Adopting Scala

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Module 4

Adopting Scala

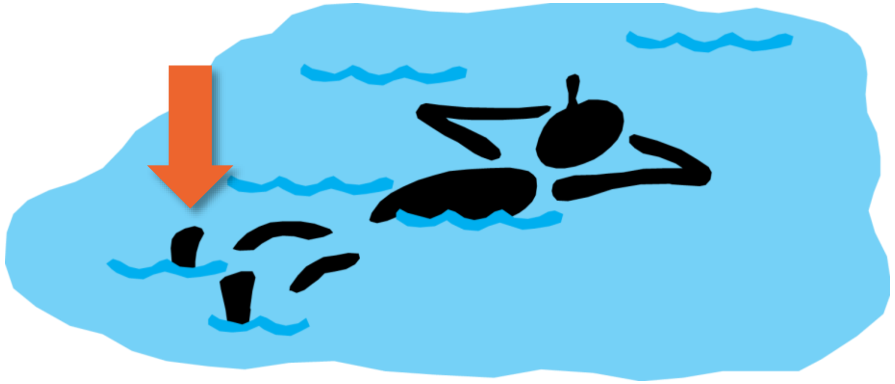
Module Introduction

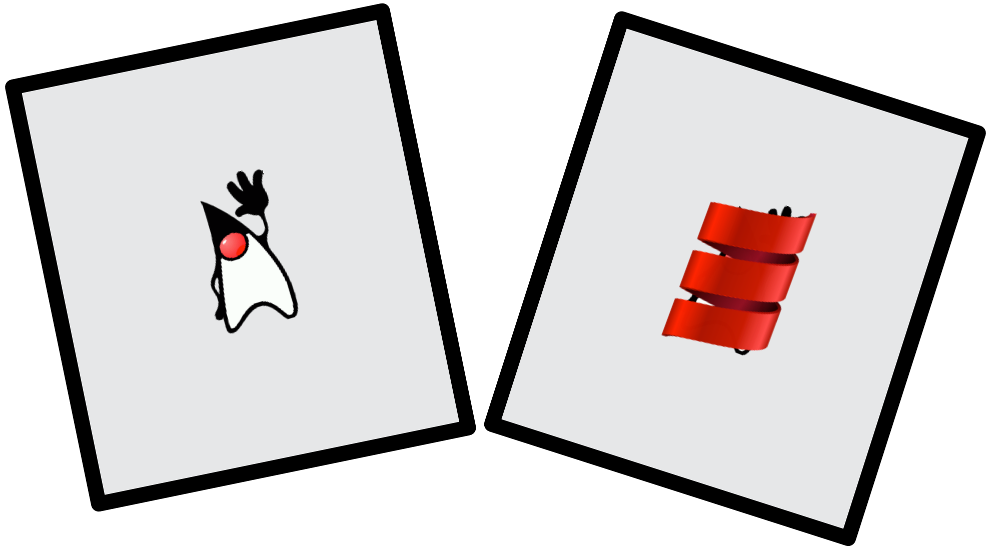
- My Experiences
- What to Expect
- Strategy Tips
- Concrete Tips

