Mobile Application Development

Lab 2

OntarioTech
UNIVERSITY

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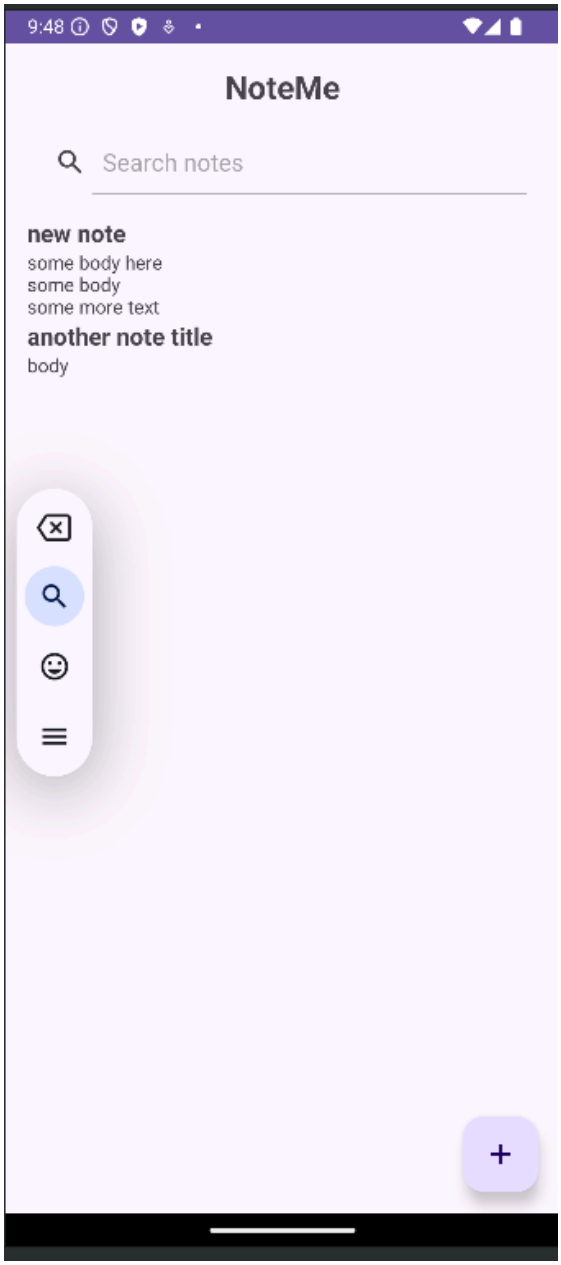
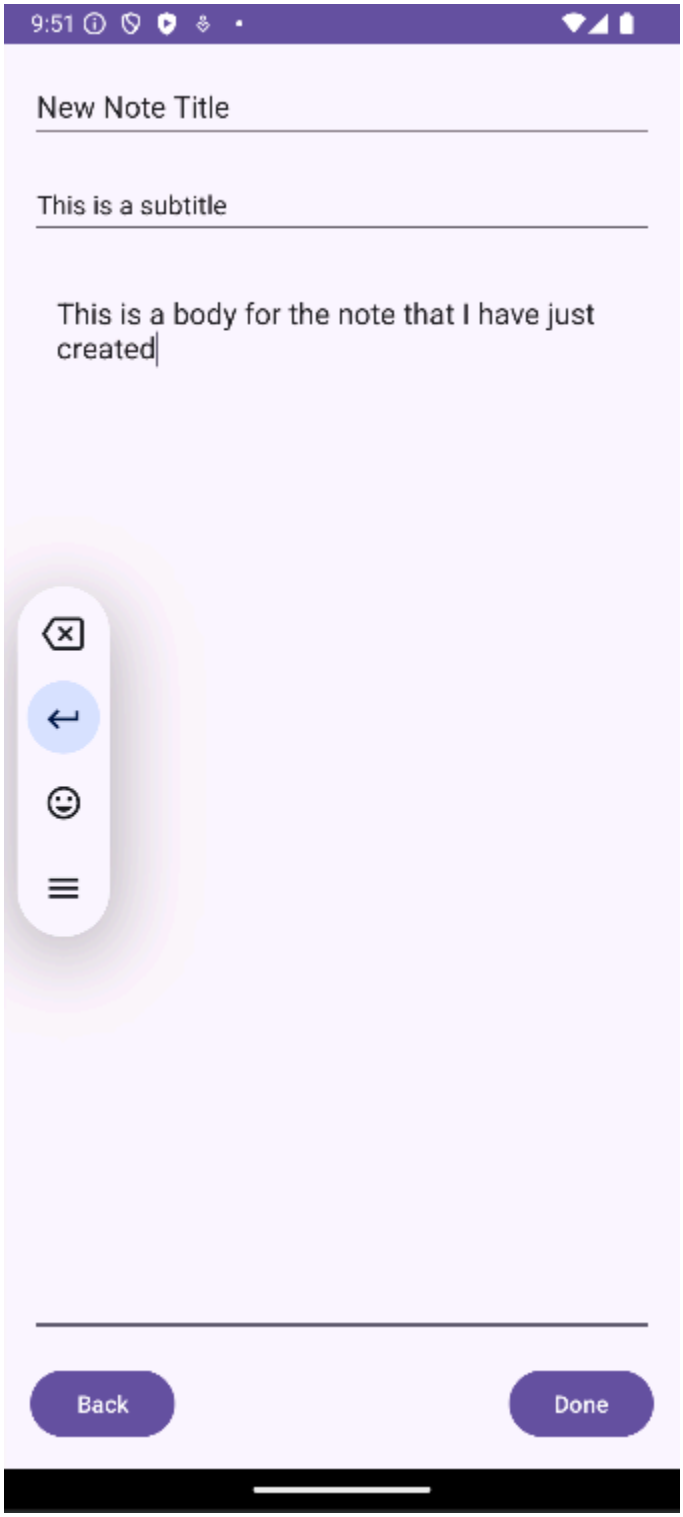
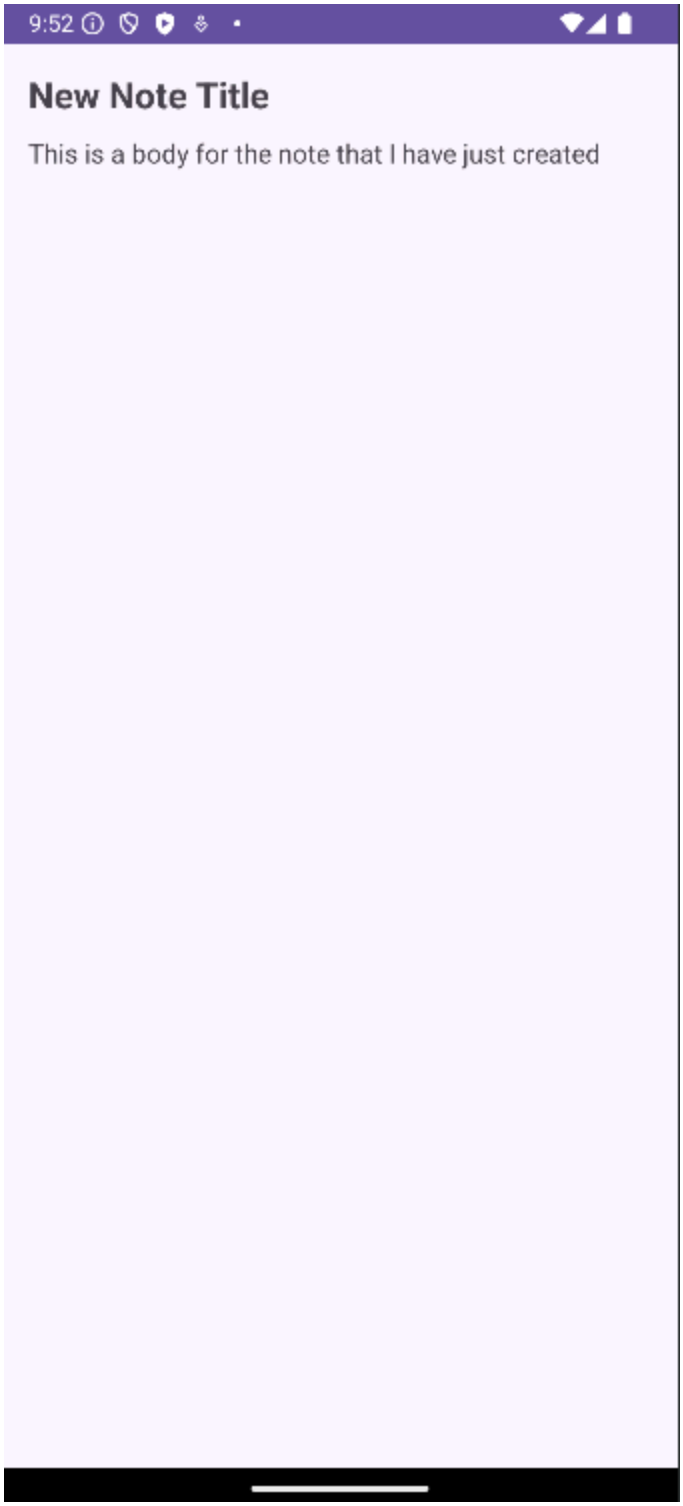
Screenshots of each page

