



# Module 3: Taking Input From User in JAVA



# Scanner Class In JAVA

- Scanner is a class in java.util package used for obtaining the input of the primitive types like int, double, etc. and strings.
- To use the Scanner class, we have to create an object of the class and use any of the available methods found in the Scanner class.
- It is the easiest way to read input in a Java program.
- **Syntax:-** Scanner sc=**new** Scanner(System.in);
- To read numerical values of a certain data type XYZ, the function to use is nextXYZ().
- For example, to read a value of type short, we can use nextShort()
- To read strings, we use nextLine().
- To read a single character, we use next().charAt(0). next() function returns the next token/word in the input as a string and charAt(0) function returns the first character in that string.
- The java.util package should be import while using Scanner class.

# Methods of Java In Scanner Class

Java Scanner class provides the following methods to read different primitives types:

| Method                             | Description  |
|------------------------------------|--|
| <b>int nextInt()</b>               | It is used to scan the next token of the input as an integer.        |
| <b>float nextFloat()</b>           | It is used to scan the next token of the input as a float.           |
| <b>double nextDouble()</b>         | It is used to scan the next token of the input as a double.          |
| <b>byte nextByte()</b>             | It is used to scan the next token of the input as a byte.            |
| <b>String nextLine()</b>           | Advances this scanner past the current line.                         |
| <b>boolean nextBoolean()</b>       | It is used to scan the next token of the input into a boolean value. |
| <b>long nextLong()</b>             | It is used to scan the next token of the input as a long.            |
| <b>short nextShort()</b>           | It is used to scan the next token of the input as a Short.           |
| <b>BigInteger nextBigInteger()</b> | It is used to scan the next token of the input as a BigInteger.      |
| <b>BigDecimal nextBigDecimal()</b> | It is used to scan the next token of the input as a BigDecimal.      |

# Example of integer input from user

The following example allows user to read an integer form the System.in.

```
import java.util.*;
class add
{
    public static void main(String[] args)
    {
        Scanner sc= new Scanner(System.in); //System.in is a standard input stream
        System.out.print("Enter first number- ");
        int a= sc.nextInt();
        System.out.print("Enter second number- ");
        int b= sc.nextInt();
        int c=a+b;
        System.out.println("Total= " +c);
    }
}
```

# Example of String input from user

```
import java.util.Scanner; // Import the Scanner class
```

```
class Main {
```

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

```
        Scanner myObj = new Scanner(System.in); // Create a Scanner object
```

```
        System.out.println("Enter username");
```

```
        String userName = myObj.nextLine(); // Read user input
```

```
        System.out.println("Username is: " + userName); // Output user input
```

```
    }
```

```
}
```