

`Supplier` is an interface that does not take in any argument but produces a value when the `get()` function is invoked. Suppliers are useful when we don't need to supply any value and obtain a result at the same time.

Below are some of the functional interfaces, which can be categorized as a supplier.

Interface Name	Description	Abstract Method
<code>Supplier<T></code>	Represents a supplier of results (reference type)	<code>T get()</code>
<code>DoubleSupplier</code>	A supplier of double-value results	<code>double getAsDouble()</code>
<code>IntSupplier</code>	A supplier of int-value results	<code>int getAsInt()</code>
<code>LongSupplier</code>	A supplier of long-value results	<code>long getAsLong()</code>
<code>BooleanSupplier</code>	A supplier of boolean-value results	<code>boolean getAsBoolean()</code>

Supplier<T>#

The `Supplier<T>` interface supplies a result of type `T`. In the previous lesson, we were passing a person object and a predicate to our `isPersonEligibleForVoting()` method.

In this example, we will provide a `Supplier<Person>` instead of the `Person` object. The `isPersonEligibleForVoting()` method will, itself, fetch the `Person` object from the supplier. Here is the code for this.

```
1 import java.util.function.Predicate;
2 import java.util.function.Supplier;
3
4 public class SupplierTest {
5
6     static boolean isPersonEligibleForVoting(
7         Supplier<Person> supplier, Predicate<Person> predicate) {
8         return predicate.test(supplier.get());
9     }
10
11     public static void main(String args[]) {
12         Supplier<Person> supplier = () -> new Person("Alex", 23);
13         Predicate<Person> predicate = (p) -> p.age > 18;
14         boolean eligible =
15             isPersonEligibleForVoting(supplier, predicate);
16         System.out.println("Person is eligible for voting: " + eligible);
17     }
18 }
19
20 class Person {
21     String name;
22     int age;
23
24     Person(String name, int age) {
25         this.name = name;
26         this.age = age;
27     }
28 }
```

Run

SaveReset

The `Supplier<T>` interface does not contain any default or static methods. Let us look at some of the primitive specializations of the supplier interface.

IntSupplier#

The `IntSupplier` interface has a method `getAsInt()`, which applies the given operation on its argument and returns an int value. It is similar to using an object of type `Supplier<Integer>`.

```
1 import java.util.function.IntSupplier;
2
3 public class SupplierDemo {
4
5     public static void main(String args[]) {
6
7         IntSupplier supplier = () -> (int)(Math.random() * 10);
8
9         System.out.println(supplier.getAsInt());
10     }
11 }
12
```

Run

SaveReset

DoubleSupplier#

The `DoubleSupplier` interface has a method `getAsDouble()`, which applies the given operation on its argument and returns a double value. It is similar to using an object of type `Supplier<Double>`.

```
1 import java.util.function.DoubleSupplier;
2
3 public class SupplierDemo {
4
5     public static void main(String args[]) {
6
7         DoubleSupplier supplier = () -> (int)(Math.random() * 10);
8
9         System.out.println(supplier.getAsDouble());
10     }
11 }
12
```

Run

SaveReset