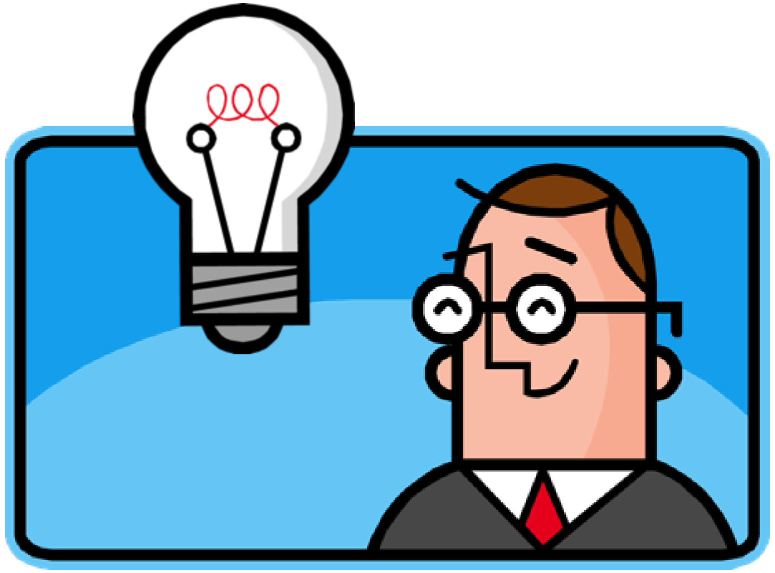
Module 4

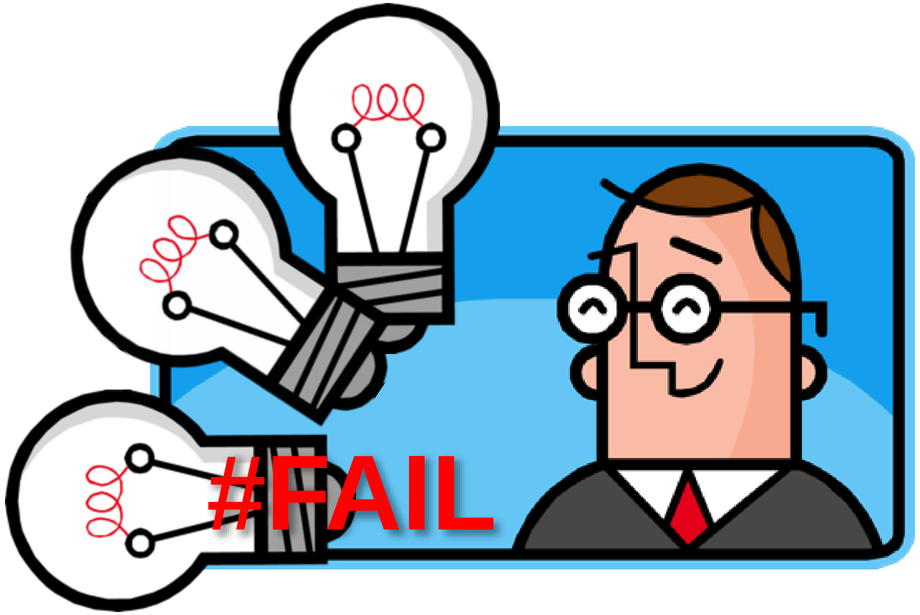
Adopting Scala

My Experiences



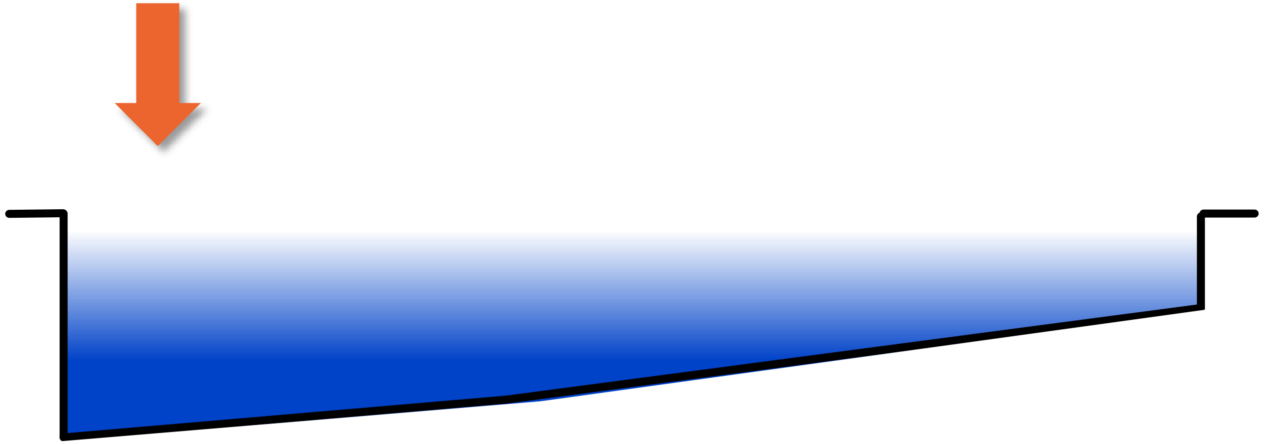


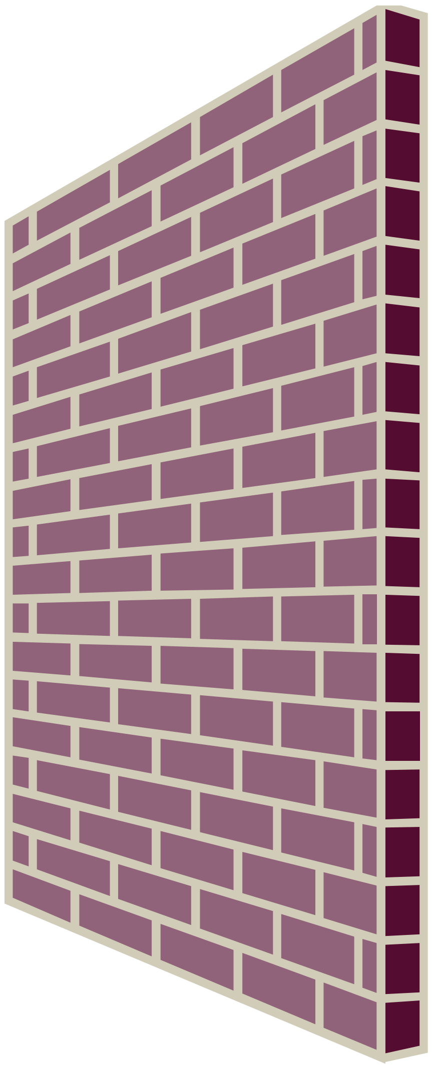


