

Java for beginners

Lambda



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Agenda

- ① Functional Interface
- ② Anonymous Inner class
- ③ Lambda

What is an interface?

An interface in java is an abstract type which is used to describe the behaviour that a class must implement.

interface can contain public static final variables and abstract method. Also it may contain default method and static method.

How many methods can be declared in an interface ?

No restriction

Most of the library interfaces are Functional Interfaces.

What is functional Interface ?

An interface having only one abstract method.

Functional Interface

```
@FunctionalInterface  
interface I1 {  
    void show();  
}  
}
```

Functional Interface
is an interface with
only one abstract
method.

Implementing Functional Interface

Class A implements I1 {

```
public void show() {  
    System.out.println("Hello");  
}
```

}

```
I1 obj= new A();  
obj.show();
```

problem with the previous code,
we have to define a class just
to implement an interface, and
what if we need this class only
once?

In functional interface methods of object class are allowed.

```
@FunctionalInterface  
interface I1 {  
    void show();  
    String toString();  
}
```

It can have only one non overriding method, which is show() in above example.

Anonymous inner class

```
II obj= new II() {  
    public void show() {  
        System.out.println("Hello");  
    }  
};
```

lambda

- Lambda expression was introduced in Java 8

```
II obj= new II() {  
    public void show() {  
        System.out.println("Hello");  
    }  
};
```

II obj = () -> { System.out.println("Hello")};

obj.show();

↑
call is required

Lambda expression

if there is only one statement
in the block then {} are optional