Senior Design

Meeting Notes

SoundScape

9/11/24

- Main priority is to work on assignment 3
- Each member needs to write their own essay an upload to the repository
- Austin created the repository and invited everyone

9/13/24

- Held project kickoff meeting with Professor Hawkins
- Should use opportunity to learn – maybe focus mainly on either the AI aspect or the mobile development aspect

9/18/24

- Worked on design diagrams as a team
- Joe is responsible for finishing the diagrams
- Austin will complete the diagram descriptions

9/25/24

- Worked on coming up with tasks for the project and assigning each task to a group member
- Each group member will be mainly responsible for their task but each member will help with nearly all tasks
- Need to finish task list and assignments and upload to repo

10/2/24

- Worked on coming up with the milestones, timeline, and effort matrix for the project
- The timeline may be subject to change slightly but it is important we stick to it as close as possible to avoid delays and ensure we can finish the project on time
- All group members will be partially responsible for finishing these items during the remainder of the week
- All documents need to be uploaded to the repository still

10/9/24

- Austin began work on the project constraints essay before the meeting. Derrick and Joe will finish the remainder of the essay later this week
- Discussed potential directions for the project to go in (either focusing on AI or mobile development)
- Research still needs to be done on the possibility of iOS development and how the AI model will function

10/16/24

- Austin created the design presentation slides and shared with the group
- All group members are responsible for completing specific slides
- Some preliminary research has been conducted, but the project is still very much in the beginning stages

10/23/24

- The presentation has been completed and it will be recorded this Saturday at 3 over Discord
- The main focus of the group this week has been completing the presentation and will continue with research later in the week

10/30/24

- The presentation was recorded and uploaded to the sheet
- All group members will be responsible for completing peer revies for other group presentations this week
- After some research, Austin has concluded that web development will be the preferred route over mobile development. Since all group members own Apple phones, it would not make sense to do Android development. However, a Mac is almost required for iOS development and it costs $100 a year to be a part of Apple's developer program, and since you can access web apps from a phone anyways, a web app will likely be the way to go

11/6/24

- Austin has reorganized the group repository and created a table of contents in preparation for submitting the final fall design report
- Some preliminary discussions about the code and framework took place
- We hope to begin coding for the project soon

11/13/24

- We have decided to use React or Svelte as the front-end framework for our project
- Austin is doing some research on how to implement AI into the project
- Coding will begin soon

11/20/24

- Some basic code has been put in place to get the project started on the front and back ends
- Basic Spotify API requests have been put in place to get started
- Next steps will be to work on the UI, get other APIs set up, and continuing to look into AI

11/27/24

- Discussed what needs to be done to prepare the repository for final report
- Austin already made updates to the repo, just need to look through and double-check all past work
- Worked on getting the code set up on all the group members' local environments and resolving some issues that resulted from that
- Each member will look through repo and make any necessary changes
- All members will work on code and further research when time allows this week

1/15/25

- Discussed plan for what needs to be done now that we are back from break
- Joe will continue focusing on UI work, Austin will keep looking into the backend, the Spotify API, and the AI model, and Derrick will float between and help where needed

1/22/25

- Decided to implement idea of using Tinder swiping on song recommendations to give user more control over the songs in their playlists
- Everyone will continue working on what they have been doing so far
- Began working on test plan assignment
- May have some issues with the backend and AI that needs to be investigated further

1/29/25

- Discussed test plan and what needs to be done to complete that
- Discussed issues with Spotify API and how important endpoints to the project have been recently deprecated
- Everyone will continue working on what they have been doing, further research is needed to look into how to get the backend working

2/3/25

- Met with professor Hawkins
- Discussed issues about Spotify deprecating needed API endpoints and issues with AI model
- Came up with plan on how to move forward:
    - Look into some alternatives for music metadata including:
        - Gracenote
        - YouTube Music
        - Soundcloud
        - Shazam
    - Look into pre-existing AI models for the time being
        - Hugging face could be a place to start

2/5/25

- Discussed plan for how to move forward with the project
- Austin and Derrick will focus on looking into alternatives on how to get music metadata and how to get the AI working and implemented
- Joe will continue looking into the UI and improving that
- Also discussed user docs assignment and what needs to be done to finish that

2/12/25

- Discussed presentation slidedeck assignment. Work has already begun on that, but more needs to be done to complete it
    - Derrick will focus mainly on this while Austin continues looking into AI and metadata issues
    - Joe will continue looking at UI
- May need to shift away from custom AI model due to immense limitations
- Discussed the possibility of integrating generative AI into the project while maintaining the Tinder cards idea

2/19/25

- Discussed shifting the development focus of the app

- o Decided it was unlikely we would be able to come up with a solution to find recent music metadata that we could reliably map to Spotify ids
- o Even if we could, due to the lost time it is unlikely we would be able to develop a competent AI model in the remaining time
- o In order to have a presentable project at the Expo, we will look into the possibility of using OpenAI API calls instead of our own custom AI model to come up with the recommendations
- o Austin will continue looking into this further
- Joe made some progress on the UI and will continue to make steady updates
- Derrick will help Joe for the time being in order to contribute more to the code
- Group will need to look into making the poster soon – will need better UI to show off in the poster

2/26/25

- Discussed what the next steps of the project are
- Discussed work on the project poster
- Austin will work on the project poster and will look into integrating OpenAI API calls into the app to act as the AI recommendation system
- Joe and Derrick will work on the UI, ideally to have a presentable product to put on the poster

3/5/25

- Discussed poster assignment
- o Austin will continue working on it
- Discussed UI and what still needs to be done to make it look complete and have all functionality
- o Derrick and Joe will continue working on the UI
- Austin will continue working on anything needed with the OpenAI integration

3/12/25

- Need to add ability to export to Spotify
- Need to begin researching public deployment options
- Austin will continue to try and improve AI system, but it has been implemented
- Austin also implemented a loading animation for when the AI is fetching recommendations and also finished the poster
- Derrick and Joe will continue to work on the UI

3/19/25

- No meeting – spring break

3/26/25

- All members have many other projects to work on so likely won't be able to spend too much time working on the project this week
- Need to look into issues with the AI not getting the correct information from the front-end
- Need to resolve errors on playlist page with swiping cards
- Need to fine-tune AI more so that recommendations are more accurate
- Everyone will work on what they can when they have time this week

4/2/25

- Discussed final things that must be done before expo next week
- Joe is working on fixing UI on the playlist page and getting the card swiping to work correctly
- Derrick is looking into issues with information not being correctly passed to the AI before it recommends songs
- Austin is looking into the deployment of the app, helping with the AI issues, and issues with logging into Spotify and staying logged in
- Will meet with Professor Hawkins this week to review project
- All project goals and testing must be completed by end of day on Monday, 4/7

4/7/25

- Met with project advisor Will Hawkins
  - Showed him the app, got positive feedback
- Need to finalize some last-minute changes and improvements before the expo tomorrow
  - Everyone will work on anything they can tonight

4/8/25

EXPO

4/9/25

- Everyone needs to complete the self-assessment report
- Everyone will contribute to finalizing the final design report and making sure that all assignments in the repo are up to date and ready to submit for grading
- Will send the repo and rubric to Hawkins early next week