Java (OOP) Specification Document

The Math Quiz  
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The Quiz is launched by running QuizDriver.java.  
  
The main method is run first, this creates a JFrame called quizIntro.  
This JFrame spawns in a GUI window with a title and a label that welcomes the user to the Math Quiz.  
It gives the user a start button to press to start the quiz.  
When this button is pressed the code moves on to execute the method in QuizUIJOP and it sets the JFrame visibility to false so it is gone from the screen.  
  
QuizUIJOP runs the actual quiz.  
When called from the main method, It uses the createQuiz method from QuizGenerator class to create an arraylist of questions from the QandA.txt file stored in the project.  
The arraylist is then stored and ran through using a for loop in QuizUIJOP.  
  
The loop works by using a counter called qNum, which is used to cycle the loop until the value of qNum is equal to the size of the arraylist, AKA until there are no more questions to loop into.  
  
Each time the loop goes around, a message dialog is brought up to ask the question and take in the answer from the user. Then the answer inputted by the user is compared to the answer from the corresponding index of the arraylist.  
If the answer is correct then the variable ansCorrect is incremented by 1.  
  
When the loop breaks then the user is shown a thank you dialog box. It has their username and the amount of answers they got right and the amount of questions in the quiz.

The code then calls the method QuizResult, which is a class that inherits from the Results interface. It passes in the values for username, ansCorrect and qNum to this method.  
QuizResults is meant to return the percentage of answers the user got correct but sadly I could not get it to work. For some reason it returns 100% if you get all the questions correct but for every other number of correct answers it always returns 0%.  
  
After this method call, the QuizUIJOP class calls the writeResults method, passing in the username, ansCorrect and percent variables into writeResults.  
  
writeResults() is in charge of appending the new user’s user name, amount of correct answers, total numbers of questions and also the percentage into the Results.txt file stored in the project.

The Questions class is in charge of taking the arraylist produced in QuizGenerator and storing each part of each line in the arraylist as a separate variable.  
Questions is a composite class with QuizGenerator.  
  
GenericQuizGenerator is an abstract class. It has the abstract method getData() that links it to the getData() method within QuizGenerator.