GitHub Username: https://github.com/sureshkumarm8

i-Smart Notes

Description

i-Smart Notes is an Android application is designed to help students or teachers to create their own text notes. This app automatically creates descriptive study notes for the users by taking inputs. User needs to give a topic or sentence or a keyword. This app will search online for the details and extracts the text and creates descriptive text notes for users 'n' no of queries. This app provides an integrated set of features to help the student to create his/her own study notes, edit/format. This app also provides OCR features to extract text and will creates study notes.

Intended User

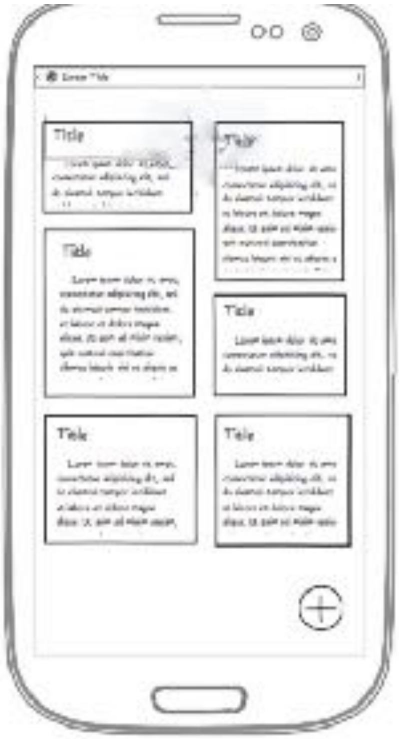
As mentioned in the description this app is for students or teachers.

Features

- Automatically generates study notes for given query or set of queries
- It supports to extracts study notes form an image
- Captures a photo and extracts the text from the photo
- Provides inbuilt richeditor to edit/format study notes

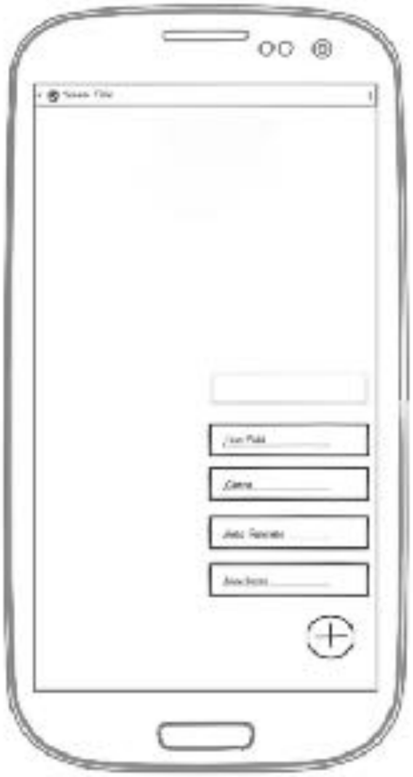
User Interface Mocks

Screen 1



This is the Main Screen with all notes in cardView.

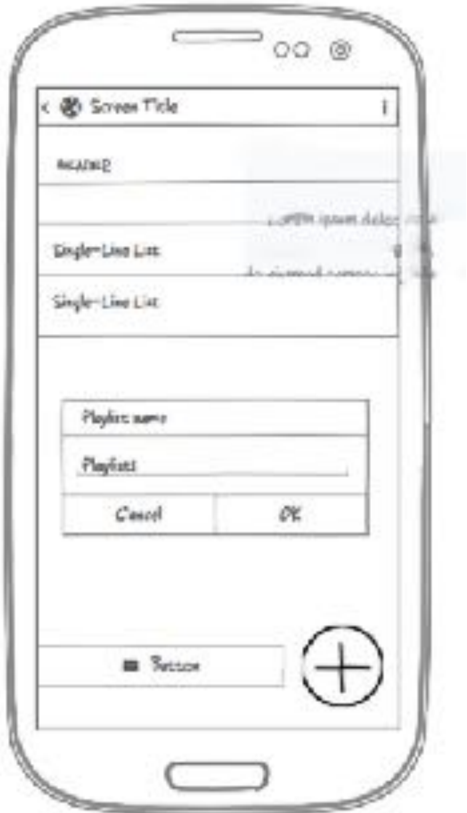
Screen 2



This the UI for selecting different options using FAB.

