Outer: 2  
    Inner: 1  
    Inner: 2  
    Inner: 3  
C:\Users\KALHARA\Desktop\LabSheet>
```

## 05.For-Each Loop

```
public class Main {  
    public static void main(String[] args) {  
        String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
        for (String i : cars) {  
            System.out.println(i);  
        }  
    }  
}
```

## Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
Volvo
BMW
Ford
Mazda

C:\Users\KALHARA\Desktop\LabSheet>
```

## Tasks 19:

### Java Break and Continue

#### 01.Java Break

```
public class Main {
    public static void main(String[] args) {
        for (int i = 0; i < 10; i++) {
            if (i == 4) {
                break;
            }
            System.out.println(i);
        }
    }
}
```

## Output:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19041.264]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

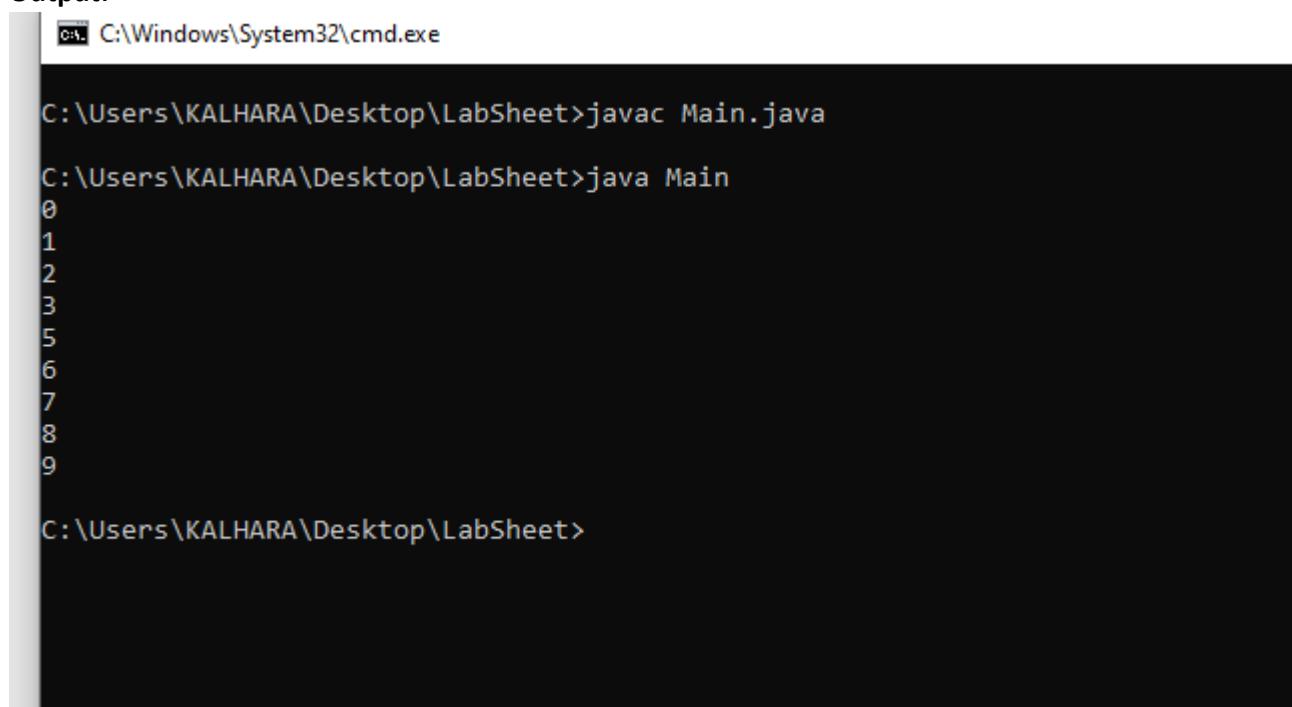
C:\Users\KALHARA\Desktop\LabSheet>java Main
Volvo
BMW
Ford
Mazda

C:\Users\KALHARA\Desktop\LabSheet>
```

## 0.Java Continue

```
public class Main {  
    public static void main(String[] args) {  
        for (int i = 0; i < 10; i++) {  
            if (i == 4) {  
                continue;  
            }  
            System.out.println(i);  
        }  
    }  
}
```

Output:



The screenshot shows a Windows Command Prompt window titled 'cmd.exe' with the path 'C:\Windows\System32\cmd.exe'. The command 'javac Main.java' is run, followed by 'java Main'. The output displays integers from 0 to 9, skipping the value 4 due to the 'continue' statement in the code.

