Tyler Harrison’s Contributions

I have contributed several things to the project. I wrote the entirety of Homework.scala with the exception of the calculateGrade function. Homework had to be its own class to allow us to have multiple attributes for a single homework as well as have multiple homeworks. The Homework class has six private variables. These variables are the name of the homework, the due date of the assignment, the time the assignment was completed, the date the assignment was completed, the grade given to the completed assignment, and a simple true/false for whether the assignment has been completed or not. The Homework class also contains getters and setters for each variable to allow it to be set through methods other than the markHomeworkCompleted method in main. Speaking of markHomeworkCompleted, I wrote that as well. markHomeworkCompleted is a polymorphic method because it would allow the coders and the users to pick a homework and mark it as completed in a variety of ways. This variety could be a simple true/false, or it cold be used to define the date the assignment was completed via a string input. It could also be used to define the grade given to the assignment by inputting a double. Finally, using an integer as an input gives it the time of day that the assignment was completed. If the input is not Boolean, string, double, or integer, the method, the compiler does not compile and if the input it given in run-time, then the method handles it by declaring it a valid input and exiting the execution. markHomeworkCompleted also has two supporting methods. The first supporting method is extractDouble. extractDouble takes the input of markHomeworkCompleted and converts it into a double. This was necessary because the input for markHomeworkCompleted is an ambiguous type and must be converted using java.lang.number. This method is a modified version of code found of StackOverflow posted by user “Adowrath” in the thread “How to convert Any number to Double” from 2017. The modifications to the code include removing the second case, changing the method input type, changing Some(n.doubleValue()) to just n.doubleValue(), and changing Option[Double] to just Double. The second supporting method serves a similar purpose as extractDouble. extractInt converts an input of type A to int. This was a modified version of extractDouble and as a result has indirect origins in the same place as extractDouble. At the time of writing, there is also test code in the main method that was used to test the Homework class as well as the markHomeworkComplete method as well as its supporting methods.