Scala Assignment

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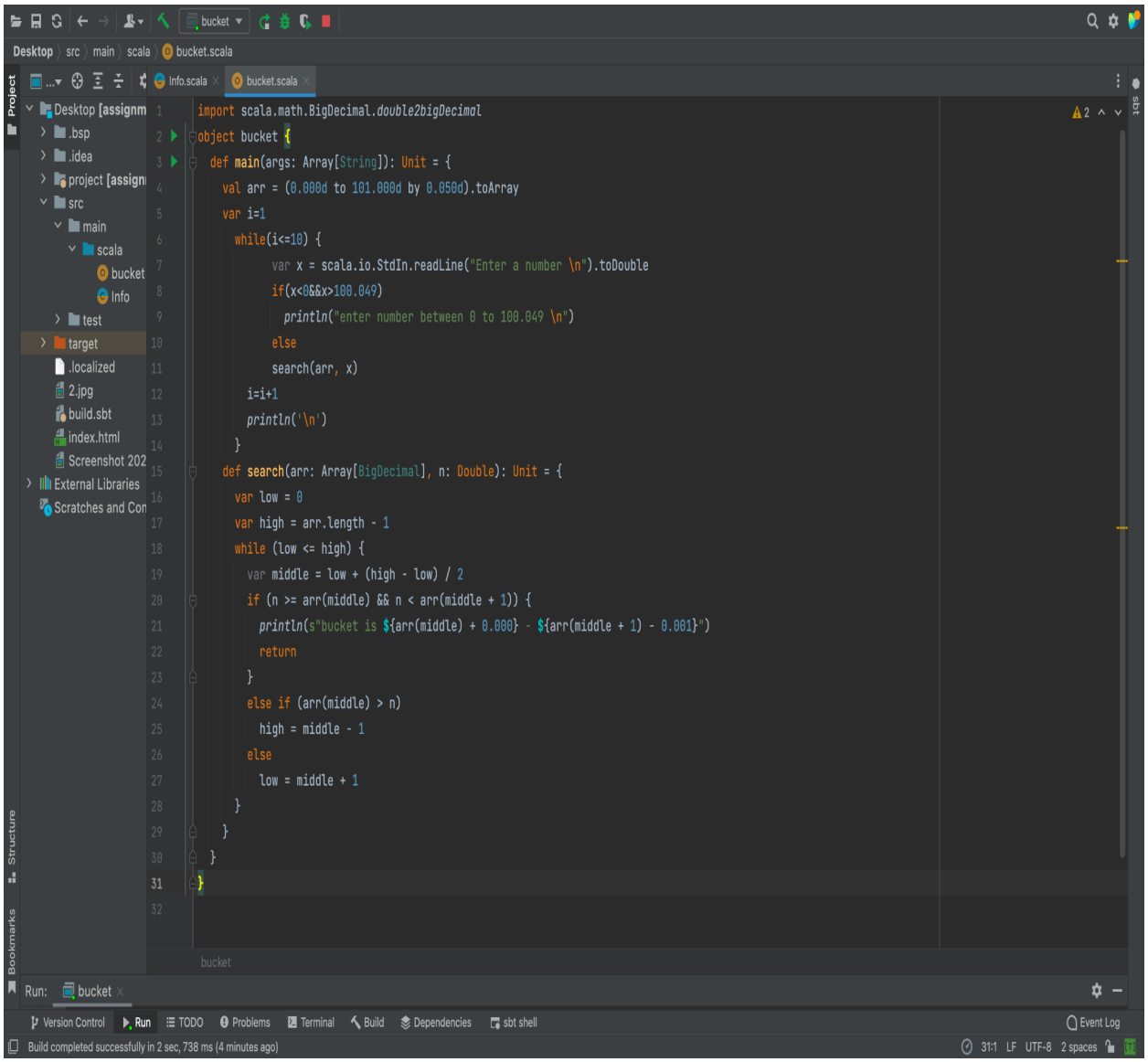
Task-1)Bucketise the given array[Double] into buckets having range interval (x, x+0.049).