```
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
0  
1  
2  
3  
5  
6  
7  
8  
9  
C:\Users\KALHARA\Desktop\LabSheet>
```

Tasks 20:

### Java Arrays

```
public class Main {  
    public static void main(String[] args) {  
        String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
        System.out.println(cars[0]);  
    }  
}
```

**Output:**

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

C:\Users\KALHARA\Desktop\LabSheet>java Main
Volvo

C:\Users\KALHARA\Desktop\LabSheet>
```

**01.Change an Array Element**

```
public class Main {

    public static void main(String[] args) {
        String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};
        cars[0] = "Opel";
        System.out.println(cars[0]);
    }
}
```

**Output:**

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Main.java

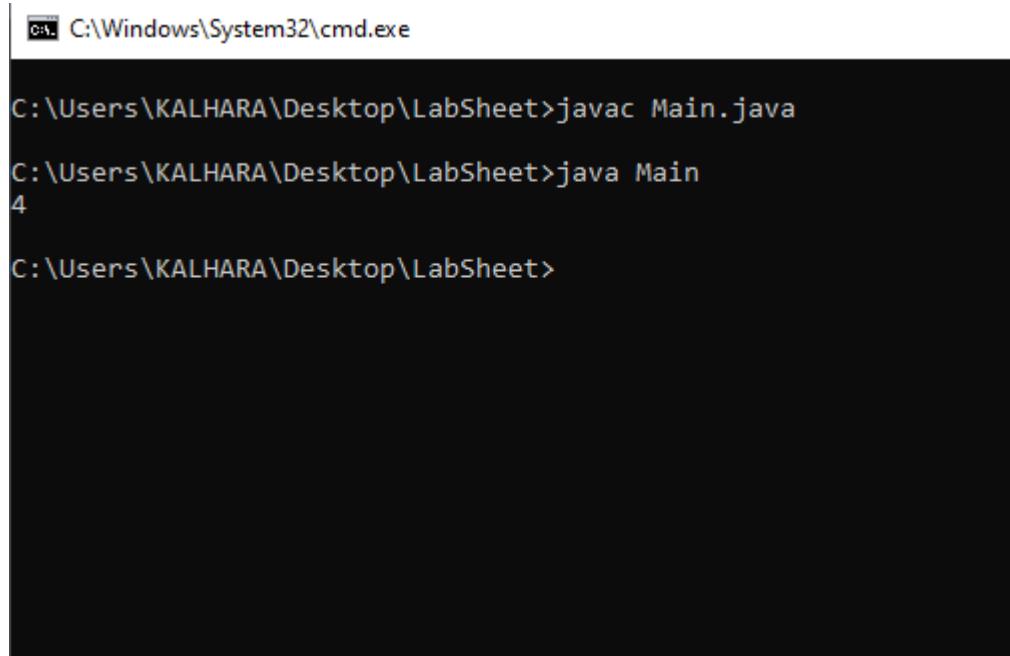
C:\Users\KALHARA\Desktop\LabSheet>java Main
Opel

C:\Users\KALHARA\Desktop\LabSheet>
```

## 02.Array Length

```
public class Main {  
    public static void main(String[] args) {  
        String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
        System.out.println(cars.length);  
    }  
}
```

### Output:



```
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
4  
C:\Users\KALHARA\Desktop\LabSheet>
```

## 03.Loop Through an Array

```
public class Main {  
    public static void main(String[] args) {  
        String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
        for (int i = 0; i < cars.length; i++) {  
            System.out.println(cars[i]);  
        }  
    }  
}
```

**Output:**

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
Volvo
BMW
Ford
Mazda
C:\Users\KALHARA\Desktop\LabSheet>
```

#### 04. Multidimensional Arrays

```
public class Main {
    public static void main(String[] args) {
        int[][] myNumbers = { {1, 2, 3, 4}, {5, 6, 7} };
        System.out.println(myNumbers[1][2]);
    }
}
```

