Android Dev

Sai Kalyana Raman(U24553100)
Shatrugna Rao Korukanti(U43517028)

Overview

Our project is to build an utility android app. It is similar to the present day Notion app. We aim to provide tools in assisting document generation and also integrate with google drive storage medium. We also plan to integrate live collaboration, p2p video and voice chat and workspace sharing. The app will be using markdown markup language to dynamically generate ui elements and for easy storage of the user document.
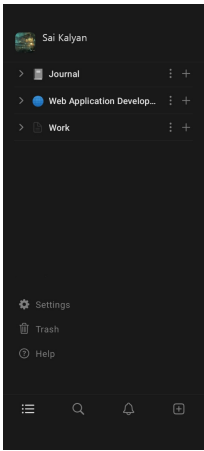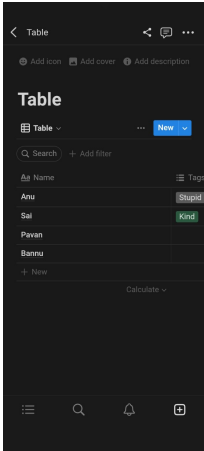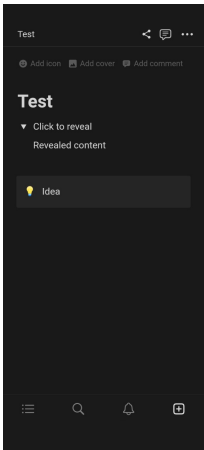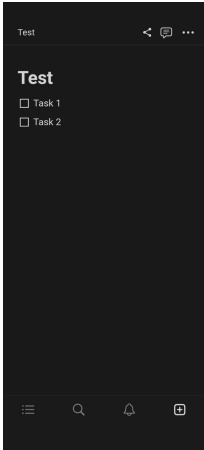
Related Work

It is simlar to Notion app, and has few unique features. One which is integrating with Gdrive, and p2p video and voice chat. There could be a downgrade in the visual elements due to material design constraint in android.
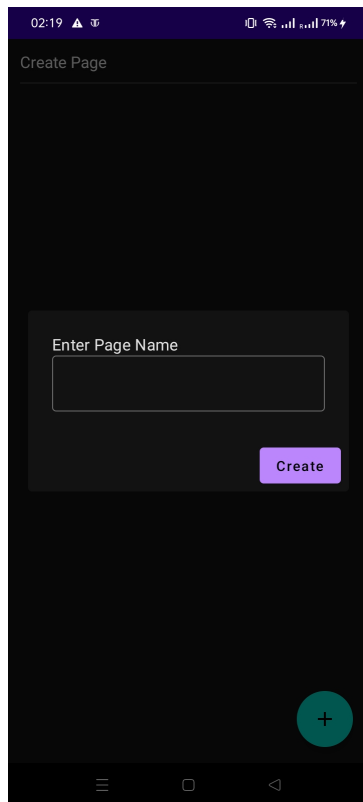
Requirement Analysis and Testing

Title	View project details (Essential)	View project details (Desirable)	View project details (Optional)
Description	Our project is to build an utility android app similar to Notion app. We aim to provide tools in assisting document generation and also integrate with google drive storage medium.	Additionally, We plan to integrate live collaboration, p2p video and voice chat and workspace sharing as desirable options.	The app can also have markdown markup language to dynamically generate ui elements and also for easy storage of the user document.

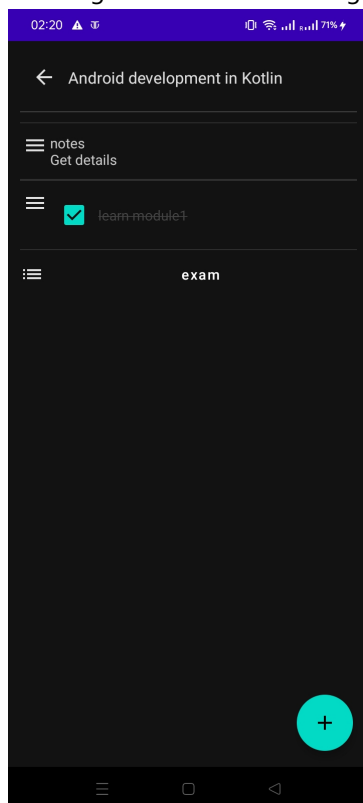| Title	View project details (Essential)		View project details (Desirable)	View project details (Optional)
Mockups	**sample_main**	**sample_page1**		
Acceptance Tests	UI components dynamic creation and data Retention of notion app in GDrive.		Testing of p2p networking, voice chat and live collaboration	markdown parser development
Test Results				
Status				

Design and Implementation

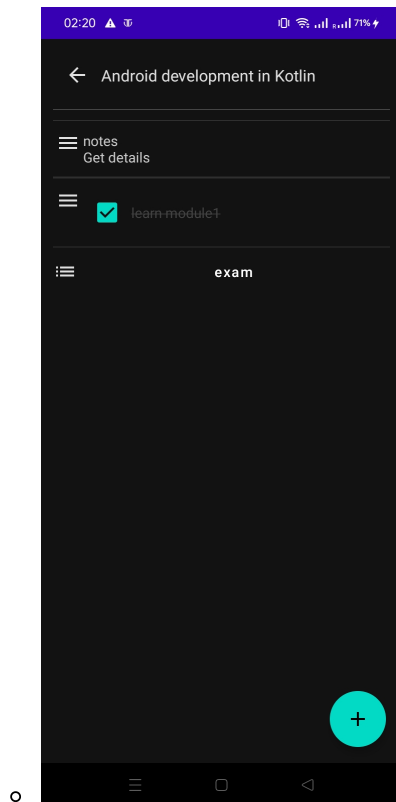- UI design and implementation
  - Jetpack Compose UI elements.

