Getting Functional With Java

☑ Functional Programming is not new

☑ Functions/Methods are not first class in Java

Java, JavaScript and Python

○ Java Functional Programming Examples

Example 1 : Print a List of Strings
Example 2 : Print a Filtered List of Strings
Example 3 : Sum of a List of Integers
Example 4 : Filter Even Numbers to List

☑ Advantages

Declarative and Clear Code
No State
Fewer Errors
Easy to Parallelise

☑ What happens in the background in

Java?

Functional Interfaces

☑ **Lambda Variations, Type Inference, Method References, Lazy Evaluation**

○ **Streams and Operations**

○ **What is Functional Programming All About?**

f(x) = x2 + 2x + 1

Pure Functions

No Side Effects

○ **Purely Functional vs Functional Style**

○ **Why Now?**

○ **How can you use Functional Programming in Java?**

○ Four Principles of Simple Design

○ Better Patterns

Strategy
Execute Around

○ Make a few things easier to do

Thread
File Operations

```
Files.list(Paths.get(".")).forEach(System.out
::println);
  Files.find(Paths.get("."), 4, (path,
attributes) ->
String.valueOf(path).contains(".java")).forE
ach(System.out::println);
```