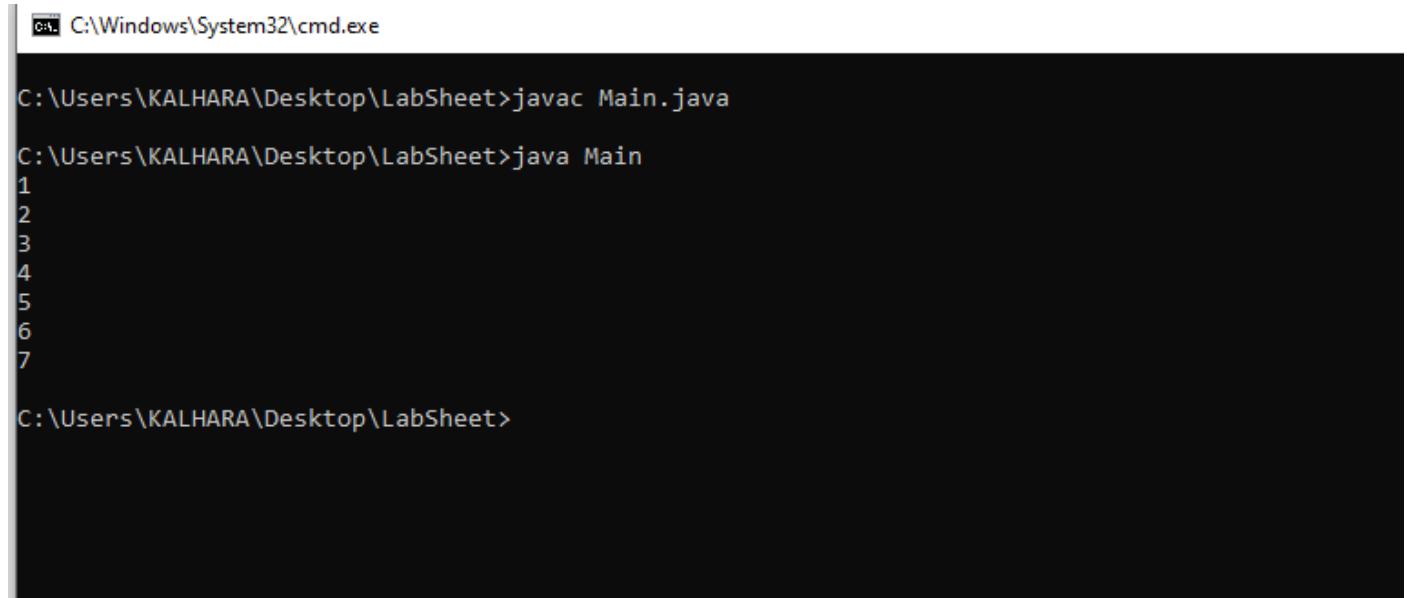
**Output:**

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java
C:\Users\KALHARA\Desktop\LabSheet>java Main
7
C:\Users\KALHARA\Desktop\LabSheet>
```

## 05.Loop Through a Multi-Dimensional Array

```
public class Main {  
    public static void main(String[] args) {  
        int[][] myNumbers = { {1, 2, 3, 4}, {5, 6, 7} };  
        for (int i = 0; i < myNumbers.length; ++i) {  
            for(int j = 0; j < myNumbers[i].length; ++j) {  
                System.out.println(myNumbers[i][j]);  
            }  
        }  
    }  
}
```

### Output:



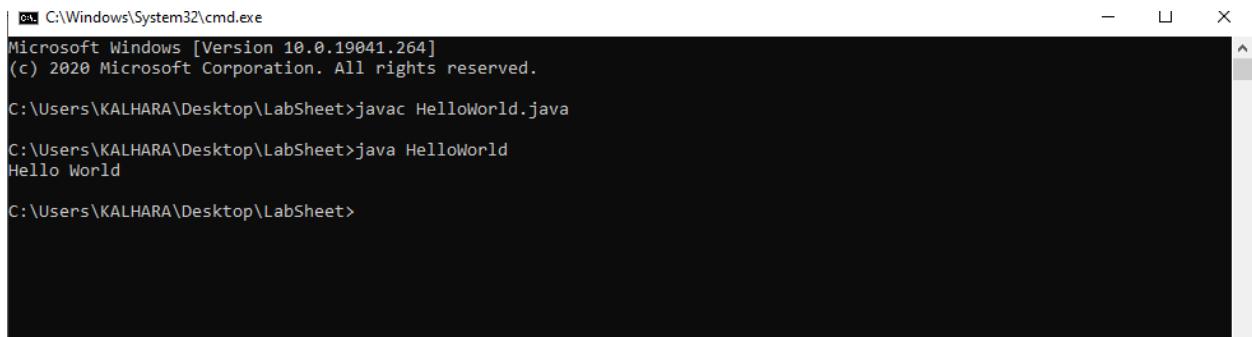
The screenshot shows a Windows Command Prompt window with the following text:  
C:\Windows\System32\cmd.exe  
C:\Users\KALHARA\Desktop\LabSheet>javac Main.java  
C:\Users\KALHARA\Desktop\LabSheet>java Main  
1  
2  
3  
4  
5  
6  
7  
C:\Users\KALHARA\Desktop\LabSheet>

### Exercise 01:

- 1) Create your first java program that will print, “Hello, Welcome to Object Oriented Programming!”.
  - a) Make the name of the class as ‘**HelloWorld**’.
  - b) Write the main method that will execute the print statement given.
  - c) Save the program by giving the file name same as class class and with the .java extension.
  - d) Compile the program you created.
  - e) Execute the program you created.

