

Criterion E: Evaluation

I will subsequently evaluate the success criteria that was previously defined by my client through multiple stages of the product development. This evaluation encompasses the feedback received from the client in the final interview stage where the client used the full ready product. The transcript for the interview is Appendix 2 (Second Interview).

1. Information can be stored in predefined fields for multiple pupils.
 - ✓ This criterion has been met. The object class I made and the SQL tables I used to hold information on the pupils allowed for many fields, including the opportunity to add extra information.
2. Pupils and their respective fields can be deleted, altered, and extra information can also be held. All these parameters are checked for errors.
 - ✓ This criterion has been met. My client had the opportunity to edit data in every field for every pupil, delete information on specific pupils and delete the pupils themselves from the database. Error checks were placed throughout the program, whenever data was entered into the database, each parameter was checked to make sure that the data was valid.
3. The client can search and sort the data. Data is organized.
 - ✓ This criterion has been met. On the main panel of the program a search feature is available to the client, where he can choose from 6 main fields and search any relevant data. This data is then represented on a table, where it can be sorted using the column headers.
4. The database is password protected. If the login details are forgotten, they can be retrieved via email.
 - ✓ This criterion has been met. The first panel when you start the program is a login frame, this allows my client to enter their details, which are then checked to make sure that they are correct. After the initial login, my client can set up a security question in the personal information panel, this can be used as a backup incase the password is forgotten. If the security question is answered correctly then the details are emailed directly to my client.
5. Automated emails are sent to confirm coaching sessions.
 - ✓ This criterion has been met. When session details are changed for a pupil then they can also be emailed directly to the pupil, so that my client can confirm that they will be available for the session.
6. Sessions are displayed in order and can be sorted. Relevant information for each session is visible.
 - ✓ This criterion has been met. In the main panel of the program, there is a secondary table which shows and sorts all the upcoming sessions. The relevant information such as the time and the location are also shown in this table and can all be sorted.
7. Emergency forms can be created and accessed, in case there is injury or another problem with the pupil.
 - ✓ This criterion has been met. A detailed form can be created with the necessary details. All forms for one person can be accessed using the database.
8. Personal information on my client can be stored in the program and monthly income can be calculated.
 - ✓ This criterion has been met. The final panel shows all the personal information for my client, including his personal emails, work details, monthly income. My client can also change his login details in this section.
9. Documents of any type can be stored in the database for specific pupils.

- ✓ This criterion has been met. There is a dedicated panel for documents, where they can be uploaded into the database. These documents can also be retrieved for every pupil and then opened using the program.
10. All the data has been backed up.
- ✓ This criterion has been met. The data is saved in an SQL Database and can be readily accessed.

Recommendations for further development

❖ Minor Improvements

- Use of calendar class to select dates rather than manual input as this lead occasionally led to errors by the user.
- Use of radio buttons as provided by JFrame rather than using toggle buttons, as the user was less comfortable with the toggle buttons and would have trouble going back and resetting. Radio buttons will make this much easier.
- Although there is error checking for misspellings in file paths, my user thought the same would be useful in emails, checking to see if they are valid and no error has occurred.

❖ Major Improvements

- Suggestive typing. Using the records in the database, when my user is typing a name or a date, they could be automatically loaded using suggestive typing.
- My user said that he has multiple devices so making the program and database online so it stays synced on both devices could help him substantially.
- Since the user enters a lot of information, in adding, searching, managing sessions, creating forms and more. He would prefer that the program could catch or highlight his misspellings and then possibly correct them. I realized that the Apache Lucene API can be used for this requirement.
- Finally, the user was getting tired of tediously having to copy and paste file paths and enter them in the system. A major improvement could be done by using the JTree component in which file directories can be loaded. This would make file selection and finding much easier.

Extensibility

After delivering and installing the program for my client, I had an interview in which we explored every aspect of the program and the client shared his final thoughts with me. He was quite happy with the final product; however, he did make some suggestions for future implementation, apart from his improvement ideas above. These are as follows:

- Introducing an automated SMS message system which also works as a reminder for my client's pupils which have a session with him. Since many people use their phones nowadays, this would make communication easier.
- My client also suggested that as a final possible extension, he would like it if the project could be extended so that my program also worked on his android-based phone, so he could seamlessly transition between phone and laptop for his work.

Words: 767