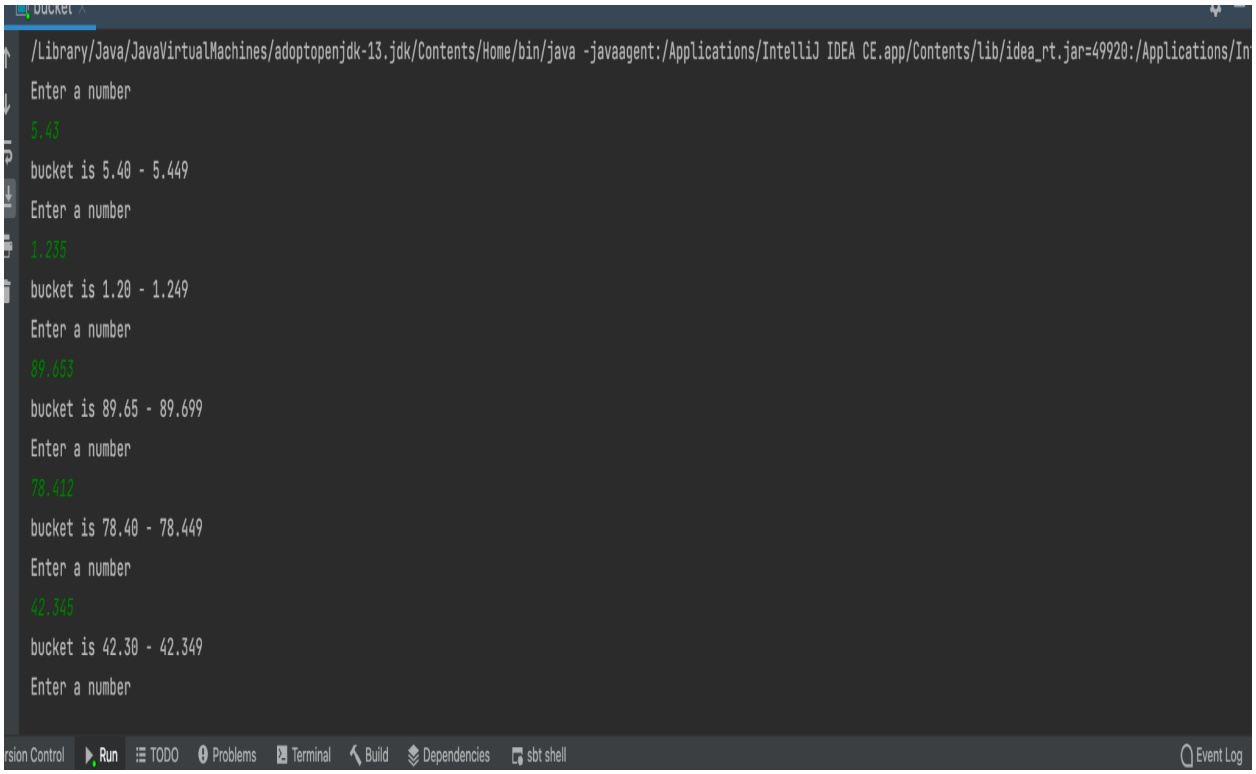
0.000 - 0.049
0.050 - 0.099
0.100 - 0.149
0.150 - 0.199
0.200 - 0.249
0.250 - 0.299
0.300 - 0.349
0.350 - 0.399
...
...
100.000 - 100.049

Sample -
12.05, 12.03, 10.33, 11.45, 13.50
Output- [12.050-12.099, 12.050-12.099, 10.300-10.349, 11.450-11.499, 13.500-13.549]

Code:


bucket
Desktop src main scala bucket.scala
Info.scala
bucket.scala
import scala.math.BigDecimal.double2bigDecimal
object bucket {
def main(args: Array[String]): Unit = {
val arr = (0.000d to 101.000d by 0.050d).toArray
var i=1
while(i<=10) {
var x = scala.io.StdIn.readLine("Enter a number \n").toDouble
if(x<0&&x>100.049)
println("enter number between 0 to 100.049 \n")
else
search(arr, x)
i=i+1
println('\n')
}
def search(arr: Array[BigDecimal], n: Double): Unit = {
var low = 0
var high = arr.length - 1
while (low <= high) {
var middle = low + (high - low) / 2
if (n >= arr(middle) && n < arr(middle + 1)) {
println(s"bucket is ${arr(middle) + 0.000} - ${arr(middle + 1) - 0.001}")
return
}
else if (arr(middle) > n)
high = middle - 1
else
low = middle + 1
}
}
}
}
Project
Structure
Bookmarks
Run: bucket
Version Control
Run
TODO
Problems
Terminal
Build
Dependencies
sbt shell
Event Log
Build completed successfully in 2 sec, 738 ms (4 minutes ago)
31:1 LF UTF-8 2 spaces

Output:


bucket
/Library/Java/JavaVirtualMachines/adoptopenjdk-13.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/lib/idea_rt.jar=49920:/Applications/In
Enter a number
5.43
bucket is 5.40 - 5.449
Enter a number
1.235
bucket is 1.20 - 1.249
Enter a number
89.653
bucket is 89.65 - 89.699
Enter a number
78.412
bucket is 78.40 - 78.449
Enter a number
42.345
bucket is 42.30 - 42.349
Enter a number
rsion Control
Run
TODO
Problems
Terminal
Build
Dependencies
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Event Log

Q2) For given players statistics..

