

# Building Distributed Data Applications

In [ ]: 1. Define set of types (classes, objects, **case** classes) required to support a school that offers multiple courses and each course can have multiple enrollments. A student can enroll in more than one course at a time. Create **type** of events (like Enrollment, Course enrollment, cancel a **class** etc.) and simulate handling those events as they happen. The application must maintain mutable state in each data **type**.

- a. Must use **case** classes
- b. Must use pattern matching to process various events
- c. Must have an **object** to provide the entry point to the application to start
- d. All events must be of a common **type**
- e. May use **for** or other list functions to **print** various courses offered at a given time, when an information request is presented

```
case class School
case class Course
case class Enrollment
case class Student

//create events - enrollments, course, cancel enrollment, cancel class
```

```
In [2]: var a = Array("")

a: Array[String] = Array("")
```

```
In [3]: a

res2: Array[String] = Array("")
```

```
In [4]: import scala.collection.mutable.ArrayBuffer  
var a = new ArrayBuffer[String]
```

```
import scala.collection.mutable.ArrayBuffer  
a: collection.mutable.ArrayBuffer[String] = ArrayBuffer()
```

```
In [5]: import scala.io.Source._  
val lines = scala.io.Source.fromFile("/Users/APARNA/Downloads/Project - D
```

```
java.io.FileNotFoundException: /Users/APARNA/Downloads/Project - Devel  
oper - apache-access-log (No such file or directory) (/Users/APARNA/Do  
wnloads/Project - Developer - apache-access-log (No such file or direc  
tory))
```

```
java.io.FileInputStream.open(Native Method)  
java.io.FileInputStream.<init>(FileInputStream.java:146)  
scala.io.Source$.fromFile(Source.scala:91)  
scala.io.Source$.fromFile(Source.scala:76)  
scala.io.Source$.fromFile(Source.scala:54)  
cmd4$$user$$anonfun$1.apply(Main.scala:24)  
cmd4$$user$$anonfun$1.apply(Main.scala:23)
```

```
In [ ]:
```