

Day 05 – Taking User Input in Java

In this chapter, we will learn how to take input from the user in Java. User input allows programs to become interactive. Each concept is explained step by step.

1. Why do we need User Input?

User input is needed when we want the program to accept values from the user at runtime instead of using fixed values in the program.

2. Scanner Class in Java

Java provides the Scanner class to read input from the keyboard. It is present in the `java.util` package.

Steps to use Scanner:

- Import the Scanner class
- Create Scanner object
- Use Scanner methods to take input

Example 1: Taking Integer Input

```
import java.util.Scanner;
class InputDemo {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter your age: ");
        int age = sc.nextInt();
        System.out.println("Your age is: " + age);
    }
}
```

Example 2: Taking String Input

```
Scanner sc = new Scanner(System.in);
System.out.print("Enter your name: ");
String name = sc.nextLine();
System.out.println("Hello " + name);
```

3. Common Scanner Methods

Method	Purpose
<code>nextInt()</code>	Reads integer value
<code>nextFloat()</code>	Reads float value
<code>nextDouble()</code>	Reads double value
<code>next()</code>	Reads single word
<code>nextLine()</code>	Reads full line

Important Points

- Always import `java.util.Scanner`
- Close Scanner after use
- Use `nextLine()` carefully after numeric input

Conclusion

Using Scanner class makes Java programs interactive. Understanding user input is very important for real-world applications.