

Scanner

Scanner class in Java is found in the `java.util` package. Java provides various ways to read input from the keyboard, the `java.util.Scanner` class is one of them.

The Java Scanner class is widely used to parse text for strings and primitive types using a regular expression. It is the simplest way to get input in Java. By the help of Scanner in Java, we can get input from the user in primitive types such as `int`, `long`, `double`, `byte`, `float`, `short`, etc.

The Java Scanner class extends `Object` class and implements `Iterator` and `Closeable` interfaces.

The Java Scanner class provides `nextXXX()` methods to return the type of value such as `nextInt()`, `nextByte()`, `nextShort()`, `next()`, `nextLine()`, `nextDouble()`, `nextFloat()`, `nextBoolean()`, etc. To get a single character from the scanner, you can call `next().charAt(0)` method which returns a single character.

How to get Java Scanner

To get the instance of Java Scanner which reads input from the user, we need to pass the input stream (`System.in`) in the constructor of Scanner class. For Example:

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

Method	Description
<code>Scanner(InputStream source)</code>	Creates a new Scanner to parse input from an InputStream.
<code>Scanner(File source)</code>	Creates a new Scanner to parse input from a File.
<code>Scanner(String source)</code>	Creates a new Scanner to parse input from a String.
<code>hasNext()</code>	Returns <code>true</code> if there is another token in the input.
<code>hasNextInt()</code>	Returns <code>true</code> if the next token is an integer.
<code>hasNextDouble()</code>	Returns <code>true</code> if the next token is a double.
<code>next()</code>	Returns the next token as a String.
<code>nextInt()</code>	Scans the next token as an integer.
<code>nextDouble()</code>	Scans the next token as a double.
<code>nextLine()</code>	Returns the next line of text.

Example 1

Let's see a simple example of Java Scanner where we are getting a single input from the user. Here, we are asking for a string through `in.nextLine()` method.

```
import java.util.*;

public class ScannerExample {

    public static void main(String args[]){

        Scanner in = new Scanner(System.in);

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

        String name = in.nextLine();

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

    }

}
```

Example 2

```
import java.util.*;

public class ScannerClassExample1 {

    public static void main(String args[]){

        //Print the string

        System.out.println("String: " + scan.nextLine());

        scan.close();

        System.out.println("-----Enter Your Details----- ");

    }

}
```

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

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

String name = in.next();

System.out.println("Name: " + name);

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

int i = in.nextInt();

System.out.println("Age: " + i);

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

double d = in.nextDouble();

System.out.println("Salary: " + d);

in.close();

}

}
```

Task : Take details of a person and print his bio data.
Filed names like name , age, mail , dob , sal etc.