SEEKEN Project Report

Please list out changes in the directions of your project if the final project is different from your original proposal (based on your stage 1 proposal submission).

We were initially planning on creating a web app that helps podcast listeners gather and save information about books, companies, and famous people mentioned in podcasts. Our plan was users could input podcast URLs to retrieve details through web scraping and datasets. We also planned to have a favorite function and a whole page dedicated to that where the user could manage entities. The favorite page would have "favorited" podcasts grouped with their entities. In addition, we planned on including visualizations like bar and pie charts to summarize saved data. Our final project took a different direction:
- We removed the favorite page and function because we felt it was overly complicated and not very useful
- We added a login/sign up page to take over the components that would be missing from removing our favorites page like deleting an account and creating an account
- We removed the grouping by podcasts since we removed the favorites page and instead grouped by names, companies, and books for each podcast. Also only one podcast's data(books, companies, and names) will show at a time.
- We also removed group visualizations and instead included two buttons on the main page that show Most Companies Mentioned in Podcasts with Total Revenue and Most Mentioned Books Across All Podcasts.
- Although each new podcast looks like it overrides the previous podcasts' data, it simply doesn't show all and saves internally.
- We kept showing details about entities the same for the most part, we removed web scraping because we felt a user interested in that topic can just search it up more in depth than whatever we provide. However, we kept showing details from our datasets the same as planned with a slight difference. Instead clicking on the specific entity in its group gives this data.

Discuss what you think your application achieved or failed to achieve regarding its usefulness.

We think we still accomplished our initial goal of helping people seeking valuable information that is mentioned in a podcast. Although the direction might've varied we still achieve what we would have regardless which is to allow users to gain a clear view of important people, companies, and books that were mentioned in the podcast. They are able to gain a quick review session on the important entities.

Discuss if you changed the schema or source of the data for your application

No, we kept and used the sources provided in our other stages.

Discuss what you changed to your ER diagram and/or your table implementations. What are some differences between the original design and the final design? Why? What do you think is a more suitable design?

We didn't change our ER diagram since our initial stage 2 and have been faithful ever since.

Discuss what functionalities you added or removed. Why?

We removed the favorite/saving functionality because we felt it was unnecessarily difficult. We also removed the grouping by podcasts feature and the data visualization component which compared because it was a by-product of removing the favorite page. Instead, we added the sign up/login page which saves users and allows users to delete their account and verifies if their account is in the system. We added this because we felt each person, although wouldn't see the data from previous podcasts, can see certain features like Most Companies Mentioned in Podcasts with Total Revenue and Most Mentioned Books Across All Podcasts that use the previous podcast data that is saved within their account. We also wanted on our end to see how many people are using our website for personal analytics. We also removed group visualization since we removed the saved page and the grouped podcasts. We felt that it wouldn't make much sense and would overcomplicate our application. We did add the two buttons to show like mentioned before the Most Companies Mentioned in Podcasts with Total Revenue and Most Mentioned Books Across All Podcasts because we felt some randomness of interesting data was required.

Explain how you think your advanced database programs complement your application.
Our transaction is very useful as it helps us delete users. When a user account is deleted, we also delete all associated podcasts and references to ensure data integrity. Our trigger is used to ensure that passwords under eight characters cannot be inputted. This adds an extra layer of security. Our stored procedures are used to find companies with the most total revenue and to find which entities are references the most in podcasts. This complements our application well since it gives users extra information that could be helpful. For our constraints we defined our primary and foreign keys. All of these are accessible via the frontend.

Each team member should describe one technical challenge that the team encountered. This should be sufficiently detailed such that another future team could use this as helpful advice if they were to start a similar project or where to maintain your project.

Ojas - I faced an issue where there were multiple entries for each famous person in the database. This made it challenging when trying to access the information about this person when needed. Although I ended up having to write a query that deleted such repeats, I think it would be a helpful suggestion to preprocess the data in advance to avoid any such issues.

Vivek - I found it challenging to connect the frontend and backend as I was facing many errors when using Axios. I found it very helpful to use print and console statements to debug these issues and would suggest being proactive about this.

Srivanth - I found merge conflicts very challenging. A helpful tip for those in the future is to use different files and branches in Github which can help avoid a lot of these conflicts.

Maheswara - I had difficulties in coding up the frontend design at times since things changed as we moved such as layout shifts. I would recommend more detailed and proactive design if it is a top priority for you.

Are there other things that changed comparing the final application with the original proposal?

No apart from the functionalities mentioned in the added and removed

Describe future work that you think, other than the interface, that the application can improve on.

Other than the interface we think that we could work on adding the saved podcasts feature since it would add a new dimension to the platform.

Describe the final division of labor and how well you managed teamwork.

Our final division of labor is that Vivek and Maheswara worked on the front end while Ojas and Srivanth worked on the back end. However, we split most strictly database-related work equally between the four of us. We managed teamwork quite well since we are roomates so we were able to communicate efficiently and help each other when help was needed.