- Activities
  - There are 2 main jetpack UI pages MainPage, Page.
  - MainPage contains link to navigate other pages.

  - The Page can contain multiple components like textField, toDo checkbox, and link to navigate other pages.

- Third party APIs
  - usage of Jackson Core for json serialization and deserialization.
- Database schema, data storage
  - The data of the pages and info are stored in the data store shared preferences. There will be a plan to move the db api to android room api.
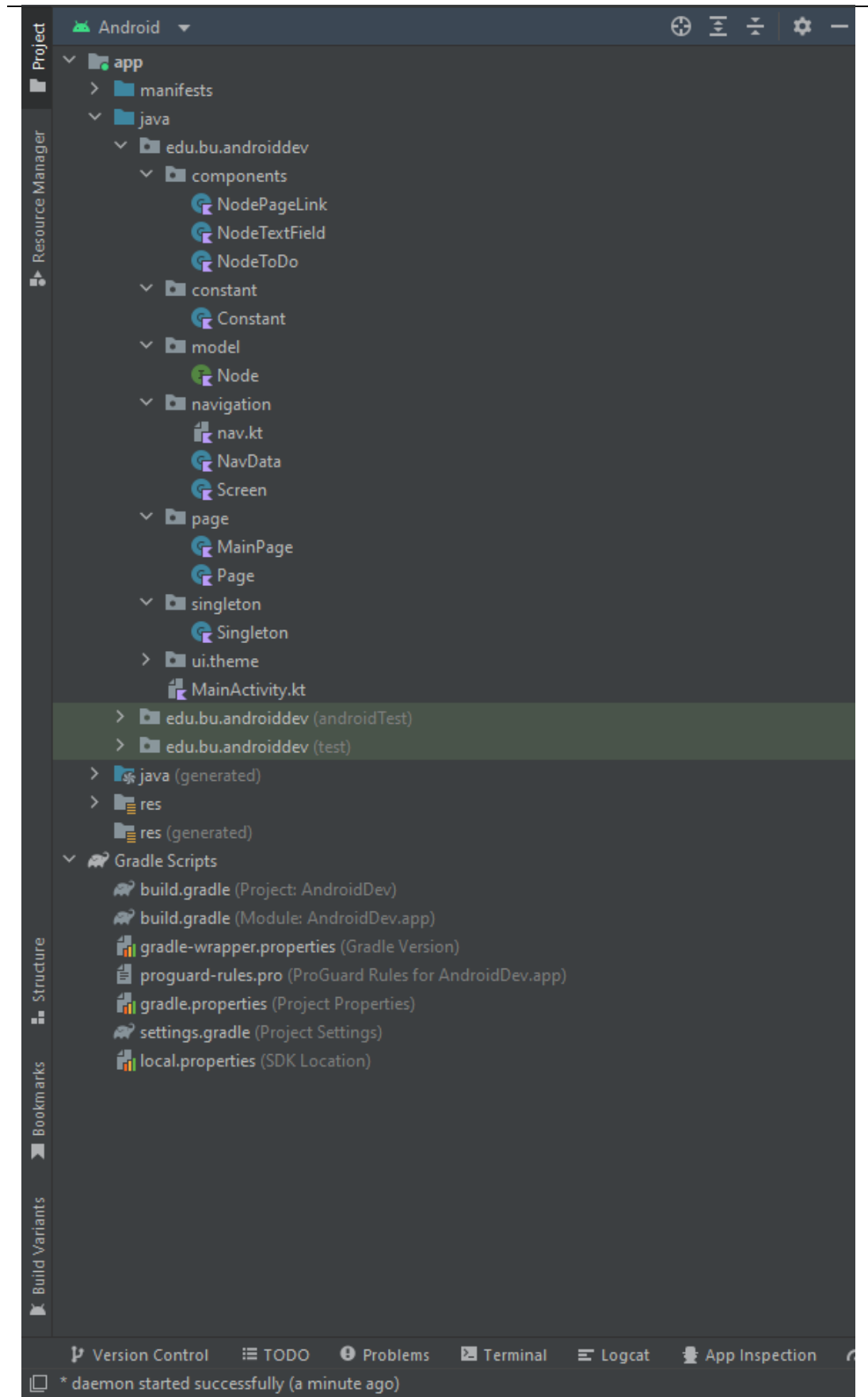

Project Structure

Iteration 1

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Timeline

Iteration	Application Requirements			Android Components and Features	member 1 contribution/tasks	member 2 contribution/tasks
1	**Essential**	**Desirable**	**Optional**	Jetpack Compose	Design and implement app layout, Functional Implementation of components	Navigation implementation, data storage of the UI components. Testing of the app and performing minor fixes.
	App Layout UI tools development	Complex UI development such as table and kanban board	Hyperlinks and image ui integration.			
2	**Essential**	**Desirable**	**Optional**	Google Drive Kotlin APIs'	GDrive Integration	P2P Networking implementation
	Serialization of UI data and integrating gdrive api.	Integrating voice and video chat using webrtc protocol.	serialization of data in the form of markdown markup language.			
3	**Essential**	**Desirable**	**Optional**	JUNIT and UI Testing	JUNIT test cases and live Testing of the app	Live Collaboration feature implementation
	Unit testing of functional components and gdrive api.	Live collaboration of the document with invited friends.	None			

Future Work (Optional)

Iteration	Missed Implementation
1	Image component implementation missed due to time constraint.
	Table component implementation missed due to not being able to figure out the implementation in jetpack compose.

References

[Notion app](#)