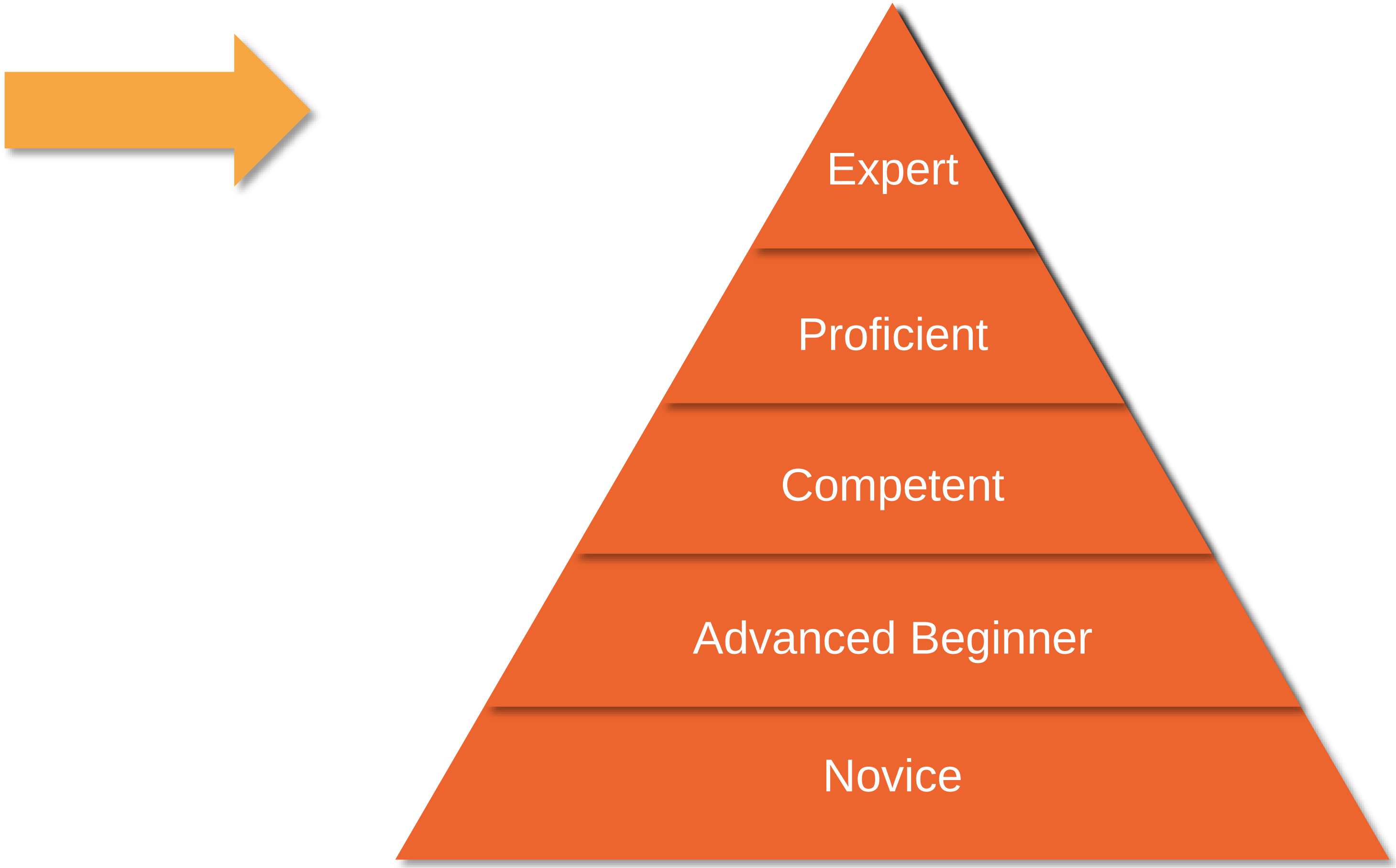

#FAIL

Real Problems = 👍

DEEP END







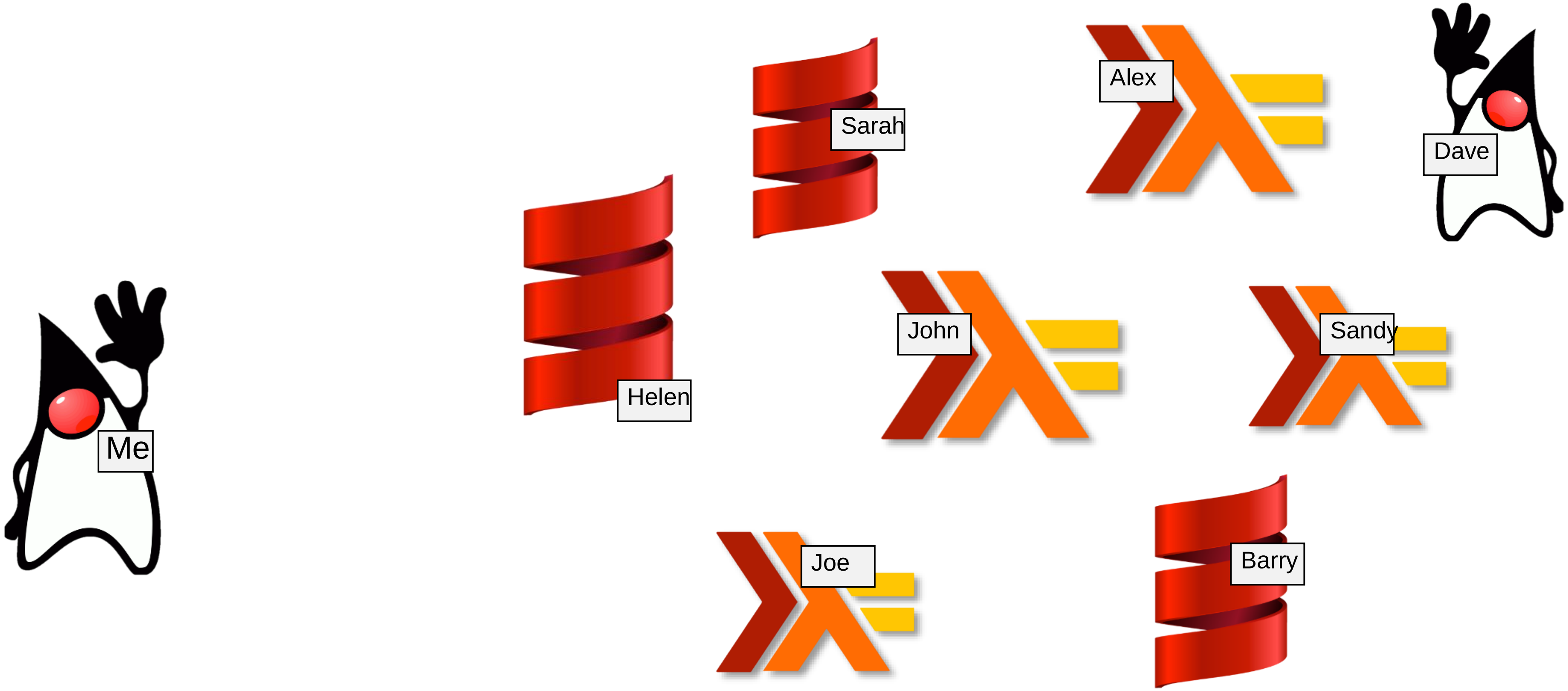
Expert

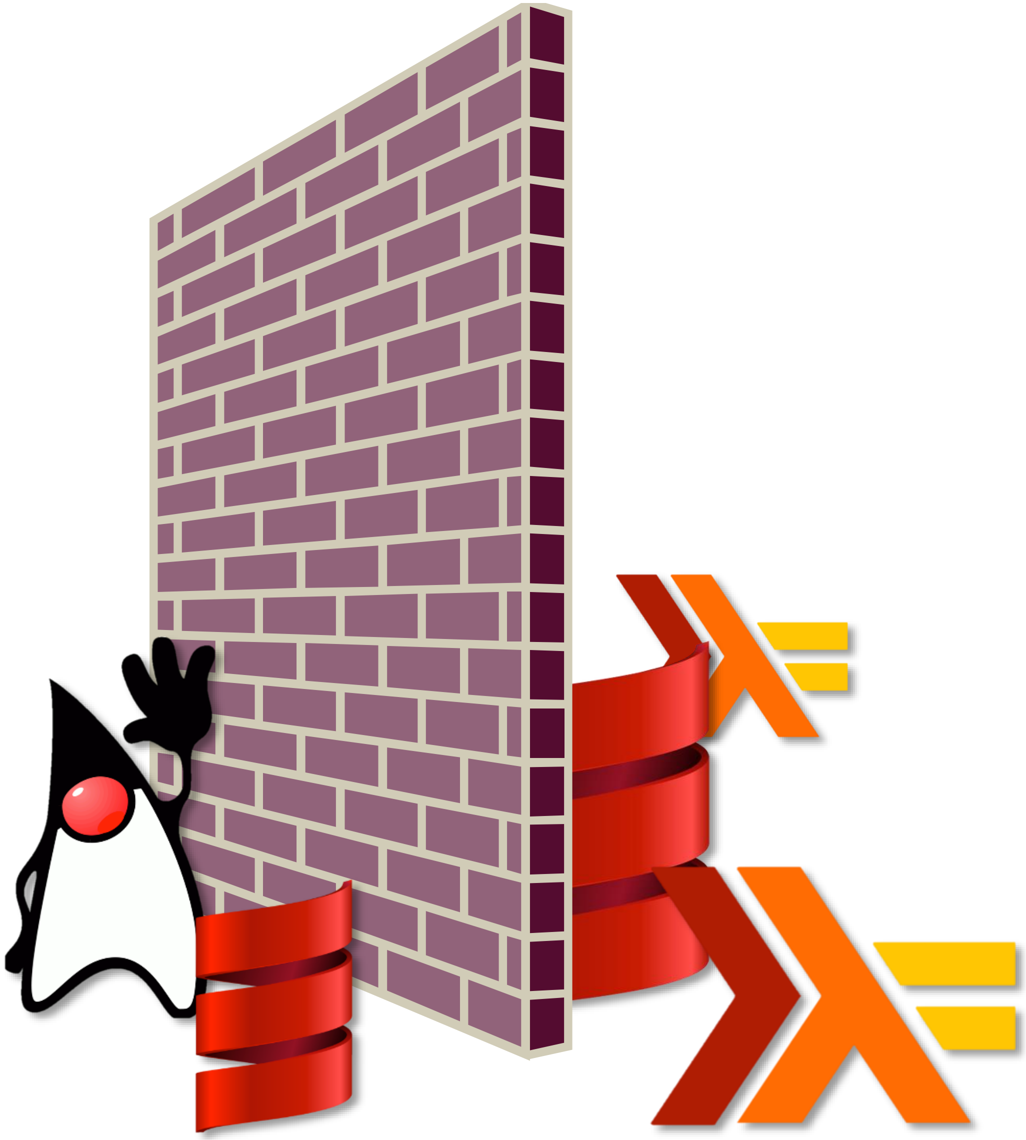
Proficient

Competent

Advanced Beginner

