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**Homework Schedule Design Idea**

**Professor Zhao**

**BCS 450 Capstone Project**

**Homework Class**

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 the variables to be used externally. The majority of the use for the variables that are not the due date and the homework name comes from markHomeworkCompleted in main.scala but can of course be used in other methods.

**HomeworkSchedule Class**

HomeworkSchedule is the class that holds all of a student’s homeworks, e.g its homework schedule. It contains an array that acts sort of like a hash table. However, we did not implement a hash table for this project. A person can retrieve a homework by its name and its due date which serves as the homework’s key (In database terms: composite keys). HomeworkSchedule has a currying function which adds homeworks to the homework schedule. There is also another currying function: getHW, which retrieves a homework in the schedule using its name and due date as the key. The class also has a size variable which keeps track of the amount of homeworks that is in the schedule.

