

Mobile Application: Lab 1

SOFE4640U

Professor: Dr. Akramul Azim



Lab objective: Learn use of database in mobile application

Group/Individual submission: Group submission

Tutorial grades: 10

Lab tasks:

This is a second lab. In first lab, you created GUI of “NoteME” app. In this lab you will:

- build a database, and save notes permanently
- Add different color on notes
- Display list of notes on the home screen.

Requirements:

- Initialize a sqlite database
- **New Note screen:**
 - Add option to pick color of notes
 - Note should be saved with picked color
 - Only allow notes to be saved if title has text in it. Otherwise throw an error message
- **Home screen:**
 - Display all saved Notes and they should be colored with color selected when creating note from “New Note” screen
 - User should search/filter notes by title name of notes
 - Set size of notes tile (on “home screen”) based on the size of textview size of note
- **Functionalities:**
 - Add code to save notes upon clicking “Done” button in “New Note” page
 - Add code to select the color of notes and show the notes tile in home screen with selected color
 - Use database to store notes permanently. Notes should remain saved even when you restart the app or phone

Rubric points:

Screen	Functionalities	Marks	Marks distribution	
Database	Created required classes and setup to initialize database	2	2	
Home Screen	Display all saved Notes with picked color	3	1	
	Able to search notes by title name of notes		1	
	Dynamic size of the displayed notes		1	
New Note screen	Add option to pick color of a note	5	0.5	
	save the note with picked color		0.5	
	Throw an error message if title is empty		1	
	Save notes permanently in database and retrieve them when re-opening app		3	

Tips:

- Use model-view-controller approach to deal with database. Use model to form a bridge between notes properties and database. Create service and dao class to write business and database handling methods respectively. This structure is useful when dealing with large scale database and multiple classes in Java program.