```
public class HelloWorld{
    public static void main (String[] args){
        System.out.println("Hello World");
    }
}
```

Output:



A screenshot of a Windows Command Prompt window titled 'C:\Windows\System32\cmd.exe'. The window shows the following text:  
Microsoft Windows [Version 10.0.19041.264]  
(c) 2020 Microsoft Corporation. All rights reserved.  
C:\Users\KALHARA\Desktop\LabSheet>javac HelloWorld.java  
C:\Users\KALHARA\Desktop\LabSheet>java HelloWorld  
Hello World  
C:\Users\KALHARA\Desktop\LabSheet>

2. Create a class to display the following.

**Name : Sam**  
**Subject: OOP**  
**Duration : 4 Months**  
**Grade : A+**

```
public class Exercise1{
    public static void main(String[] args){

        String Name="Sam";
        String Subject ="OOP";
        String Duration ="4 Months";
        String Grade="A+";

        System.out.println(" Name :" + Name);
        System.out.println(" Subject:" + Subject);
        System.out.println(" Duration:" + Duration);
        System.out.println(" Grade :" + Grade);

    }
}
```

## Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Exercise1.java

C:\Users\KALHARA\Desktop\LabSheet>java Exercise1
Name :Sam
Subject:OOP
Duration:4 Months
Grade :A+
```

## Exercise 02:

1. Create a class called **Student**. Within this class,
  - a. Define two variables namely **id** and **name**.
  - b. Initialize **id** to **1** and **name** to **Kamal**.
  - c. **Display everything inside the Method.**

```
public class Students{
    public static void main (String[] args){
        int id=1;
        String Name ="Kamal";
        System.out.println("Id :" +id);
        System.out.println("Name:" +Name);
```

```
}
```

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Students.java

C:\Users\KALHARA\Desktop\LabSheet>java Students
Id :1
Name:Kamal

C:\Users\KALHARA\Desktop\LabSheet>
```

### Exercise 03:

1. Create a class called **Employee**. Within the class,

- a. Create the variables **empid**, **name** and **salary** (salary is a float value).
- b. Assign the Value for those variable and display all.
- c. Change the Value after display those value with the same method.

```
import java.util.Scanner;

public class Employee{
    public static void main(String []args){
        String empid_name;
        float salary;
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter empid name:");
        empid_name =scanner.nextLine();

        System.out.print("Enter salary:");
        salary=scanner.nextFloat();

        System.out.print("empid name is a:"+empid_name);
        System.out.print("salary is a:"+salary);
    }
}
```

#### Output:

```
C:\Windows\System32\cmd.exe

C:\Users\KALHARA\Desktop\LabSheet>javac Employee.java
C:\Users\KALHARA\Desktop\LabSheet>java Employee
Enter empid name:Kalhara
Enter salary:1200.25
empid name is a:Kalharasalary is a:1200.25
C:\Users\KALHARA\Desktop\LabSheet>
```

#### **Exercise 04:**

1. Create a class called MyName to print your name.

