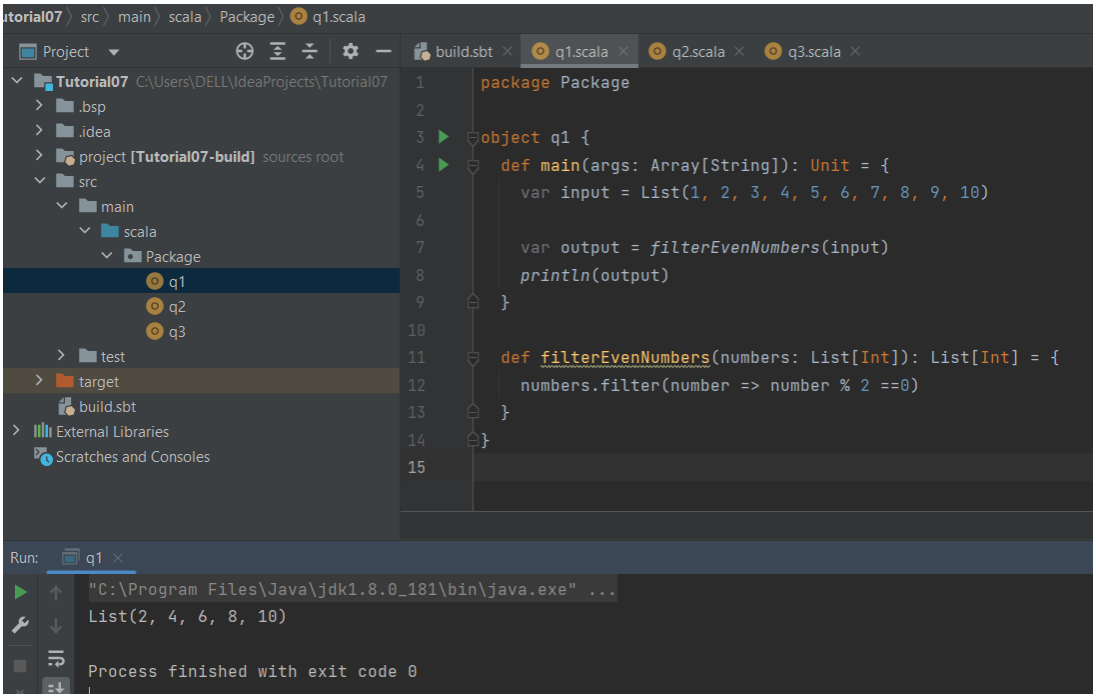
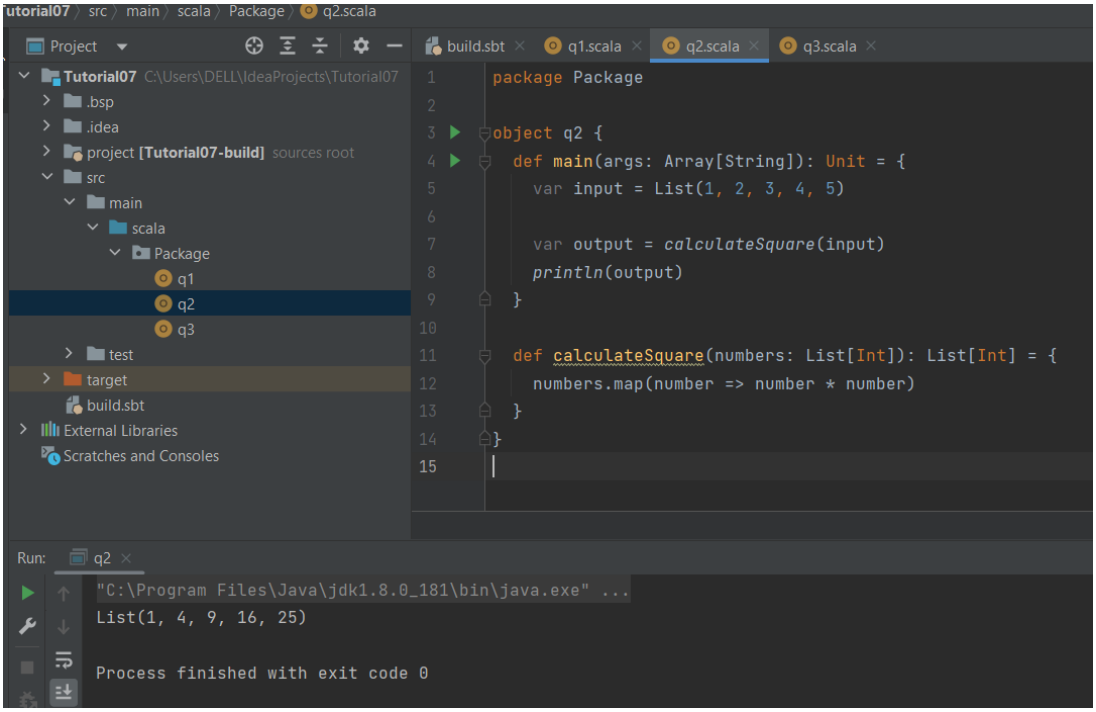
SCS 2204 - Functional Programming

