Java Methods

Defining Methods in Java

Method declarations have six components, in order:

1. Modifiers—such as public, private, and others you will learn about later.
2. The return type—the data type of the value returned by the method, or void if the method does not return a value.
3. The method name
4. The parameter list in parenthesis—a comma-delimited list of input parameters, preceded by their data types, enclosed by parentheses, (). If there are no parameters, you must use empty parentheses.
5. An exception list
6. The method body, enclosed between braces—the method's code, including the declaration of local variables, goes here.

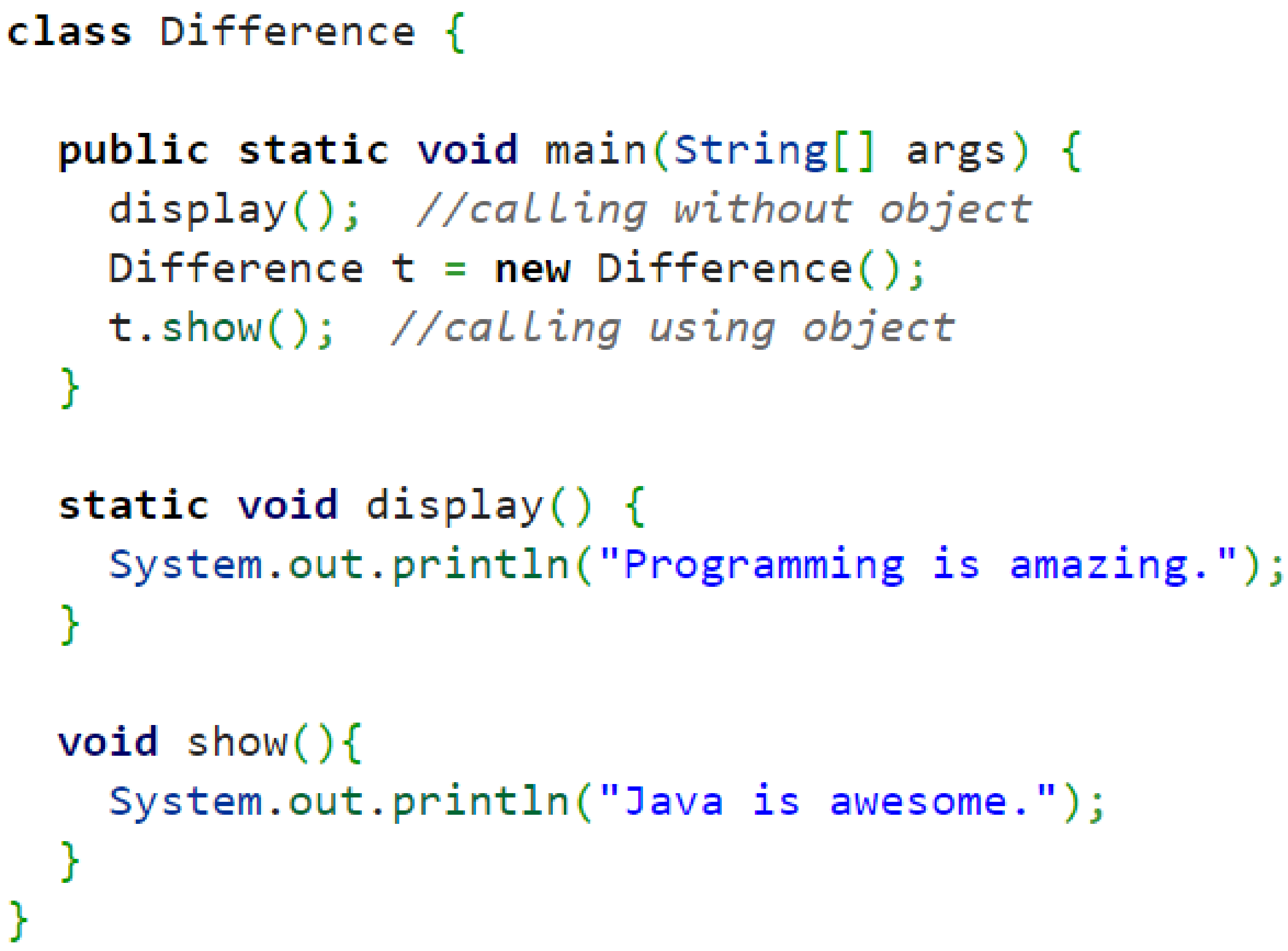
Returning a Value from a Method

A method returns to the code that invoked it when it:

- completes all the statements in the method,
- reaches a return statement, or
- throws an exception

- ➢Any method declared void doesn't return a value. It does not need to contain a return statement, but it may do so.
- ➢In such a case, a return statement can be used to branch out of a control flow block and exit the method (e.g. return;)

Java static method vs instance method



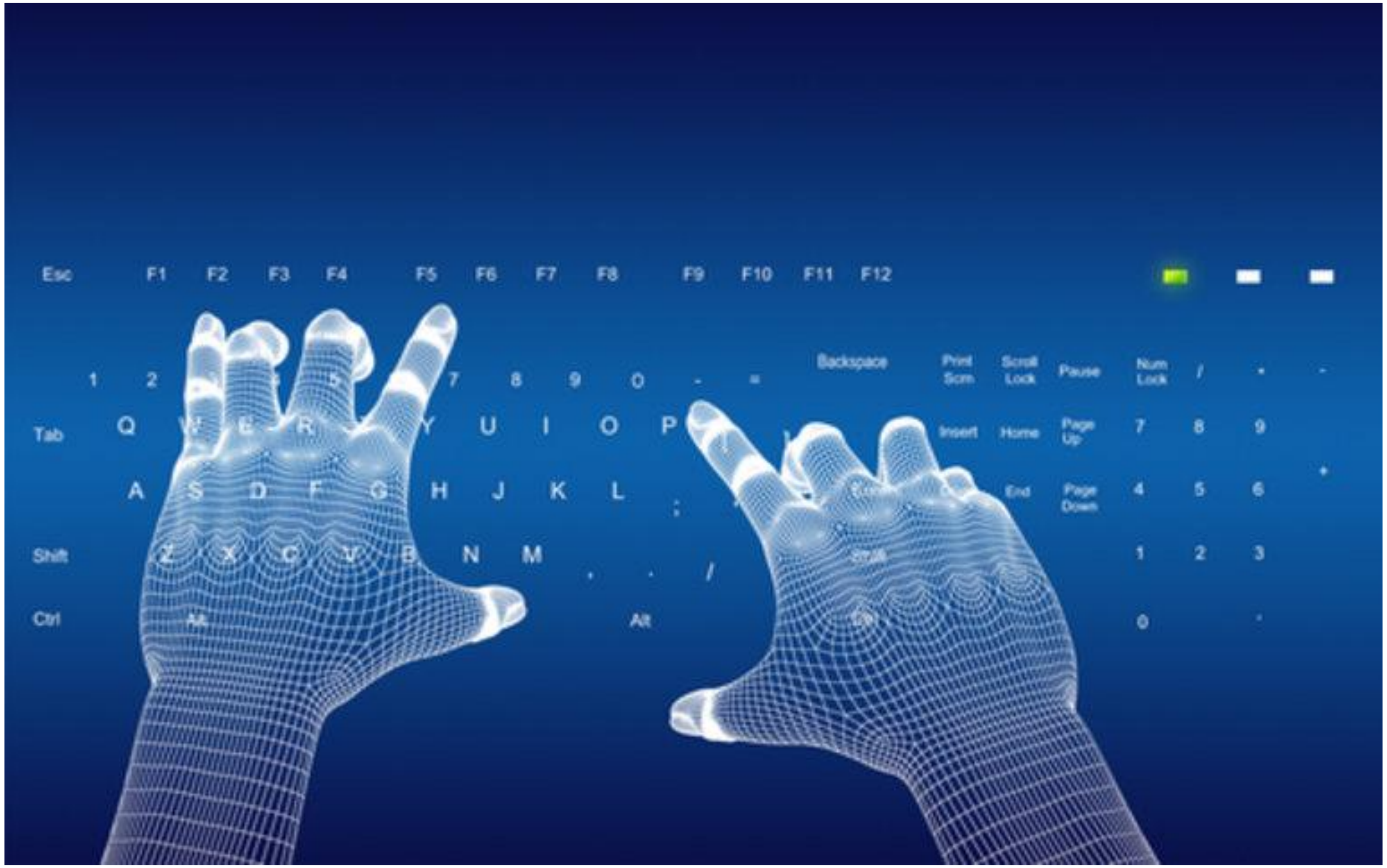
```java
class Difference {

  public static void main(String[] args) {
    display();  //calling without object
    Difference t = new Difference();
    t.show();  //calling using object
  }

  static void display() {
    System.out.println("Programming is amazing.");
  }

  void show(){
    System.out.println("Java is awesome.");
  }
}
```

Practice!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