```
public class MyName{  
    public static void main(String []args){  
        System.out.println("My name is Kalhara");  
    }  
}
```

Output:

```
C:\Windows\System32\cmd.exe  
  
C:\Users\KALHARA\Desktop\LabSheet>javac MyName.java  
  
C:\Users\KALHARA\Desktop\LabSheet>java MyName  
My name is Kalhara  
  
C:\Users\KALHARA\Desktop\LabSheet>
```

2. Create a class to display the following

*Java is an example for OOP  
It is a pure Object Oriented language*

```
public class MyClass{  
    public static void main(String[] args){  
        System.out.println("Java is an example for OOP ");  
        System.out.println("It is a pure Object Oriented language");  
    }  
}
```

## Output:

```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac MyClass.java
C:\Users\KALHARA\Desktop\LabSheet>java MyClass
Java is an example for OOP
It is a pure Object Oriented language
C:\Users\KALHARA\Desktop\LabSheet>
```

3.

- Create a class called **Rectangle**. Within the class,

- I. Create the variables **length** and **width**.

- II. Assign the Value for those variable (float data type).

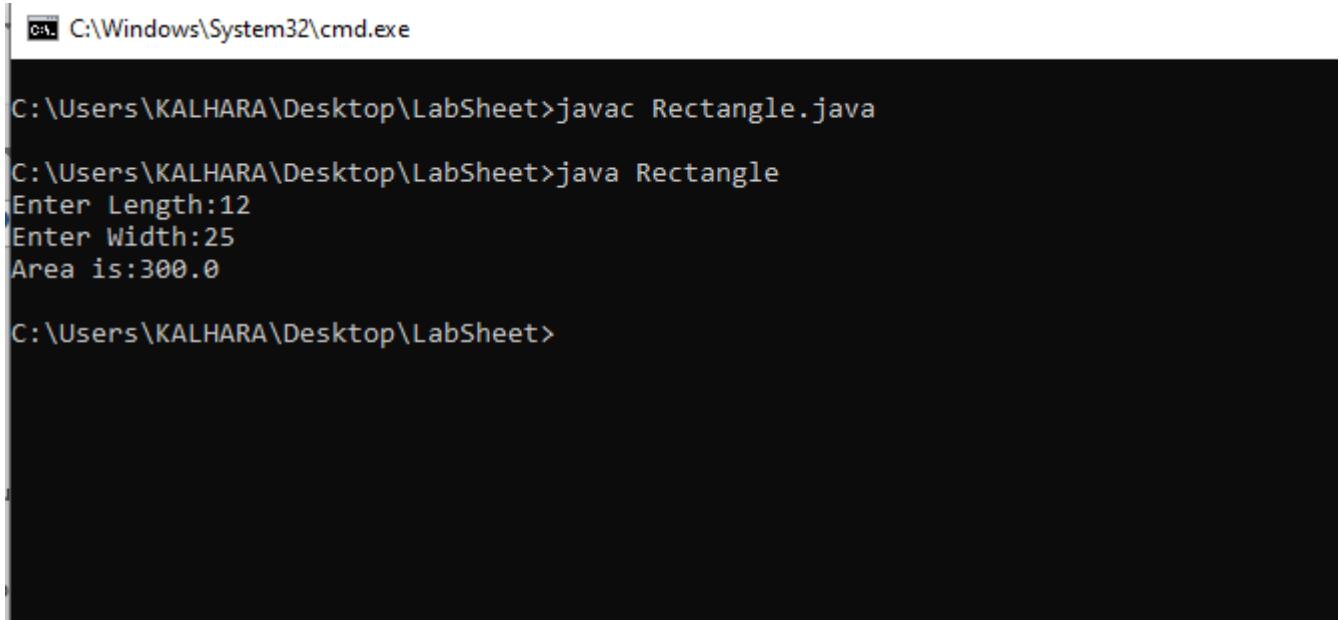
- III. Next, create another method **calculateArea()** to calculate the area of the given rectangle.

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

        Scanner sc =new Scanner(System.in);

        float length;
        float width;
        System.out.print("Enter Length:");
        length = sc.nextFloat();
        System.out.print("Enter Width:");
        width = sc.nextFloat();
        float Area;
        Area =length*width;
        System.out.println("Area is:"+Area);
    }
}
```

## Output:



```
C:\Windows\System32\cmd.exe
C:\Users\KALHARA\Desktop\LabSheet>javac Rectangle.java
C:\Users\KALHARA\Desktop\LabSheet>java Rectangle
Enter Length:12
Enter Width:25
Area is:300.0
C:\Users\KALHARA\Desktop\LabSheet>
```

## Discussion :

- User Input
- Output
- Comments
- Operators
- Conditional Statement
- Loops
- Array