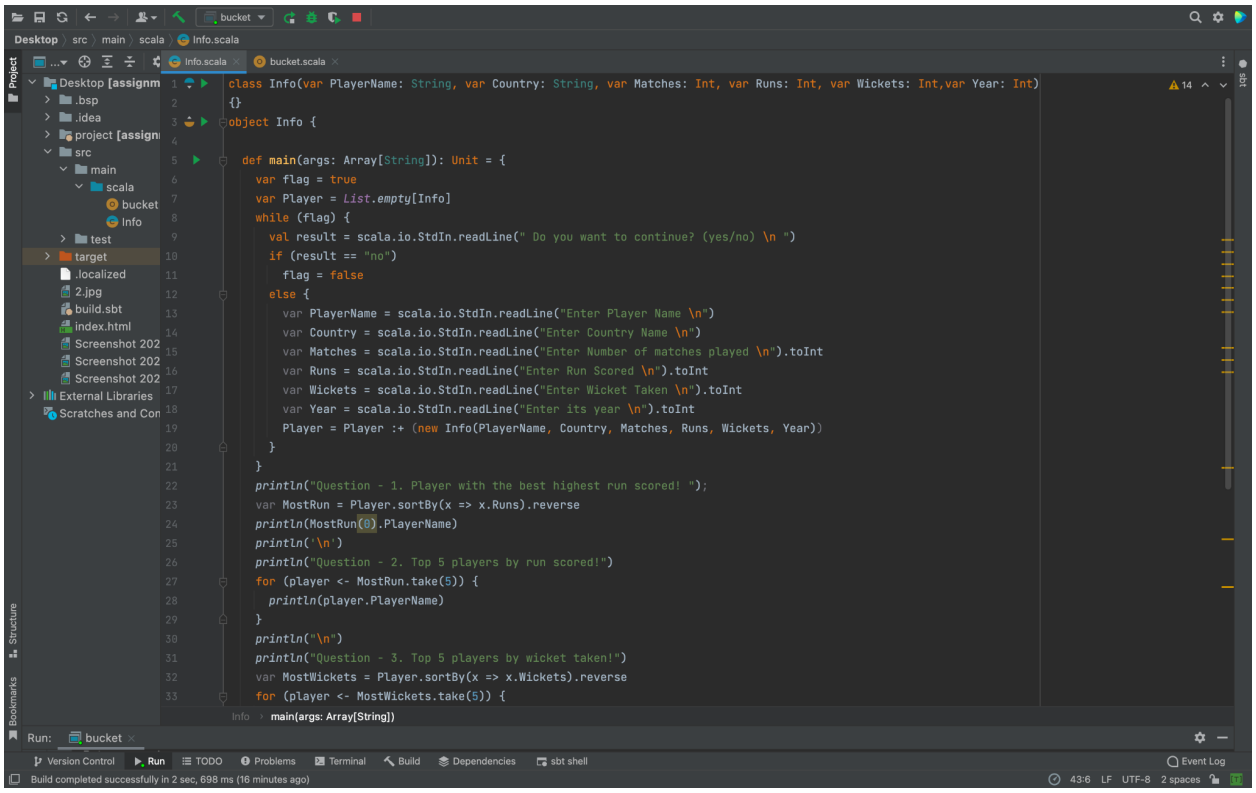
Found the below -

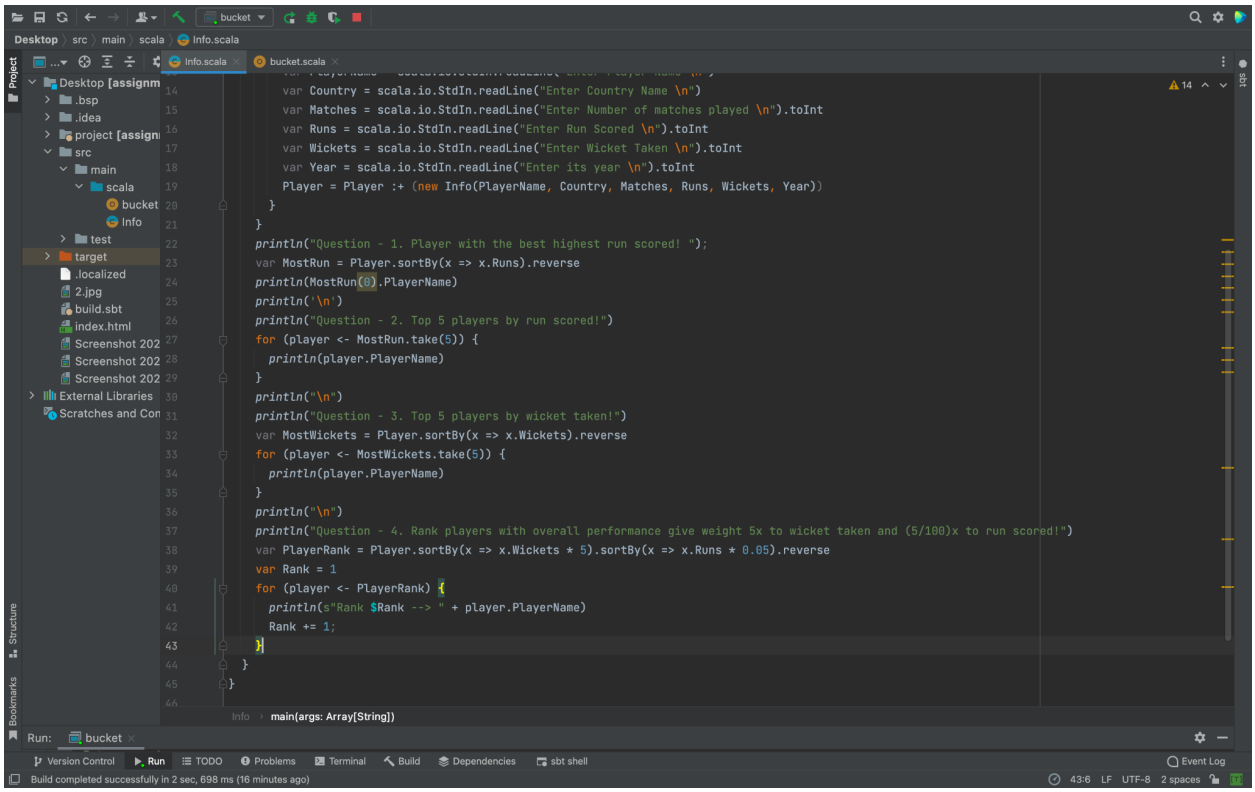
1. Player with the best highest run scored.
2. Top 5 players by run scored.
3. Top 5 players by wicket taken.
4. Rank players with overall performance