Novice


Sarah
Alex
Dave
Helen
John
Sandy
Me
Joe
Barry



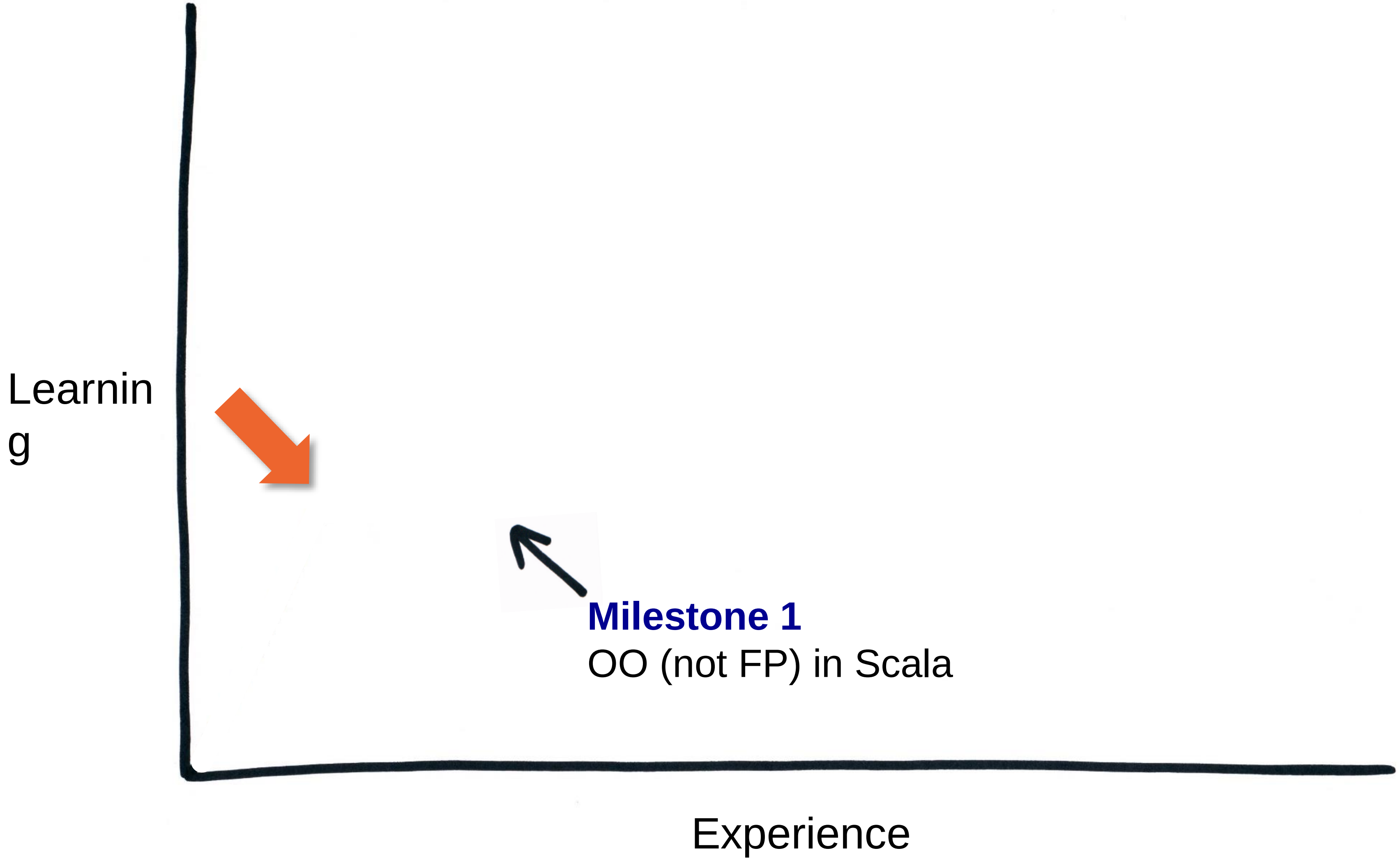
Module 4

Adopting Scala

What to Expect

Learning

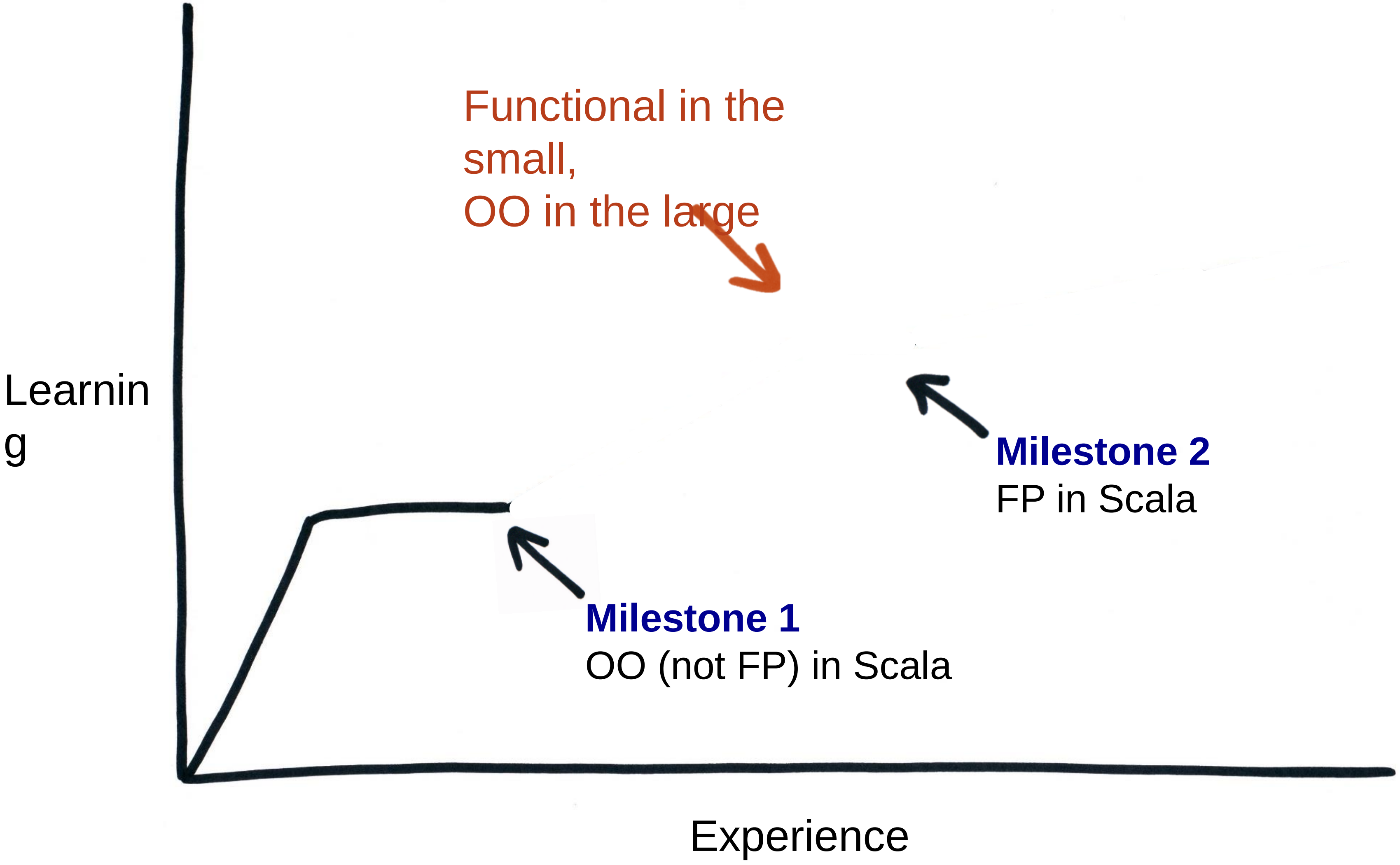
Experience



Learnin
g

