Model::Main

Calculator

-result: Double
-maxScores: LinkedList<Double>
-rowScores: LinkedList<Double>
-percentages: LinkedList<Double>

+calculate()
+sizeOfMaxScores()
+sizeOfRowScores()
+sizeOfPercentages()
+getMaxScores()
+getRowScores()
+getPercentages()
+getResult()
+addMaxScores(Double)
+addRowScores(Double)
+addPercentages(Double)
+clearMaxScores()
+clearRowScores()
+clearPercentages()

Main

+main()

1

0...*

1

0...*

1

0...*

1

LinkedList<Double>

-size: int

+size()
+add(Double)
+get(int)
+clear()

«entity»
Scanner

+nextDouble()

Descriptions:

Weighted grading application is used to calculate a total score based on the max scores, row scores and percentages users input.

There are four classes in weighted grading application: Main, Calculator, Scanner and LinkedList.

Calculator has three LinkedList type attributes to separately store max scores, row scores and percentages, and one Double variable result to store the final score. It has one operation named calculate to execute the calculation.

Main calls a Scanner to receive user input then pass the input to Calculator, and then Calculator execute its operation-calculate() to get the result.

All the attributes and their types of each class have been showed above.