Lambda in Java

Yuexinag

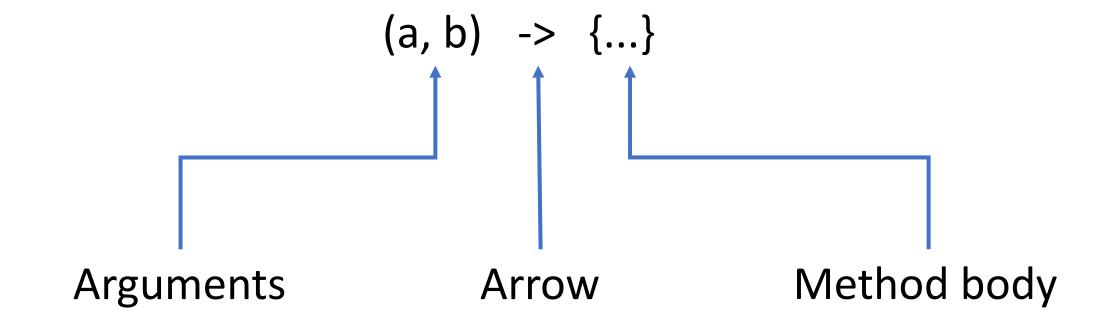
Agenda

• What is lambda

How to create your functional interface

• Stream intro

What lambda look like



Talk is cheap show me the code

What is lambda

• In Java, lambda is an anonymous function.

Actually, it's a syntax sugar.

No template codes.

Why we can use lambda?

```
Predicate<TWer> is_from_china = twer -> twer.region.equals("China");
Consumer<TWer> print_every_name = twer -> System.out.println(twer.name);
Function<TWer, String> get_all_regions = twer -> twer.region;
BinaryOperator<Integer> add_all_ages = (age1, age2) -> age1 + age2;
```

default method

- To implement methods in interfaces
- To compatible other libraries
 - If any library implement Collection interface, without default method, that library can not update to Java 8
- Can be override

static method

• Similar to default method

For good design

FunctionalInterface

• Should be standard functional interface

Only one abstract method

How to create your functional interface

Only one abstract method (necessary)

@FunctionalInterface (not necessary)

Default method (depends on you)

Static method (depends on you)

Stream

- External iteration
- Internal iteration
- How to get a stream
- Lazy evaluation
- Some API

What this will print?

```
Stream<String> nameStream =
    Stream.of("Bryant", "Jordan", "James")
        .peek(name -> System.out.println(name))
        .filter(name -> name.length() == 6);
System.out.println("count");
System.out.println(nameStream.count());
```

Lazy evaluation

• Everyone is lazy, include JVM

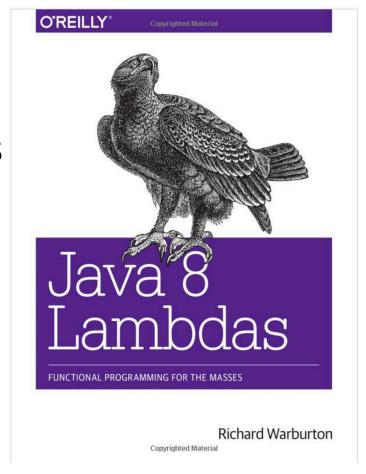
• Stream pipeline won't be called before you need a value from it.

Recommendation

Java 8 Lambdas:

Functional Programming For the Masses

http://blog.gaoyuexiang.cn



Thank you

Q & A