give weight 5x to wicket taken and (5/100)x to run scored.

Sample -

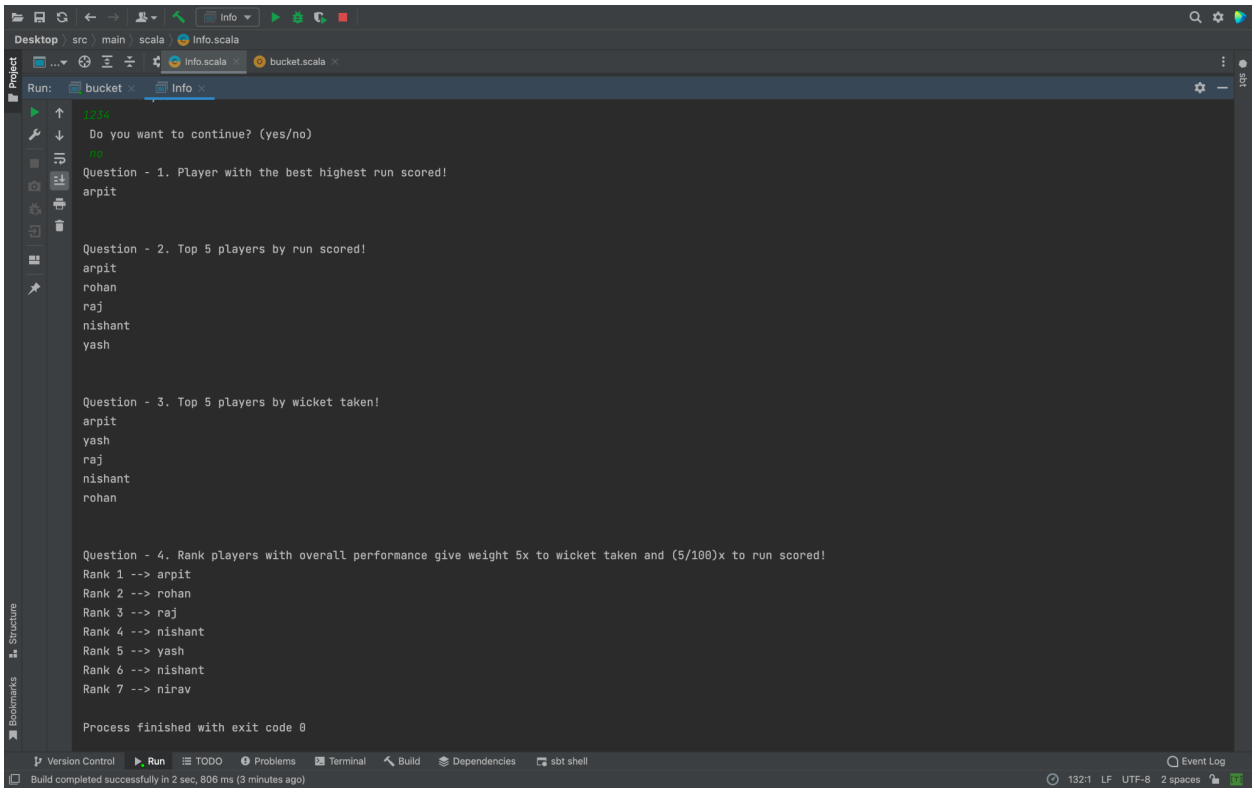
Year, PlayerName, Country, Matches, Runs, Wickets
2021, Sam, India, 23, 2300, 3
2021, Ram, India, 23, 300, 30
2021, Mano, India, 23, 300, 13