Home page after adding some notes (this image includes some notes that we have been created before):

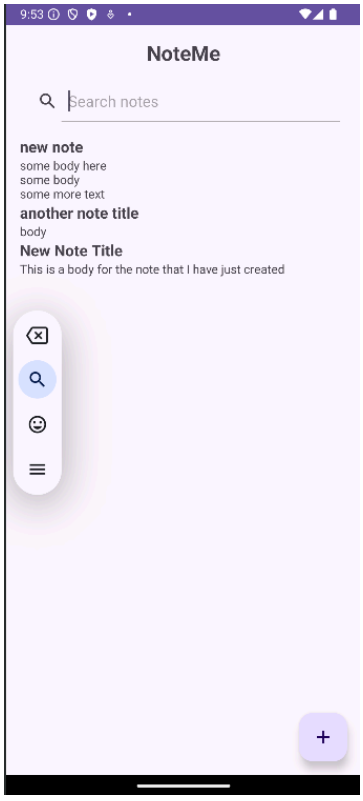


Adding a new note (after clicking on the + sign). Clicking on Done will return the user back to the main page. I have added a note and it will show up in the home page now as well. The next screenshot shows clicking on that note in the home page.

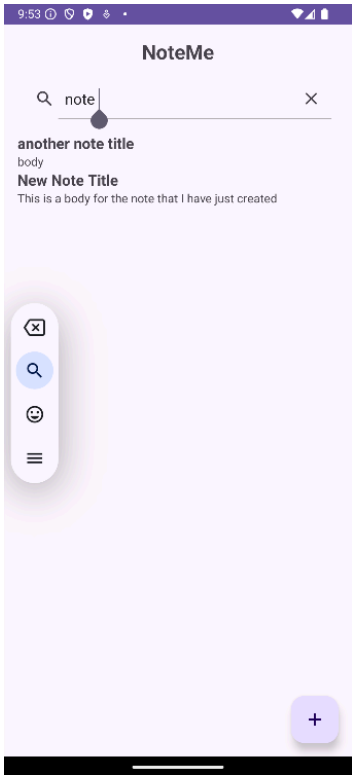



9:52
New Note Title
This is a body for the note that I have just created

Before searching:

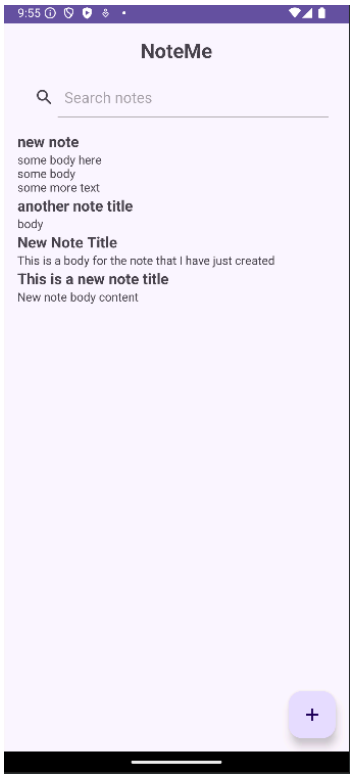


After searching:

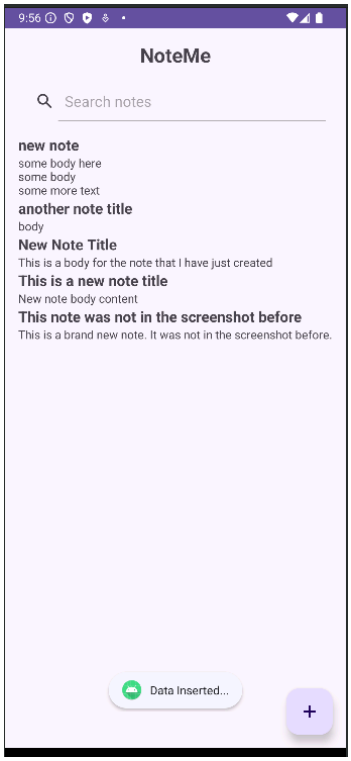


Screenshot before/after adding notes

Before:



After:



Explanation of each task

- Adding a new note
    - This makes use of a Java activity called “NewNote”, where the layout simply consists of three text fields
    - When the text within these three fields are submitted, it calls the database helper in the backend which has an “INSERT INTO” premade SQL piece of code, that would insert it into the database
- On the main page (MainActivity.java), it make use of the function inside of the database helper called “getAlleEntries”, which simply gets all the entries in that table using “SELECT * FROM TABLE_NAME”, where TABLE_NAME was set in the database helper class as a constant earlier.
- Finally the search function makes use of a function called “searchNotes(String filter)” in the database helper. This function takes in the search string (filter) and uses the prepared query with placeholders in it
    - This query makes use of LIKE in SQL, and uses % signs as wildcards (so the user does not have to start from the beginning of the title to find the note they are looking for).
    - The WHERE statement in the query includes searching the title, subtitle, or the content of the note, making it more flexible

Challenges

- The main challenge that was faced in this entire thing was figuring out how the SQLiteOpenHelper was used, and what functions we should implement
    - The initial setup was not bad, as we were able to use the documentation that was provided to us for this lab
    - We decided to simply just use the CRUD functions, because they were the only ones that seemed useful in this context
    - We also added a few more functions, such as the searchNotes function, which was created as an “extension” to the GET function (as this one also implemented filters)
- Another slight challenge was using the Cursor data type and rather than just a list of Strings. We had to find a way to convert from Cursor data types to something that was easily readable to the program