Milestone 1
OO (not FP) in Scala

Experience



Functional in the small,
OO in the large

Learnin
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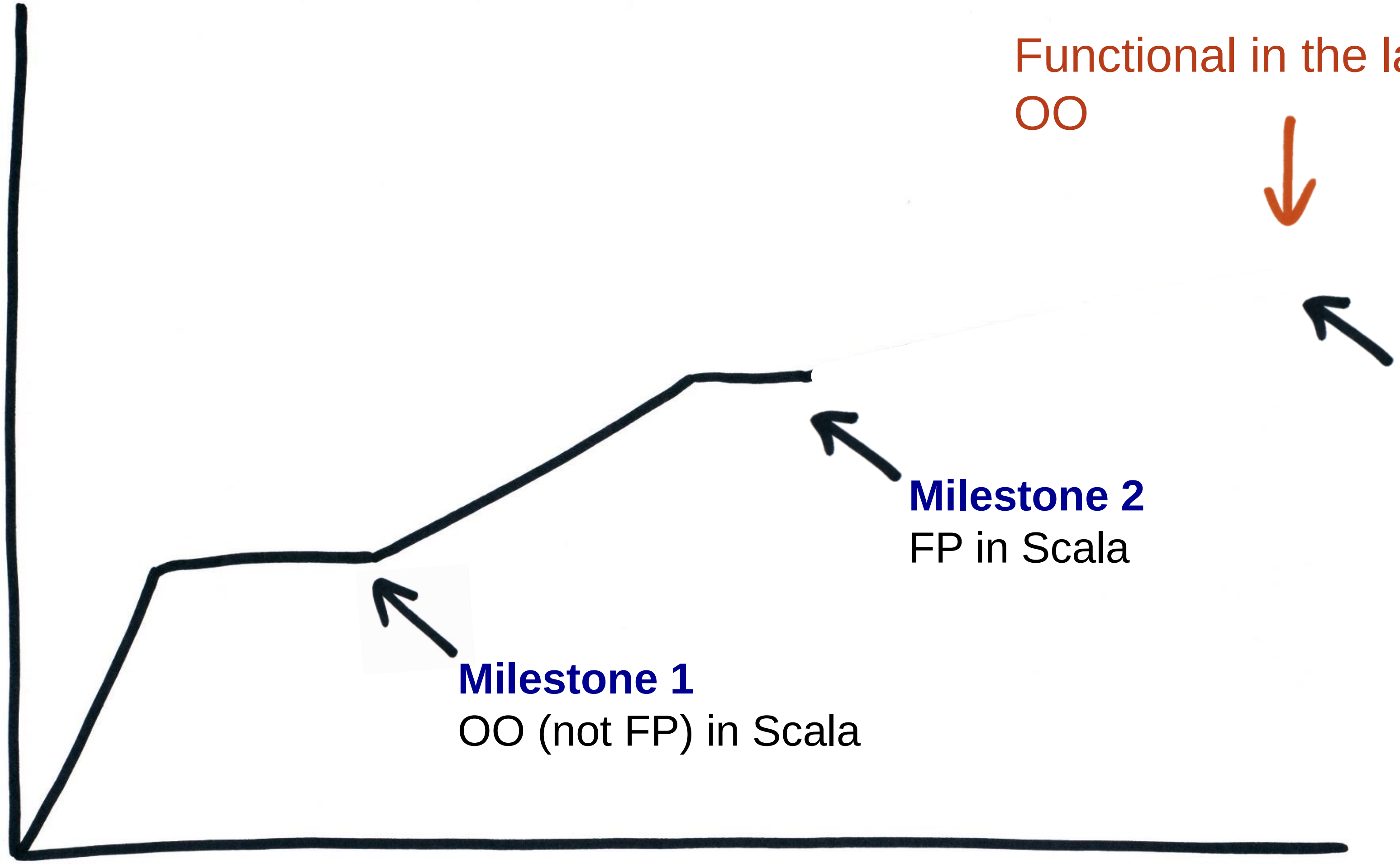
Milestone 2
FP in Scala