Scala Tutorial – 7

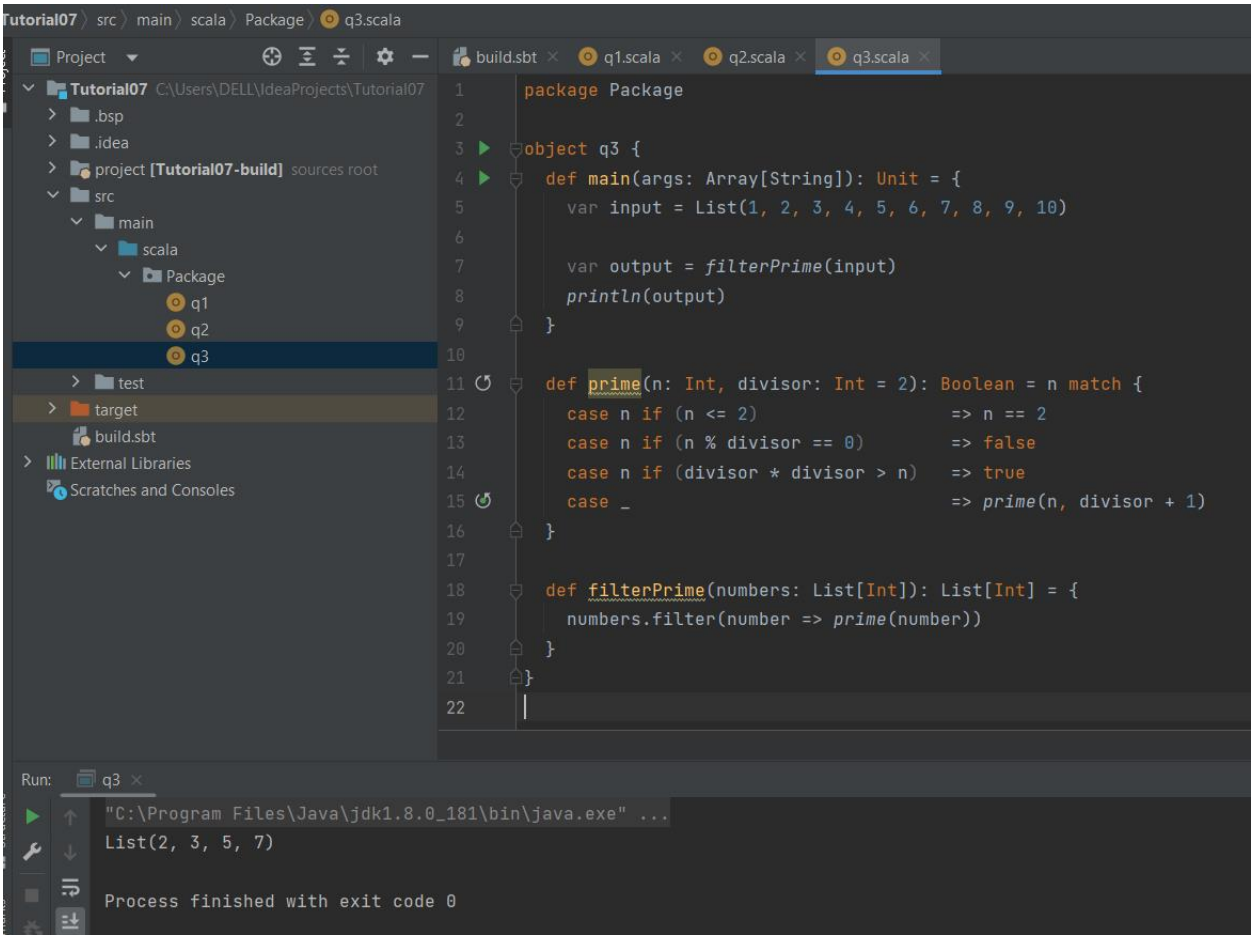
Question 01



Question 02



Question 03


Tutorial07 src main scala Package q3.scala
Project
Tutorial07 C:\Users\DELL\IdeaProjects\Tutorial07
.bsp
.idea
project [Tutorial07-build] sources root
src
main
scala
Package
q1
q2
q3
test
target
build.sbt
External Libraries
Scratches and Consoles
build.sbt
q1.scala
q2.scala
q3.scala
package Package
object q3 {
def main(args: Array[String]): Unit = {
var input = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
var output = filterPrime(input)
println(output)
}
def prime(n: Int, divisor: Int = 2): Boolean = n match {
case n if (n <= 2) => n == 2
case n if (n % divisor == 0) => false
case n if (divisor * divisor > n) => true
case _ => prime(n, divisor + 1)
}
def filterPrime(numbers: List[Int]): List[Int] = {
numbers.filter(number => prime(number))
}
}
Run: q3
"C:\Program Files\Java\jdk1.8.0_181\bin\java.exe" ...
List(2, 3, 5, 7)
Process finished with exit code 0