

Assertion:

Assertion is a statement in java. It can be used to test your assumptions about the program.

While executing assertion, it is believed to be true. If it fails, JVM will throw an error named `AssertionError`. It is mainly used for testing purpose.

Advantage of Assertion:

It provides an effective way to detect and correct programming errors.

Syntax of using Assertion:

There are two ways to use assertion. First way is:

```
assert expression;
```

and second way is:

```
assert expression1 : expression2;
```

Simple Example of Assertion in java:

```
import java.util.Scanner;

class AssertionExample{
    public static void main( String args[] ){

        Scanner scanner = new Scanner( System.in );
        System.out.print("Enter ur age ");

        int value = scanner.nextInt();
        assert value >= 18 : " Not valid";

        System.out.println("value is "+value);
    }
}
```

[download this example](#)

If you use assertion, It will not run simply because assertion is disabled by default. To enable the assertion, **-ea** or **-enableassertions** switch of java must be used.

Compile it by: **javac AssertionExample.java**

Run it by: **java -ea AssertionExample**

```
Output: Enter ur age 11
        Exception in thread "main" java.lang.AssertionError: Not valid
```

Where not to use Assertion:

There are some situations where assertion should be avoid to use. They are:

1. According to Sun Specification, assertion should not be used to check arguments in the public methods because it should result in appropriate runtime exception e.g. `IllegalArgumentException`, `NullPointerException` etc.
2. Do not use assertion, if you don't want any error in any situation.