**Section A2, Team 2:** Jade Sessions, Zexing Gao, Boxi Huang, Keith Lovett

**Team’s Github:** https://github.com/ZexingGao/411SoftEng

**Heart-Rate-based Music Selection**

Database: store user information, including personal playlist, recommendation list, etc.

APIs: Fitbit API, Spotify API

Authentication: Spotify

Idea: It is often hard to create workout playlists that suit your individual workout needs. First, you need to choose a mood, songs you like, and then a similar tempo. If you want to run on the treadmill, it can be hard to tun to songs that do not match your speed or level of activity. For this problem, we would create an application that creates playlists for the user based on their heart rate. The application would use the user’s Fitbit in order to gauge information about the user’s heart rate and use that to create a playlist of songs that match the user’s tempo. Because Fitbits continuously log user information, we will be able to create a playlist based on the average heartbeat changes the user has throughout the day, as well as live creation, e.g creating a new playlist when the user is working out. Lastly, we will also be able to create playlists tailored to the user’s music preferences by using the Spotify API.

**Cross-Class Task Organizer**

Database: Store User Information, including all kinds of notifications.

APIs: Blackboard API, Google Tasks API

Authentication: Blackboard Learn

Idea: Oftentimes, individual tasks can be buried in various locations on Blackboard Learn, making it difficult to prioritize, or even remember them, between courses. We would create an application that collects tasks into a single checklist which the user can view and organize as they see fit. We would obtain course info via the Blackboard API, and generate a list of corresponding tasks, using the Google Tasks API.