CMPS 312 Mobile Application Development
In-Lab Assessment 2 – Covid Tracker App

Deadline 2ⁿᵈ October End of the day

In this assignment, you will design and implement a CovidTracker App to allow users to display lists using countries with their covid-19 stats, as shown in figure 2.

1. Sync Lab GitHub repo and copy the **Assessment2** folder into your repository.
2. Open the project *CovidTracker App* in Android Studio.
    The project has the following folders and files:
    a. **drawable:** images needed for this app.
    b. **assets:** has **covid-stats.json**
3. Create **CovidStat** data class to hold covid stats data as described in the JSON file. Make sure you annotate the class serializable.
4. Create an object named **CovidStatRepository,** which has a single property **CovidStat** of type list. Add **initCovidStat**(context:Context) function to read and parse the data from covid-stats.json into **CovidStat** list.
5. Create **a composable CovidCard() function** which defines the layout of a single list item. The design of the CovidCard composable is shown in figure 1. It should display the Country Name, population, active cases, total deaths and total recovered cases. Use modifiers as and when needed.
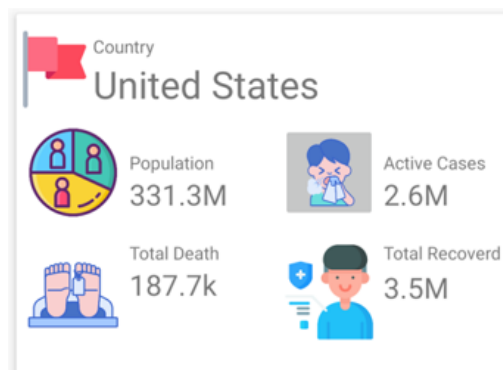

Figure 1 CovidCard

6. Create a composable function called **CovidStatList()**. This composable should load the **covid stats list** in the form of a LazyColumn, as shown in figure 2. For each of the list items, you need to use the above CovidCard composable.
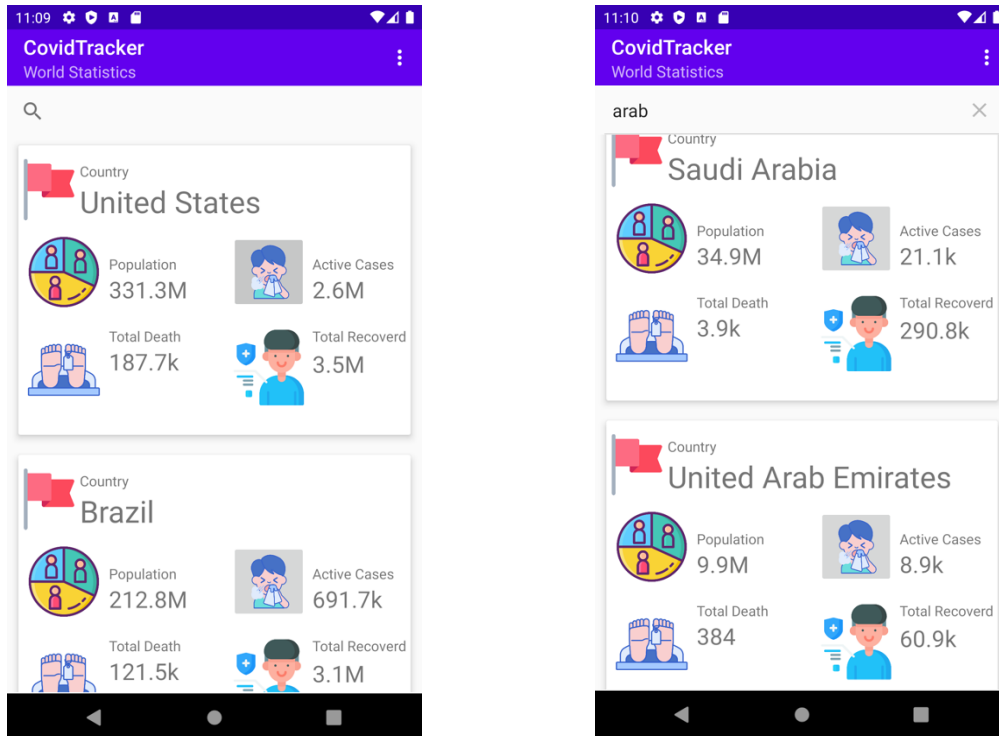
Figure 2. Loading countries in a Lazy Column