Milestone 1
OO (not FP) in Scala

Experience



Functional in the large, no OO

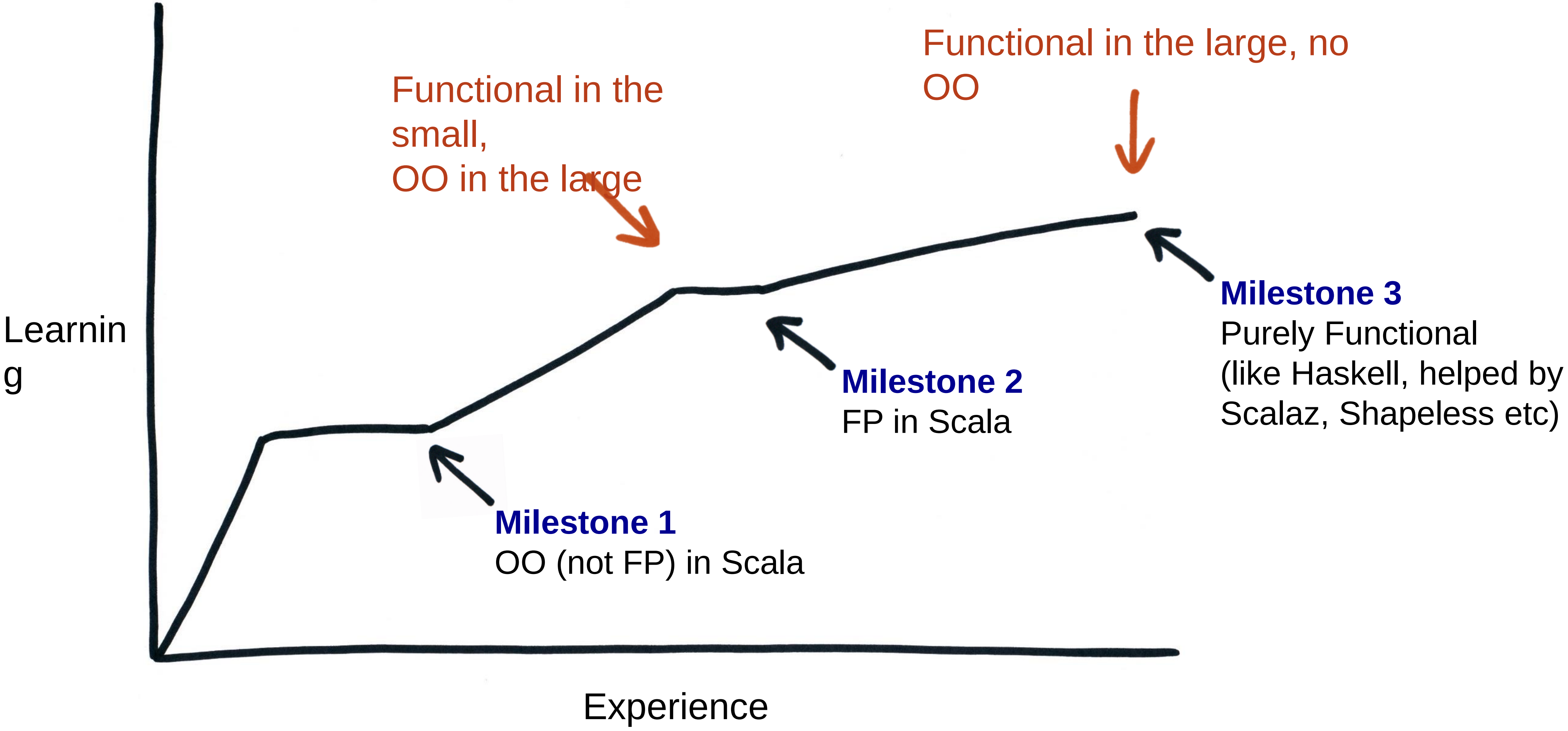
Learning

Milestone 1
OO (not FP) in Scala

Milestone 2
FP in Scala

Milestone 3
Purely Functional
(like Haskell, helped by
Scalaz, Shapeless etc)

Experience



Functional in the small,
OO in the large

Functional in the large, no OO

Milestone 1
OO (not FP) in Scala

Milestone 2
FP in Scala

Milestone 3
Purely Functional
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Learnin
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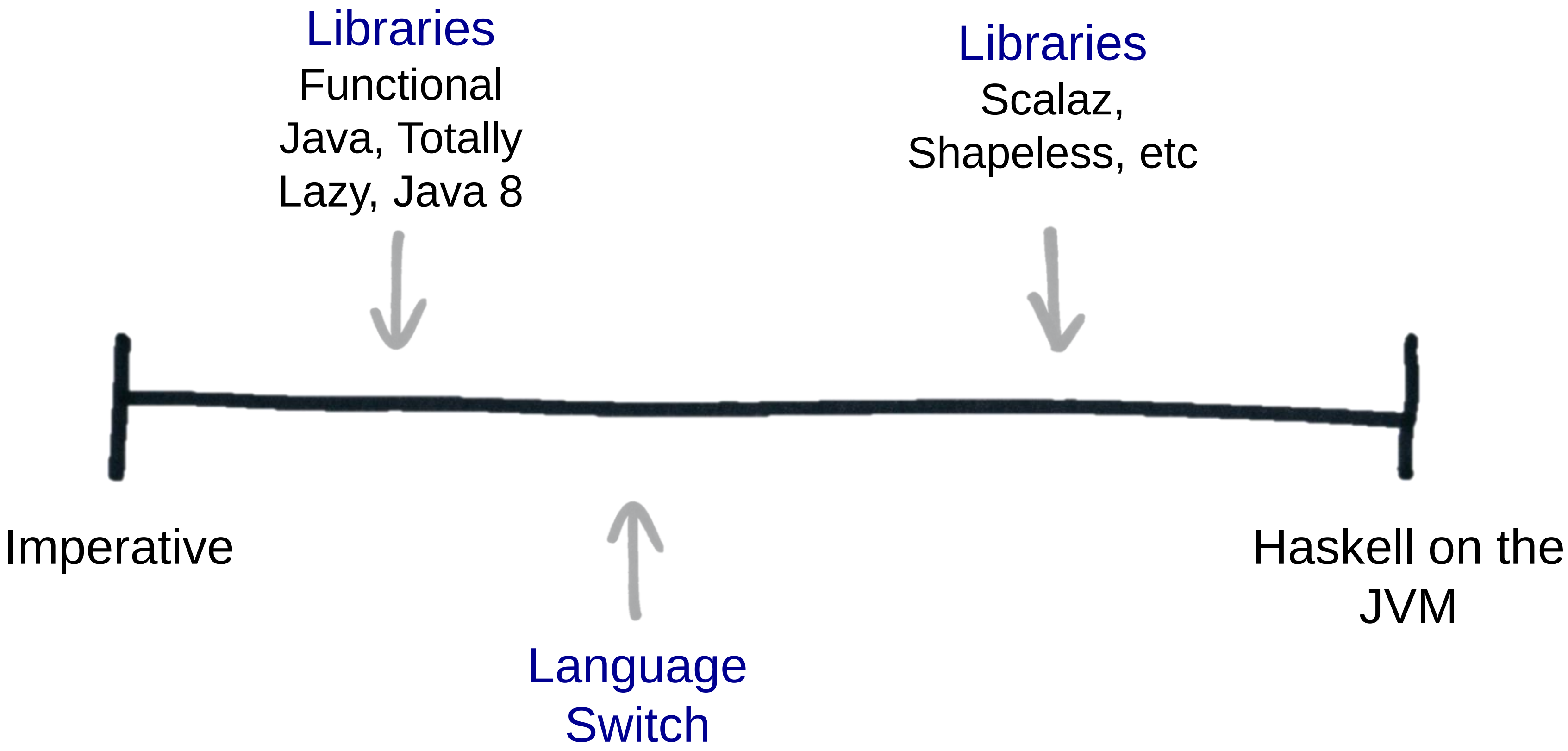
Experience



