

## Criterion A: Planning

### 1. Defining the Problem

My client, Manan Swarangpate, is the president of the DECA Business Club at Lillian Osborne High School. After consulting with my client during our first interview, I learned that last year was the first year of this club at Lillian Osborne. Manan also stated that he had no previous experience in running a club, which is why everything was highly disorganized. Problems identified by Manan included, members enrolling in the club without paying, meeting attendance not being tracked, etc. Manan also included that he had tried to keep track of these things using Google Sheets, but never found himself using the spreadsheet program as it was inefficient, and because it "takes too much time."

I began to think of a solution for the problems faced by Manan and came up with the idea of creating a database program to store information, one which was user friendly and could be easily accessed.

Next, I decided to hold a second interview with Manan to better understand how he would like the program. Manan says he wants the program to allow him to add member information, edit member information, and remove members. Name, email, status, their unique ID's and payments, classify as member information. He also wants the program to help him take attendance. Manan says that he will be providing a CSV file which has information for the current presidents and executives. The first and second interviews are documented in the **Appendix**.

I drafted a proposal, and proposed the idea to my Computer Science teacher. Who not only approved my project, but also agreed to be my advisor.

### 2. Rationale for Proposed Product

The idea behind this program is to store member information, maximize efficiency, and lower the amount of work required by my client. Through this program Manan will be able to collect and access/edit member information and take attendance.

Manan has emphasized that he wants the program to be as efficient as possible. To ensure this, there will be certain measures implemented in the program. These include navigation through the use of the number pad, username input automatically converting to email, and more

I believe using SQL and Python will be helpful for the development of this program. Inside Python, I will be using the "sqlite3" library.

I'm using Python and SQL because:

- I am learning it in school, and have previous experience

- With SQL I can easily manage databases without the use of external programs
- Python can help me extract and manipulate content from the CSV file
- I will be able to create a user-friendly interface using Python

### 3. Success Criteria

Program will display a greeting and a working menu upon start
Program will display data-entries in a nicely formatted table
Program asks for member info and adds members if add member is selected
Program asks for info to edit, then makes edits to member if edit member is selected
Program will allow the user to remove a member if remove member is selected
Program will display a submenu allow the client to take attendance
Program displays members individually and asks for attendance then updates attendance table
If any data entry errors occur, the program will output an error message and redirect the user as needed
Program restarts without the user having to restart it manually

Word count : 440