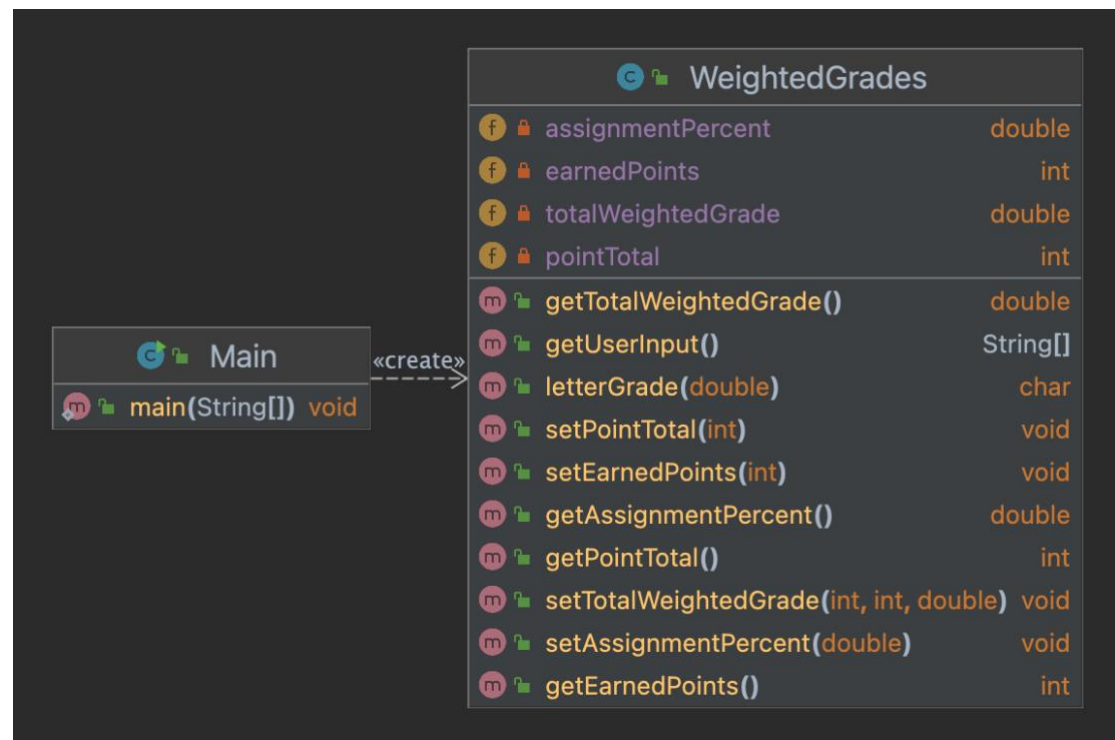


Assignment 5

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Section 08



ArrayList
add()
size()
get()

Scanner
useDelimiter()
nextLine()
nextInt()

Descriptions of the weighted grading application and the class(es) and attributes:

The weighted grading application is used to calculate the weighted grade of student assignments.

- **Class**

1. The Main class is used to run this application.
2. The WeightedGrades class is used to define methods and attributes that need to calculate the weighted grades of student assignments.

- **Attributes (Field)**

1. `assignmentPercent`: how much the assignment weight
2. `totalWeightedGrade`: the student's total weighted grade based on earned grades, total points, assignment percent

3. pointTotal: the total point of the assignment
4. earnedPoint: the points that the student earned in each assignment

- **Method**

Main

1. main(String[]): the main method for running the weighted grade application

WeightedGrades

1. letterGrade(double): get the letter grade (A, B, C, D, E, F) based on the weighted grade
2. getTotalWeightedGrade(): get total weighted grade
3. setTotalWeightedGrade(int, int, double): set student's total weighted grade
4. getUserInput(): get user input value and separated by space and comma
5. getPointTotal(): get the total point of the assignment
6. getAssignmentPercent(): get the percentage of the assignment (%)
7. setPointTotal(int): set the total point of the assignment
8. getEarnedPoints(): get the student's earned points of the assignment
9. setEarnedPoints(int): set the student's earned points of the assignment
10. setAssignmentPercent(double): set the percentage of the assignment (%)

- **ArrayList**

1. add(): add an item into the ArrayList
2. size(): the length of the ArrayList
3. get(): add an item from the ArrayList

- **Scanner**

1. useDelimiter(): set the delimiting pattern of the Scanner which is in using
2. nextLine(): advance the scanner past the current line and return the input that was skipped
3. nextInt(): read in a string of digits (characters) and convert them into an int type

Please provide a one-page discussion of the limitations of our weighted grading application and how in future iterations of the application it could be improved.

1. Only one group of student grades can be entered at a time. Also, there is no entry of student names.
 - ➔ Two additional user inputs can be added for "How Many Students" and "Student Name". Use a database to store these grades and student information.
2. If the number of entered total points / earned points does not match the number of assignments, the application will exit.
 - ➔ The better way is to display the error message and have the user enter it again until the user enters the correct number of total points of assignments.
3. If the entered grades are not separated by ",", the app will incorrectly count the number of entered grades. resulting in the error message mentioned above (point 2).
 - ➔ Handling the user input data with more considerations. I can use an input check or use a prompt message to instruct the user to type in the correct way.