Libraries
Functional Java, Totally Lazy, Java 8

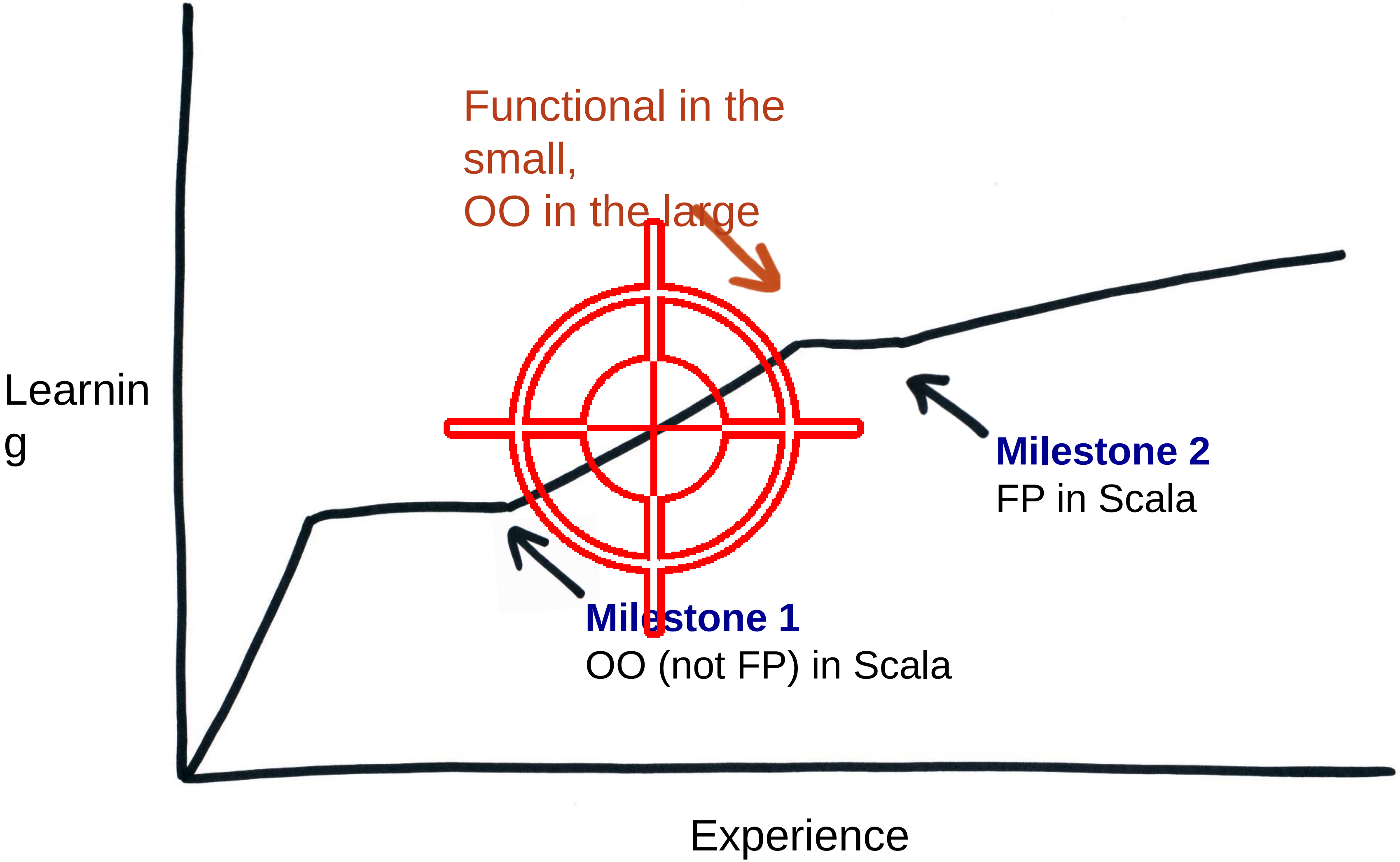
Libraries
Scalaz, Shapeless, etc

Imperative

Haskell on the JVM

Language Switch

Java to Functional Programming Continuum



Functional in the small,
OO in the large

Learnin
g

Milestone 2
FP in Scala

Milestone 1
OO (not FP) in Scala

Experience

Module 4

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Tips

1

Be Clear

2

Be Clear

Get Guidance

3

Be Clear

Get Guidance

Have a Plan

1

Be Clear

- What’s in it for me?
- Team Dynamic
- Set Expectations
- Review

2

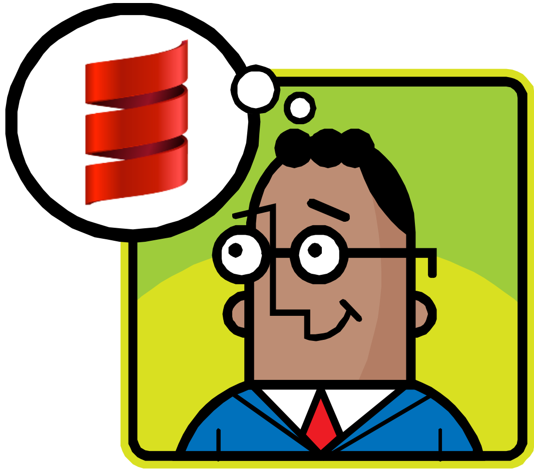
Get Guidance

- Hire an Expert
- Participate in the Community
- Look at Open Source

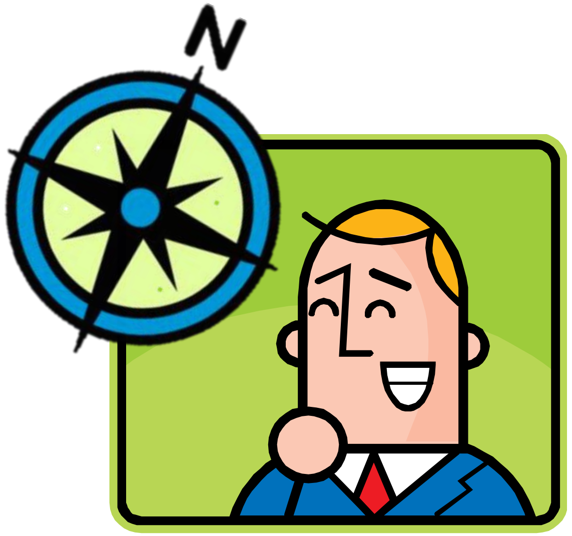
3

Have a Plan

- Think about your Goals
- How Functional?
- Commit



1



2

3

Module 4

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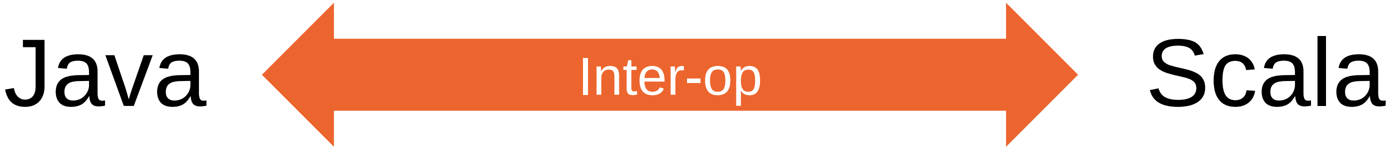
Convert your Codebase

Should I convert?

Yes!

50%



Java

Inter-op

Scala

SBT

Maven

Module4

Adopting Scala

Manage your Codebase

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

option!

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option!

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option!