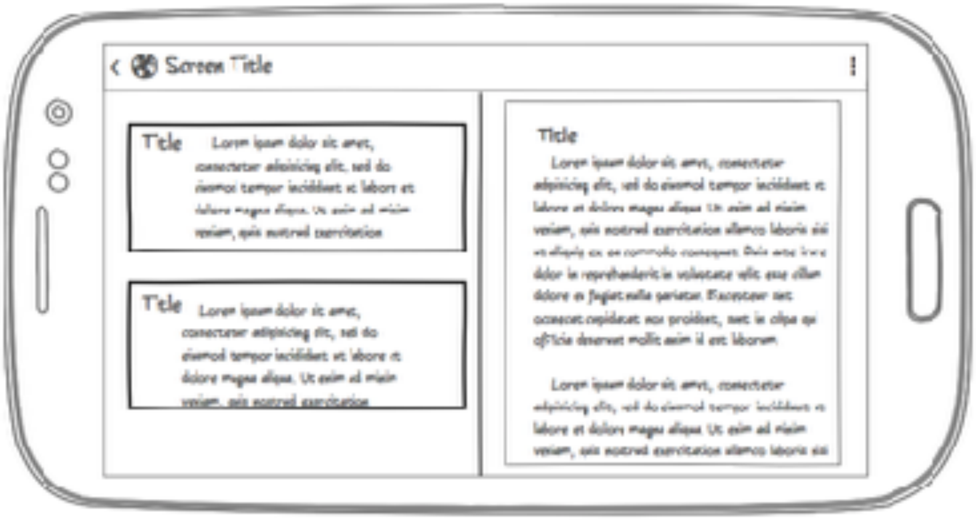
Screen 3

This is Auto Generate user Input UI



Screen 4

Tablet UI for notes list with description.



Key Considerations

How will your app handle data persistence?

This App will have a SQLite database to hold the title and description of text notes and will be managed by a Content Provider

Describe any edge or corner cases in the UX.

When the user hit the back button in the auto generate screen it will return back to the Main screen without creating new task.
The main screen contains Floating Action Button so the user can easily select between the features and the saved articles screen.
The auto generate screen also contain Floating Action Button taps so the user will have dialog Box to take inputs form the user with query and size of the description data.

Describe any libraries you'll be using and share your reasoning for including them.

- Android-WYSIWYG-Editor : A text editor written in Android, An iframe free text editor that uses native components in the content tree.

- FabulousFilter : Android library to animate Floating Action Button to Bottom Sheet Dialog and vice-versa

Describe how you will implement Google Play Services or other external services.

- android-vision : To extract text from Image or capturing from Camera.
- AdMob : by displaying an Ad banner within the app

Next Steps: Required Tasks

Task 1: Project Setup

- Create new Project
- Configure the required dependences in the build.gradle file and ensure that everything is compatible and there is no errors.
- I will make a wireframe of all the Pages in the App
- Will gather information of all required libraries and workflow of them.

Task 2: Implement UI for Each Activity and Fragment

- Build UI for MainActivity
- Build UI for the Auto Generate Activity
- Build UI for the FAB Menu
- Build UI for the fragments: Notes Reader UI
- Build UI for Capture Pic
- Build UI for Import Image from Gallery

Task 3: Handling the network connection

- Create a AutoGenerate class and async task to fetch the data form online from random site, clean and extract text data, set it up and add permissions in the manifest file to connect to the Internet

Task 4: Build data persistence support

- Build a contract class
- Build a Dbhelper class to create the table in the database
- Build a content provider to access the database
- Create a loader to update the saved articles views

Task 5: Implementing OCR setup

- Setup android-vision dependency
- Implement methods for taking Image from gallery to extract text
- Implement methods to Capture from camera and extract text data
- Implement methods to save data in DataBase from OCR process

Task 6 : Implementing RichTextEditor setup

- Setup Android-WYSIWYG-Editor in dependency
- Implement methods to handle data in RTE.
- Implement methods to edit or format of existing test notes.
- Implement methods to save data in DataBase from OCR process

Task 7 : Build the app widget

The app widget will display the titles for the saved notes list

- Build the widget layout
- Build the widget provider class
- Build a service to update the app widget

Task 7 : Implement Google play services

- implement Ads support
- android-vision google service updated

Task 8 : Configure app building

- Configure app signing including the keystore and the passwords in the repository