Experiment Number : 02 **Date: 28.01.2026**

Input and Output Statements in Java

Aim:

To understand and use input and output statements in Java using the Scanner class.

PRE LAB EXERCISE

QUESTIONS

1)What is input in a program?

Input is the **data or values given to a program** so that it can perform some operation. The input is usually provided by the **user**, a **file**, or another program.

Example:
Numbers entered from the keyboard, like 5 and 10, are inputs.

2)What is output in a program?

Output is the result produced by a program after processing the input.
It is usually displayed on the screen, stored in a file, or sent to another system.

Example:
If the program adds 5 + 10, the result 15 is the output.

3)Which class is used to read input from the user in Java? In Java, the **Scanner class** is commonly used to read input from the user.

It belongs to the package:

java.util.Scanner

Example:

```
Scanner sc = new Scanner(System.in);
```

IN LAB EXERCISE

Objective:

To read input from the user and display the output using Java input and output statements.

INPUT STATEMENT:

SCANNER CLASS

- ✓ The Scanner class in Java is used to read input from the user through the keyboard. It is available in the package java.util.
- ✓ The Scanner object reads different types of input such as integer, float, double, and string and stores them in variables.
- ✓ To use the Scanner class, it must be imported before using it in the program.

SYNTAX:

- ✓ Scanner sc = new Scanner(System.in);

Commonly Used Scanner Methods:

- ✓ nextInt() – reads an integer value
- ✓ nextFloat() – reads a float value
- ✓ nextDouble() – reads a double value
- ✓ next() – reads a single word
- ✓ nextLine() – reads a complete line of text

PROGRAMS:

Program 1: Read and Display Name

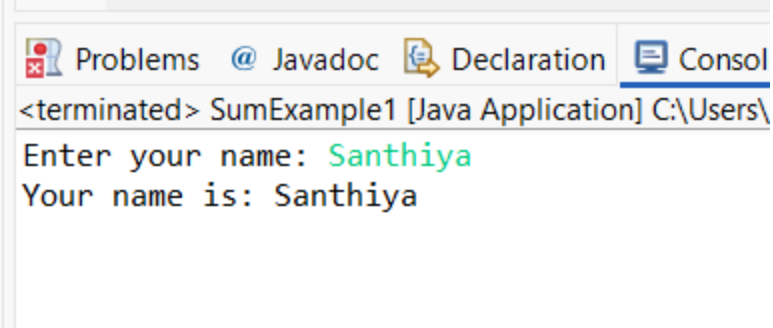
Source Code:

```
import java.util.Scanner;

class ReadName {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter your name: ");

String name = sc.nextLine();

System.out.println("Your name is: " + name);

}

}
```

Output:

Enter your name: Anitha

Your name is: Anitha



Program 2: Read Two Numbers and Print Sum

Source Code:

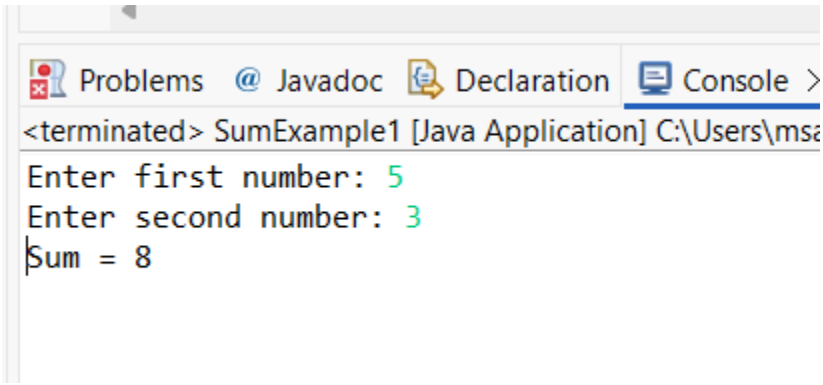
```
import java.util.Scanner;

class SumInput {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter first number: ");

int a = sc.nextInt();

System.out.print("Enter second number: ");

int b = sc.nextInt();

int sum = a + b;

System.out.println("Sum = " + sum);

}

}
```

Output:

Enter first number: 5

Enter second number: 3

Sum = 8



Program 3: Read Length and Breadth and Find Area of Rectangle

Source Code:

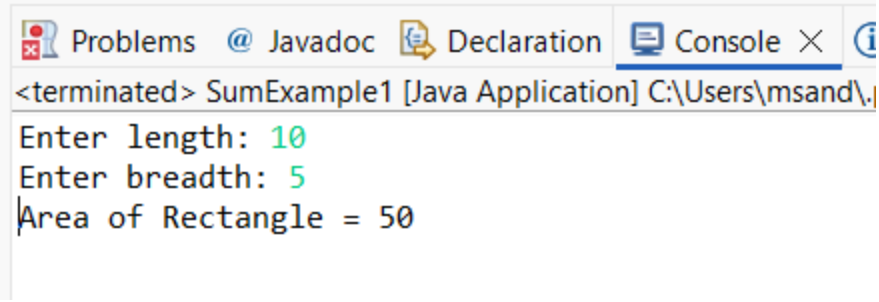
```
import java.util.Scanner;


class AreaRectangleInput {
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter length: ");
int length = sc.nextInt();
System.out.print("Enter breadth: ");
int breadth = sc.nextInt();
int area = length * breadth;
System.out.println("Area of Rectangle = " + area);
}
}
```

Output:

Enter length: 10

Enter breadth: 5

Area of Rectangle = 50



POST LAB EXERCISE

1)What is the use of the Scanner class in Java?

The **Scanner class** is used to **read input from the user** such as numbers, characters, and strings during program execution.

2)Which package contains the Scanner class?

The **Scanner class** is present in the **java.util package**.

3)What does System.in represent?

System.in represents the **standard input stream**, which is used to **take input from the keyboard**.

4)What does System.out represent?

System.out represents the **standard output stream**, which is used to **display output on the screen**.

5)Name any two methods used to read input using Scanner.

Any two input methods are:

- nextInt() – reads an integer
- nextLine() – reads a line of text

(Other examples: nextFloat(), nextDouble(), next())

5)What is the difference between next() and nextLine()?

next()	**nextLine()**
Reads a **single word**	Reads a **full line**
Stops at space	Reads until Enter key
Cannot read spaces	Can read spaces

Result:

Thus the input was successfully read from the user and the corresponding output was displayed using Java input and output statements.

ASSESSMENT

Description	Max Marks	Marks Awarded
Pre Lab Exercise	**5**	
In Lab Exercise	**10**	
Post Lab Exercise	**5**	
Viva	**10**	
Total	**30**	
	Faculty Signature	