option!

option!

option!

option!

Settle on Your own Conventions

```
result match {
  case Success(customer) => {
    email(customer)
  }
  case Failure(e) => {
    rollback
    throw e
  }
}
```

vs.

```
result.transform(
  email(_)
, {
  rollback
  throw _
})
```

```
result match {
  case Success(customer) => {
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```

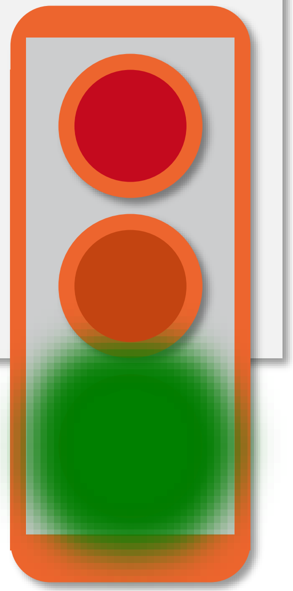

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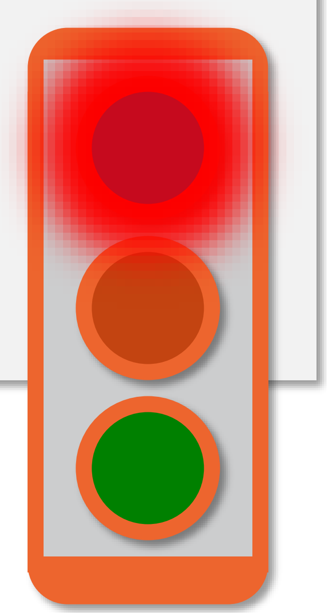

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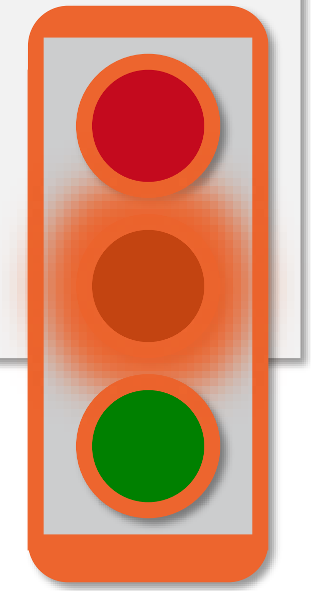

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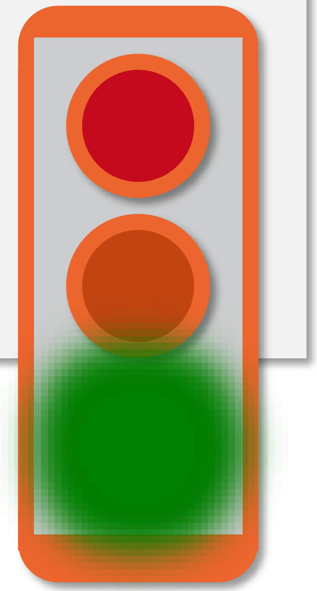


http://twitter.github.io/effectivescala/

Typesafe

http://docs.scala-lang.org/style/

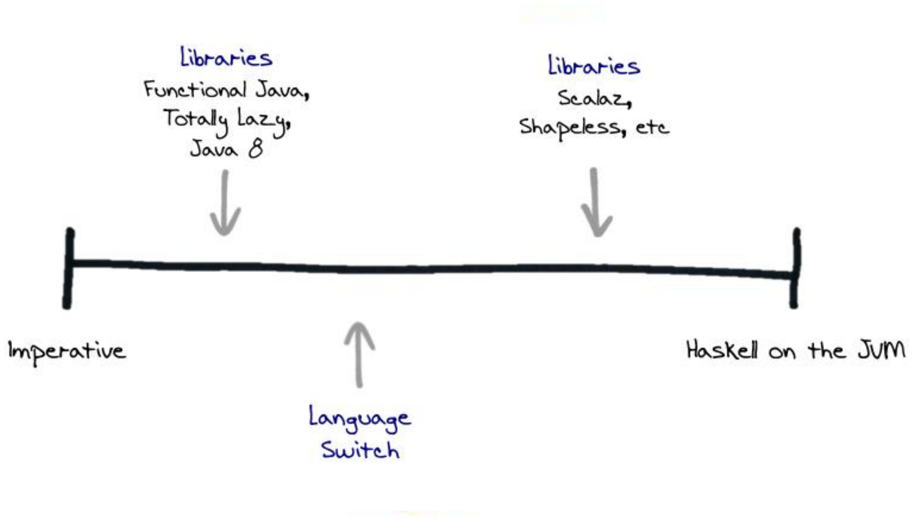
What to Avoid

- **SBT**
- **Scalaz**
- **“Fancy” Scala Libraries**
  - Dispatch
  - Anorm
  - Don’t forget Java Libraries

What to Avoid

- **SBT**
- **Scalaz**
- **“Fancy” Scala Libraries**
  - Dispatch
  - Anorm
  - Don’t forget Java Libraries
- **Lack of Consistency**

Other Challenges



- Compilation Speed
- IDE & Build Tools
- FP Continuum

Good Luck!