7. Create a composable function **SearchBox**() that defines the UI of the search bar, as shown in figure 2. Include the leading and the trailing icons as shown. When the user starts typing you should hide the search icon and show the close icon. If the user removes the entire text, you should do the reverse. Show the search icon and hide the close icon.

8. The search() function filters the list based on the search text.

9. Create a dropdown menu that has four items as listed in the figure.

10. Create a SortBy() Composable functions that implement all the four items shown in figure 3,
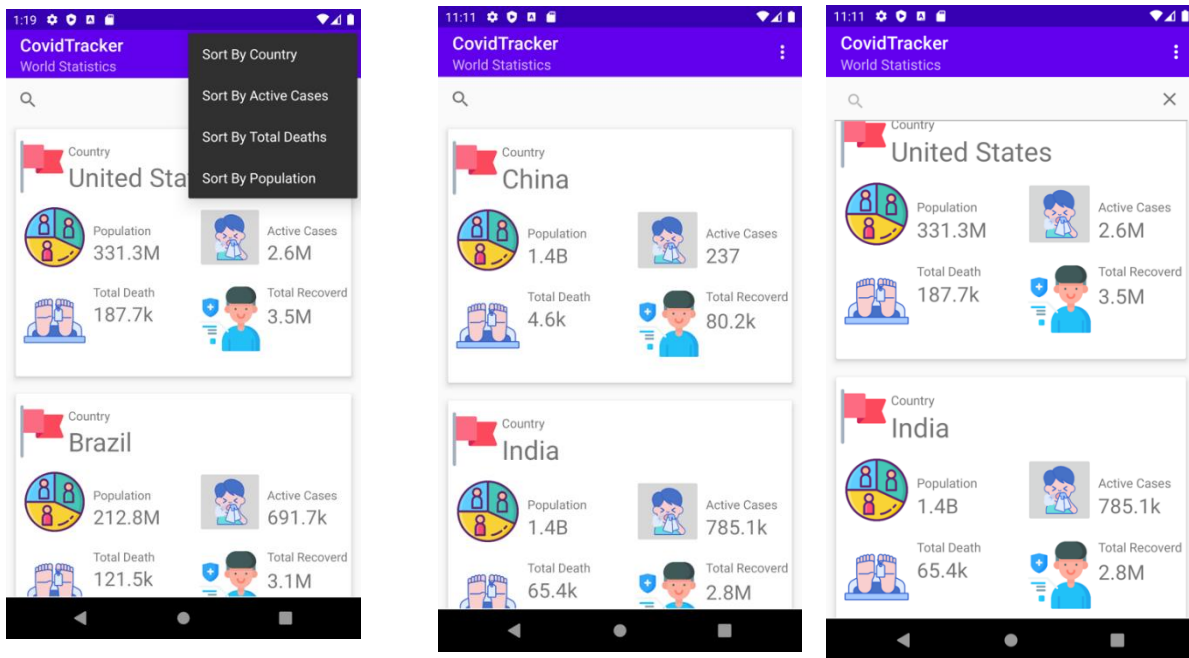
Figure 3 Sort dropdown menu

11. As you progress , push your work to GitHub and test your app

Deliverables

    i.   The Project Code

    ii.   The testing sheet that contains the screenshots of your application. Also, you need to add the percentage of the app functionality.

    iii.   Submit both files under your repository/assignments/assignment2