Using Lambda Expressions in Java Code

IMPLEMENTING LAMBDA EXPRESSIONS WITH FUNCTIONAL INTERFACES

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How to work with lambda expressions

- writing lambdas
- invoking a lambda
- identifying what lambda a method needs
- chaining and composing lambdas

This is a Java course

- basic knowledge of Java
- how to create and run a simple program
- basic knowledge of the Collection API

Java version 8+, 11+

Agenda

First, what is a Functional Interface

How to write a lambda

How to implement classical interfaces with lambda expressions

Implementing Functional Interfaces

A Lambda Expression implements a Functional Interface

A Lambda Expression
is not
another way of writing
instances of anonymous classes

What is a functional interface?

An interface!

That has only one abstract method

- default and static methods do not count

- methods from Object do not count

That may be annotated
with @FunctionalInteface

```
public interface Supplier<T> {
    void accept(T t);
}


Consumer<String> consumer =
        (String s) -> "Hello!";
```

From a functional interface:

- identify the abstract method
- copy / paste the block of parameters
- draw the arrow
- add the implementation you need

Demo

Let us write some code!

You will see simple examples of lambdas

How to write them

And how to invoke them

Module Wrap Up

What did you learn?

What a lambda expression is in Java

What a functional interface is

A 3-steps method to write a lambda

How to invoke a lambda

Get to know the java.util.function toolbox