Criterion E: EVALUATION

Success Criteria

- **Chords can be observed in a display interface similar to that of an equalizer in a DAW (Digital Audio Workstation).**

  This works well. The graph was plotted with frequencies on the x-axis and amplitude on the y-axis. My client said that this plotting method was familiar and easy to understand.

- **Clients are able to enter musical notes to build chords. If possible, the client would like to input notes through the MIDI information protocol.**

  My client is satisfied with this feature. The input method somewhat resembles the 12-tone western keyboard of which he is familiar.

  The inability to individually remove notes from a chord was bothersome for the client, particularly when building large chords, and the program is unable to parse the MIDI protocol, as that function did not fit into the time constraints of the project.

- **Client is able to load chords from a database and compare them to see their similarities and differences.**

  This function works well. Access and comparison of saved chords is simple. The client would prefer chords overlaid against one another when compared, but such a feature was not supported by the chosen graphics library.

- **Client is able to hear shown chord(s)**

  Within the project's time constraints, this success criterion was unachievable. Unlike the GUI, there were no importable libraries capable of satisfying the project requirements.

Recommendations for further improvements

The client's primary complaint is the awkwardness of inputting and comparing chords. From a programming perspective, this process flows smoothly. However, as discussed by the client, they would be much more comfortable with a real keyboard interface. This improvement is possible by developing software to parse information supplied to the app using the MIDI communication protocol, allowing users to input notes by playing on a midi interface. Such an improvement will greatly improve the function of the program.

Another issue is that, though this is a web application, it is not currently hosted on a web server. Instead, the application hosts itself on the client's computer when it is run, effectively defeating the whole point of a web application. The simple solution of running this program on a web server with a dedicated domain name would greatly increase accessibility - not only for my client, but for other musicians. This solution is also quite achievable.

Because web applications are multi-platform, the GUI may not appear as intended on some devices. For this reason, further development may be needed for usage of the application on, for example, mobile devices. Such an improvement involves redesigning the GUI, which is achievable given time.

Some database functionality is missing, like the deletion of chords and user profiles. However, such functionality is not the primary concern of the client. Features like editing of the user profile and chords are of the same category. However, because they are not the foremost concern of the client, I opted to develop other functionalities like plotting the graph before fixing such issues.

WC: 490