Criterion A: planning

Defining the problem:

The scenario:

My client is Mrs.Jung Im Kim, my mother. Mrs.Kim is an avid golfer, who goes out to play golf with her peers several days of the week. The problem she experiences is that it is hard for her to keep track of her past score cards, since score papers are easily lost and hard to organize. In addition, payment process at the golf course is confusing and tedious. Since paying conditions are different for every individual, someone from her group has to account for every condition for every person, then do calculations accordingly to find out how much one needs to pay. This is all done by hand, so the process takes a long time, and is prone to errors.

Currently, she keeps the score card of the games she played well in (scored low), and discards the ones where she scored high. This is because scorecards are quite bulky and it is laborious to organize them by golf course, by date, and what not, by hand. As for the payment process, someone from her group has to ask the cashier how much each condition changes the price; i.e. how much someone who played with a caddie has to pay more than someone who did not. There are innumerable variables that change the price, so the payment process is heavily dependent on the cashier.

The inconvenience of scorecards would not help her improve her golf skills, as her scorecards aren't accurate representations of how she plays on average. The scorecards that she keeps are biased, and biased for a reason, as she cannot keep every scorecard from every game she plays.

My client seeks to improve her golf skills, and I believe that being able to look back at her past scores will help her do so. Additionally, automating the process of payment will enhance her golfing experience.

Rationale for solution:

I decided to create a dedicated program for my client rather than a database to store all her past scores, because I wanted to store more variables than just golf scores; i.e. who she played with, or what golf course she played at. In addition, the secondary function of the program of automating the payment process requires a great deal of interactivity, so cannot be implemented in a database.

I chose to use Java, because I'm familiar with it, specifically the Object Oriented Programming. With the usage of GUI (Graphic User Interface), I will be able to make an

interactive, user-based approach with the final product by utilizing buttons, checkboxes, and dropdown bars. Java is also much accessible for the user, because it is transferable across many platforms. Currently, I am using Eclipse Oxygen.2 Release 4.7.2. With the help of Eclipse IDE, the process of writing program becomes easier due to built in features such as error runtimes. Lastly, Java is free to use and doesn't require licenses.

Word Count: 483

Criteria for success:

This program will display a calendar in which the user can edit each date cell to store variables in it. User will also be able to input conditions of different players to determine the payment.

- The program allows each date cell in the calendar to store details of a golf session.
- The program allows the user to freely edit variables in the calendar.
- The program correctly connects the calendar with a game session.
- Program will properly take into account every different condition.
- Program will accurately calculate and display the payment needed to be made by each player in the group.
- Program will take into account the different promotions of a golf course when calculating payment.
- The program correctly generates monthly reports.
- The program will be able to be used in another language.
- The program will save informations of a golf session in a date once the user closes the program.