

# CLASS: Scanner

The `Scanner` class is a *predefined* class in the `java.util` package, used to take input from the user at run-time.

## ✓ Importing the Scanner Class

It is *necessary* to import the `Scanner` class before using it:

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

## ✓ Creating a Scanner Object

To access the members of the `Scanner` class, create an object:

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

## ✓ Useful Methods

Data Type	Method Name
<code>byte</code>	<code>.nextByte();</code>
<code>short</code>	<code>.nextShort();</code>
<code>int</code>	<code>.nextInt();</code>
<code>long</code>	<code>.nextLong();</code>
<code>float</code>	<code>.nextFloat();</code>
<code>double</code>	<code>.nextDouble();</code>
<code>char</code>	<code>.next().charAt(index);</code>

Data Type	Method Name
boolean	.nextBoolean();
String	.next();, .nextLine();

## ✓ Example: Check Whether a Number is Prime

```
1 import java.util.Scanner;
2
3 class PrimeChecker {
4     public static void main(String[] args) {
5         Scanner userInput = new Scanner(System.in);
6
7         System.out.print("Enter a number: ");
8         int number = userInput.nextInt();
9
10        boolean isPrime = true;
11        if (number <= 1) {
12            isPrime = false;
13        } else {
14            for (int i = 2; i <= number / 2; i++) {
15                if (number % i == 0) {
16                    isPrime = false;
17                    break;
18                }
19            }
20        }
21
22        if (isPrime) {
23            System.out.println(number + " is a prime number.");
24        } else {
25            System.out.println(number + " is not a prime number.");
26        }
27    }
28 }
```