Using Partial Application and Lambdas to Build Validators



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Agenda



There is no Validator pattern in the GoF
But so many applications need one...
A Validator is an object

To perform validation in a certain way Let us make it dynamic with lambdas!



How Does a Validator Work?





Suppose you need to validate a form
A Validator validates all the fields
And then produce a set of exceptions
With a message for each faulty field
Then throws a single exception
Wrapping all the others



Validating a Person Bean



Validating a Person Bean

```
public class Person {
   private String name;
   private int age;

   // Getters and setters
}
```

- 2) The age should be > 0
- 3) The age should be < 150



Demo

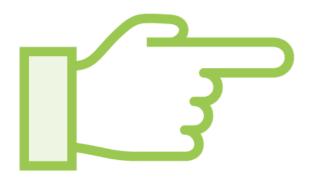


Let us create this Validator as a function

Using lambdas

Factory methods and default methods





The validator itself

Can be modeled with a functional interface

And implemented with lambdas

Leading to very easy to read code



Module Wrap Up



What did you learn?

Once a problem has a model

It can be implemented as a function

That can be created using:

- factory methods
- default methods

Handling exceptions is tricky though...



Course Wrap Up



What did you learn?

How to model a problem with a function

And then use a top down approach:

- 1) Write the pattern in the way you want to use it
- 2) Understand the underlying function

Use factory and default methods to implement it



Course Wrap Up



Thank you!

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