CMPS 312 Mobile Application Development
Lab 6 – List Interaction

In this lab, you will practice:

- Reading data from assets folder
- Interact with Lists by Searching, and Sorting.
- Add Navigation UI components such as TopAppBar and Bottom Bar.

List Interaction

Read the stadiums details from stadiums.json file and display them in a LazyColumn. Each row should be inside a card and have edit and delete buttons.

Implementation Details

1. Create a new project and name it **Stadiums**
2. Create assets folder and add the stadiums.json file
3. Add the necessary dependencies that allow you to serialize JSON files
4. Create a serializable data class called Stadium inside a package named model
5. Create a class called StadiumRepository inside a package named repository.
6. Implement **getStadiums()** method to return the list of stadiums from stadiums.json file.
7. Create a Kotlin file named **StadiumList** to implement **StadiumList** composable that uses **StadiumCard** composable**.** This composable should get the stadiums list and display them in a LazyColumn.
8. Make sure you add **edit** and **delete** icons to each StadiumCard.
9. Test the **StadiumList** composable by creating a preview composable
10. As shown in Figure 1, add a Top App Bar with a Search Box to allow users to search stadiums.

Figure 1. Search stadiums

11. As shown in Figure 2, add a Dropdown list to filter the stadiums based on their status (To be built, Major Renovation or All).

Figure 2. Filter stadiums based on status

12. As shown in Figure 3, Create a sort menu that sorts the stadiums based on Seating capacity and alphabetically based on city and stadium name.

Figure 3 Stadiums sorted by seating capacity

Figure 4 Stadiums sorted by name