

Assignment 1: Hello World, etc.

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The dataset been used is from website: <https://www.kaggle.com/carolzhangdc/imdb-5000-movie-dataset>
Output:

The image displays two screenshots of an IDE (IntelliJ IDEA) showing the development and execution of a Scala application.

Top Screenshot: The IDE shows the file structure on the left, including the project 'assignment-helloworld', source files, and test files. The main editor displays the 'Ingest.scala' file with the following code:

```
def fromStrings(ws: Seq[String]): X
}

class Ingest[T: Ingestible] extends (Source => Iterator[T]) {
  def apply(source: Source): Iterator[T] = source.getLines.toSeq.map(e => implicitly[Ingestible[T]].fromStrings(e.split("\n").toList)).iterator
}

case class Movie(properties: Seq[String])

object Ingest extends App {
  trait IngestibleMovie extends Ingestible[Movie] {
    def fromStrings(ws: Seq[String]): Movie = Movie.apply(ws)
  }

  implicit object IngestibleMovie extends IngestibleMovie

  val ingester = new Ingest[Movie]()
  val source = Source.fromFile(args.toList match {
    case Nil => "movie_metadata.csv"
    case h :: _ => h
  })
  val kiwiMovies = for (m <- ingester(source); if (m.properties(20) == "New Zealand")) yield m
  println(kiwiMovies.size)
  // for (m <- ingester(source)) println(m.properties.mkString(", "))
  source.close()
}
```

The Run window at the bottom shows the execution output:

```
/Library/Java/JavaVirtualMachines/jdk1.8.0_161.jdk/Contents/Home/bin/java ...
15
Process finished with exit code 0
```

Bottom Screenshot: The IDE shows the file structure on the left, including the project 'assignment-helloworld', source files, and test files. The main editor displays the 'HelloWorld.scala' file with the following code:

```
package edu.neu.coe.csye7200.assthw

/**
 * Created by scalaprof on 8/25/16.
 *
 * This is the first part of assignment,
 * You should able to run this HelloWorld and
 * HelloWorldSpec under test folder,
 * Your submission should be the screenshot of
 * running HelloWorldSpec and pass the test.
 */

object HelloWorld extends App {
  def greeting = "Hello World!"
  println(greeting)
}
```

The Run window at the bottom shows the execution output:

```
/Library/Java/JavaVirtualMachines/jdk1.8.0_161.jdk/Contents/Home/bin/java ...
Hello World!
Process finished with exit code 0
```

Test Case Output:

The screenshot displays an IDE window with a Scala project named 'assignment-helloworld'. The main editor shows the file 'HelloWorldSpec.scala' with the following code:

```
19 def fromStrings(ws: Seq[String]): X
20 }
21
22 class Ingest[T: Ingestible] extends (Source => Iterator[T]) {
23   def apply(source: Source): Iterator[T] = source.getLines.toSeq.map(e => implicitly[Ingestible[T]].fromStrings(e.split("\\s="), ""))
24   .toList).iterator
25 }
26
27 case class Movie(properties: Seq[String])
28
29 object Ingest extends App {
30   trait IngestibleMovie extends Ingestible[Movie] {
31     def fromStrings(ws: Seq[String]): Movie = Movie.apply(ws)
32   }
33
34   implicit object IngestibleMovie extends IngestibleMovie
35
36   val ingester = new Ingest[Movie]()
37
38   val source = Source.fromFile(args.toList match {
39     case Nil => "movie_metadata.csv"
40     case h :: _ => h
41   })
42
43   val kiwiMovies = for (m <- ingester(source); if (m.properties(20)=="New Zealand")) yield m
44   println(kiwiMovies.size)
45   // for (m <- ingester(source)) println(m.properties.mkString(", "))
46   source.close()
47 }
```

The bottom panel shows the test results for 'HelloWorldSpec'. The output indicates that all tests passed successfully.

Run: HelloWorldSpec x

Tests passed: 1 of 1 test - 55 ms

All Tests Passed 55 ms

Testing started at 9:41 PM ...
/Library/Java/JavaVirtualMachines/jdk1.8.0_161-jdk/Contents/Home/bin/java "-javaagent:/Users/jimzhou/Library/Application Support/JetBrains/Toolbox/apps/IJ" ...

Process finished with exit code 0

Tests passed: 1 (moments ago)