Code:




bucket
Desktop src main scala Info.scala
Info.scala
bucket.scala
Project
Structure
Bookmarks
Desktop [assignm
.bsp
.idea
project [assign
src
main
scala
bucket
Info
test
target
.localized
2.jpg
build.sbt
index.html
Screenshot 202
Screenshot 202
Screenshot 202
External Libraries
Scratches and Con
var Country = scala.io.StdIn.readLine("Enter Country Name \n")
var Matches = scala.io.StdIn.readLine("Enter Number of matches played \n").toInt
var Runs = scala.io.StdIn.readLine("Enter Run Scored \n").toInt
var Wickets = scala.io.StdIn.readLine("Enter Wicket Taken \n").toInt
var Year = scala.io.StdIn.readLine("Enter its year \n").toInt
Player = Player :+ (new Info(PlayerName, Country, Matches, Runs, Wickets, Year))
}
}
println("Question - 1. Player with the best highest run scored! ");
var MostRun = Player.sortBy(x => x.Runs).reverse
println(MostRun(0).PlayerName)
println('\n')
println("Question - 2. Top 5 players by run scored!")
for (player <- MostRun.take(5)) {
println(player.PlayerName)
}
println("\n")
println("Question - 3. Top 5 players by wicket taken!")
var MostWickets = Player.sortBy(x => x.Wickets).reverse
for (player <- MostWickets.take(5)) {
println(player.PlayerName)
}
println("\n")
println("Question - 4. Rank players with overall performance give weight 5x to wicket taken and (5/100)x to run scored!")
var PlayerRank = Player.sortBy(x => x.Wickets * 5).sortBy(x => x.Runs * 0.05).reverse
var Rank = 1
for (player <- PlayerRank) {
println(s"Rank $Rank --> " + player.PlayerName)
Rank += 1;
}
}
}
Info main(args: Array[String])
Run: bucket
Version Control
Run
TODO
Problems
Terminal
Build
Dependencies
sbt shell
Event Log
Build completed successfully in 2 sec, 698 ms (16 minutes ago)
43:6 LF UTF-8 2 spaces

Output:


Info
Desktop src main scala Info.scala
Info.scala
bucket.scala
Run: bucket Info
1214
Do you want to continue? (yes/no)
no
Question - 1. Player with the best highest run scored!
arpit
Question - 2. Top 5 players by run scored!
arpit
rohan
raj
nishant
yash
Question - 3. Top 5 players by wicket taken!
arpit
yash
raj
nishant
rohan
Question - 4. Rank players with overall performance give weight 5x to wicket taken and (5/100)x to run scored!
Rank 1 --> arpit
Rank 2 --> rohan
Rank 3 --> raj
Rank 4 --> nishant
Rank 5 --> yash
Rank 6 --> nishant
Rank 7 --> nirav
Process finished with exit code 0
Version Control
Run
TODO
Problems
Terminal
Build
Dependencies
sbt shell
Event Log
Build completed successfully in 2 sec, 806 ms (3 minutes ago)
132:1 LF UTF-8 2 spaces