

Scanner classes

Allows the user to input the values of various types

Defined within a package `java.util`

**This allows the user to input the values from
either the keyboard or from file without using any conversion**

Importing

```
import java.util.Scanner;
```

Creating scanner object

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

Methods

- `nextInt()`:
- receives the next token from scanner object which can be expressed as an integer and stored in integer type

- `nextFloat()`:
- receives the next token from scanner object which can be expressed as an floating and stored in float type

- `nextLong()`:
- receives the next token from scanner object which can be expressed as an long and stored in long type

- `nextDouble()`:
- receives the next token from scanner object which can be expressed as an double and stored in double type

- `next()`:
- receives the next token from scanner object as a string

- **next ()**: receives the next token from scanner object as a string
- **nextLine()**: receives the next line of the string

Ex:

```
int n= in.nextInt();
```

```
float f = in.nextFloat();
```

```
String s1=in.next();
```

```
String s2=in.nextLine();
```

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Outputs:

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Program

```
import java.util.Scanner;
class scanner1
{
void main()
{
Scanner sc = new Scanner(System.in);
int n;
double d;
String word;
String line;
System.out.println("Enter int,double,a line");
n=sc.nextInt();
d=sc.nextDouble();
word=sc.next();
line=sc.nextLine();
System.out.println("The outputs are");
System.out.println(n);
System.out.println(d);
System.out.println(word);
System.out.println(line);
}
}
```

Output

Enter int,double,a line

23

2345.6789

I Love India

The outputs are

23

2345.6789

I

Love India

Token checking methods

- Boolean hasNextInt()
- Returns true if the next token in the scanner object can be interrupted as an int value

- `Boolean hasNextLong()`
- Returns true if the next token in the scanner object can be interrupted as a long value

- Boolean hasNextFloat()
- Returns true if the next token in the scanner object can be interrupted as a float value

- **Boolean hasNextDouble()**
- Returns true if the next token in the scanner object can be interrupted as a double value

- Boolean hasNext()
- Returns true if the scanner object has another token in its input otherwise false

- Boolean `hasNextLine()`
- Returns true if the scanner object has another line in its input otherwise false