

Suman Choudhary
TAS051
Advance Scala and Functional Programming

Output of the codes done in the Exercise :-

1 FuturesPromises.scala

```
/Library/Java/JavaVirtualMachines/adoptopenjdk-14.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/lib/idea_rt.jar=49444:/Applications/IntelliJ IDEA CE.app/Contents/bin -Dfile.encoding=UTF-8 -cp /Applications/IntelliJ IDEA CE.app/Contents/functional_programming_exercises/out/production/functional_programming_exercises:/Users/sumanchoudhary/.ivy2/cache/org.scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.scala-lang/scala-library/jars/scala-library-2.13.6.jar FuturesPromises
None
Waiting on the future
the meaning of life is 42
Mark poking Bill
SUCCESS
[producer] crunching numbers...
FIRST: 42
LAST: 45
generated 81
[producer] done
[consumer] I've received 42

Process finished with exit code 0
```

2 LazyEvaluations.scala

```
/Library/Java/JavaVirtualMachines/adoptopenjdk-14.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/lib/idea_rt.jar=49523:/Applications/IntelliJ IDEA CE.app/Contents/bin -Dfile.encoding=UTF-8 -cp /Applications/IntelliJ IDEA CE.app/Contents/functional_programming_exercises/out/production/functional_programming_exercises:/Users/sumanchoudhary/.ivy2/cache/org.scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.scala-lang/scala-library/jars/scala-library-2.13.6.jar LazyEvaluations
Hello
42
42
NO

Process finished with exit code 0
```

3

Monads.scala

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```
↑ /Library/Java/JavaVirtualMachines/adoptopenjdk-14.jdk/Contents/Home/bin/java -java.  
↓ .app/Contents/lib/idea_rt.jar=49561:/Applications/IntelliJ IDEA CE.app/Contents/t  
  /Applications/IntelliJ IDEA CE.app/Contents/functional_programming_exercises/out/  
  /sumanchoudhary/.ivy2/cache/org.scala-lang/scala3-library_3/jars/scala3-library_3  
  .scala-lang/scala-library/jars/scala-library-2.13.6.jar Monads  
  Fail(java.lang.RuntimeException: My own monad, yes!)  
  Today I don't feel like doing anything  
  
  Process finished with exit code 0
```

4 StreamsPlayground.scala

```
  .app/Contents/functional_programming_exercises/out/production/functional_programmin  
  .scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.  
  .6.jar StreamsPlayground  
  1  
  2  
  3  
  0  
  0  
  1  
  2  
  3  
  4  
  5  
  6  
  7  
  8  
  9  
  10
```

5. PartialFunction.scala

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```
/Library/Java/JavaVirtualMachines/adoptopenjdk-14.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/bin -Dfile.encoding=UTF-8 -cL
.app/Contents/functional_programming_exercises/out/production/functional_programming
.scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.
PartialFunction
999
false
Some(67)
None
67
234
```

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ThreadCommunication.scala

```
/Library/Java/JavaVirtualMachines/adoptopenjdk-14.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/bin -Dfile.encoding=UTF-8 -classpat
.app/Contents/functional_programming_exercises/out/production/functional_programming_exerc
.scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.ivy2/c
ThreadCommunication
[thread 1] waiting...
[thread 10] waiting...
[thread 9] waiting...
[thread 8] waiting...
[thread 7] waiting...
[thread 3] waiting...
[thread 6] waiting...
[thread 5] waiting...
[thread 2] waiting...
[thread 4] waiting...
[announcer] Rock'n roll!
[thread 1] hooray!
[thread 4] hooray!
[thread 2] hooray!
[thread 5] hooray!
[thread 6] hooray!
[thread 3] hooray!
[thread 7] hooray!
[thread 8] hooray!
[thread 9] hooray!
[thread 10] hooray!

Process finished with exit code 0
```

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Curried_partialfunction.scala

```
.jar=49713:/Applications/IntelliJ IDEA CE.app/Contents/bin -Dfile.encoding=UTF-8 -classpa
.app/Contents/functional_programming_exercises/out/production/functional_programming_exer
.scala-lang/scala3-library_3/jars/scala3-library_3-3.1.1.jar:/Users/sumanchoudhary/.ivy2/
curried_partiallyAppliedFunctions
8
8
10
2
3
4
Hello My name is Suman I am from rajasthan
Hello Suman What are you doing
List(3.14, 2.72, 1.00, 9.80, 0.00)
List(3.141593, 2.718282, 1.000000, 9.800000, 0.000000)
List(3.141592653590, 2.718281828459, 1.000000000000, 9.800000000000, 0.000000000001)

Process finished with exit code 0
```