

EE / CPR E/ SE 491 - Bi-Weekly Report #5

*Dates:* 10/13/2020 - 10/26/2020

*Group Number:* sddec20-13

*Project Title:* My (Musical) Life

*Client & Advisor:* Dr. Henry Duwe

*Team Members:*

Christian Hernandez - Project Manager

Chaz Clark - iOS Developer

Daksh Goel - Backend Developer

Vatsal Bhatt - Backend Developer

Vignesh Krishnan - Frontend Developer

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### **Weekly Summary**

As for the weekly summary, the team is continuing to do well in developing the final product. The two major technical challenges the team is facing are connecting Spotify and the bin selection algorithm. These are challenges that the team is spending most of its time on right now. Currently, the insert bin function is working on the iOS side. For the bin selection, the team is trying to figure out the best way to approach the weights for the sensor inputs. The team needs to weigh sensor inputs based on priority. As of right now, location will be the value that is weighted the most. For the past couple of meetings, the team has been actively discussing the best approach for the weights in the algorithm.

### **Past Week Accomplishments**

- Christian

- Helped Daksh with implementing the time and day portion for the bin selection algorithm.
  - Thank you to Daksh for helping with this!
  - Given a time input, the time will be converted into a string, and then, converted into seconds using a helper function
  - Given a day input, the function will find the absolute value between the input day and the bin day. This is based on the bin the algorithm is comparing it against
- Unit Tests
  - Began writing unit tests to test UserData module
- UI Unit Test
  - Running into issue with merging local branch into master. The tests fail rather quickly for an unknown reason. This is in the process of being debugged
- Chaz
  - Implemented workflow for New Bin Selection
    - Designed and developed storyboard component
  - Added API request and protocols to insert bin
  - Debugged location sensor data within simulator
- Daksh
  - Debugged API Gateway issues
  - Refactored bin difference data and formatted the data in a nested dictionary.
  - Implemented an initial bin ranking system

- Vignesh
  - Completed Lambda REST Api authentication on swift side
  - Worked with Chaz to get the getAccessToken function fully working. Ready for use with future API calls
  - Authorizer in API Gateway ready to be added to any future routes
  - Authentication and security to our REST api completed
  - Moved to debugging Spotify player issues with Vatsal
- Vatsal
  - Moved Spotify token exchange for authorization from Heroku server to AWS lambda and API gateway to keep backend calls consistent
  - Debugged Spotify player screen and sought help from Spotify developer community to resolve some SDK issues
  - Tested the app on a real iPhone device to check for the functionality of Spotify authorization and player controls
  - Caught up another teammate, Vignesh with the Spotify SDK functions to work on implementing the Spotify player controls together

### **Pending Issues**

Spotify SDK issue with swift where the app authorizes the user correctly but crashes upon controlling the Spotify player and fetching information from the Spotify app.

Reference:

<https://community.spotify.com/t5/Spotify-for-Developers/iOS-Spotify-SDK-Problem-when-using-Storyboard-Scenes-in-Xcode/m-p/4984767>

### Individual Contributions

<b>NAME</b>	<b>INDIVIDUAL CONTRIBUTIONS</b>	<b>HOURS THIS WEEK</b>	<b>HOURS CUMULATIVE</b>
Christian Hernandez	<ol style="list-style-type: none"><li>1. Assisted with writing Day and Time portion of the bin selection algorithm</li><li>2. Worked on writing unit tests</li><li>3. Trying to fix the issue with UI unit tests</li></ol>	6	13
Chaz Clark	<ol style="list-style-type: none"><li>1. Implemented workflow for New Bin Selection</li><li>2. Added API request and protocols to insert bin</li><li>3. Debugged location sensor data within simulator</li></ol>	6	12
Daksh Goel	<ol style="list-style-type: none"><li>1. Refactored bin data code</li><li>2. Created a rank bins functions</li><li>3. Fixed API calls</li></ol>	6	12
Vatsal Bhatt	<ol style="list-style-type: none"><li>1. Moved Spotify authentication from Heroku to AWS</li><li>2. Debugging Spotify player controls</li><li>3. Tested the app on an iPhone device</li></ol>	6	12
Vignesh Krishnan	<ol style="list-style-type: none"><li>1. Completed REST api authentication</li></ol>	6	12

	<ol style="list-style-type: none"><li>2. Finished swift function for get access token</li><li>3. API Authorizer ready for future routes</li></ol>		
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### **Comments and extended discussions (Optional)**

N/A

### **Plans for the Upcoming Week**

- Christian
  - Finish writing unit tests for the UserData module
  - Fix the UI Unit Tests issue
- Chaz
  - Finish the round trip of selecting new bin
  - Improve UI components
  - Help integrate spotify within our application
- Daksh
  - Implement new ranking system
  - Test bin ranking with real-world data
- Vatsal
  - Work with Vignesh to resolve issues with implementing the Spotify player and fetching information from the spotify app.
  - Implement the pipeline to get the song ids from the backend and play them on the Spotify player.
- Vignesh

- Work with Vatsal on Spotify player to resolve issues with communicating with Spotify app
- Use get song Ids request on swift side to play specific songs on Spotify

### **Summary of Weekly Advisor Meeting**

The meetings with Dr. Duwe continue to go really well. In the first meeting, the team provided updates regarding the status of the project and the direction the project is currently going. Dr. Duwe asked the team about using the app and how he can test. Chaz mentioned to Dr. Duwe about possibly adding him as a beta user. Dr. Duwe would need to create a Spotify account.

The second meeting was successful as well. The focus of this meeting was the bin selection algorithm and the connection to Spotify. Both are major challenges the team is facing right now. The team did give an update to Dr. Duwe about the calendar and deadlines for the class. He still seems satisfied with the progress. The team will be joining forces to tackle the problem with the bin selection algorithm and Spotify integration.