Criterion A: Planning

The Scenario:

The website for my high school's band program is a primary source of information for the band and color guard programs.The head of these departments Dr. Parsons and the assistant director Mr. Barragan expressed concerns that the central issue with getting information from the website is because of its outdated back-end (See Appendix transcript: August 28th, 2023). The webmaster, Herb Sutherland explained that the system relies on Seamonkey for updates (See Appendix transcript: August 28th, 2023). Mr. Barragan noted in a separate interview that the website is entirely hard-coded using HTML, making it difficult to update (See Appendix transcript: October 12th, 2023).

Throughout September 10th through October 1st, 2023, eighteen users expressed similar concerns in google forms about the website's performance:

- 14 students said that the design was outdated, causing difficulty in usage
- 11 students expressed concern about outdated information or lack of useful information

Justification

I hope to create a new Java application that is connected to an SQL database, to store event information. This application will have a simple interface for student users to search for specific information. This system can be expanded with additional authentication through a login form for staff, allowing them to easily add, delete, or edit information on the front-page.

Java is a suitable basis for this application as it can create interfaces that interact well with the needs of various desktop applications. Since Java is also an object-oriented language, each event can be stored and interacted with as a separate instance.

The integration of SQL simplifies this process by providing storage for these objects. SQL is able to manage the needs of the website through its ability to communicate easily with databases. Javascript is used to connect the front-end forms that collect the information that the user would like to alter, and submit that information through SQL.

Success Criterion:

- Users who are just browsing the website should be able to have limited interaction with the database through a “search” button and should be able to view each event.
- Staff will be able to sign in easily through a Login form, that only allows specific users to interact with the database as a whole.
- Staff will be able to sign into an alternate application that updates the main database dynamically.
- The application must be easy to expand upon and interact with, with simple buttons.
- The data must be dynamic, and are able to be added, updated, and deleted with ease.
- The application will adapt to the size of the browser that a user is on, to enable easier access to the website.