

Group 5

Email Client

Mobile Application Development



Sign In

Getting started with mail API.



☐ Remember me

[I forgot my password](#)

[+ Use your current Gmail address](#)

Log In

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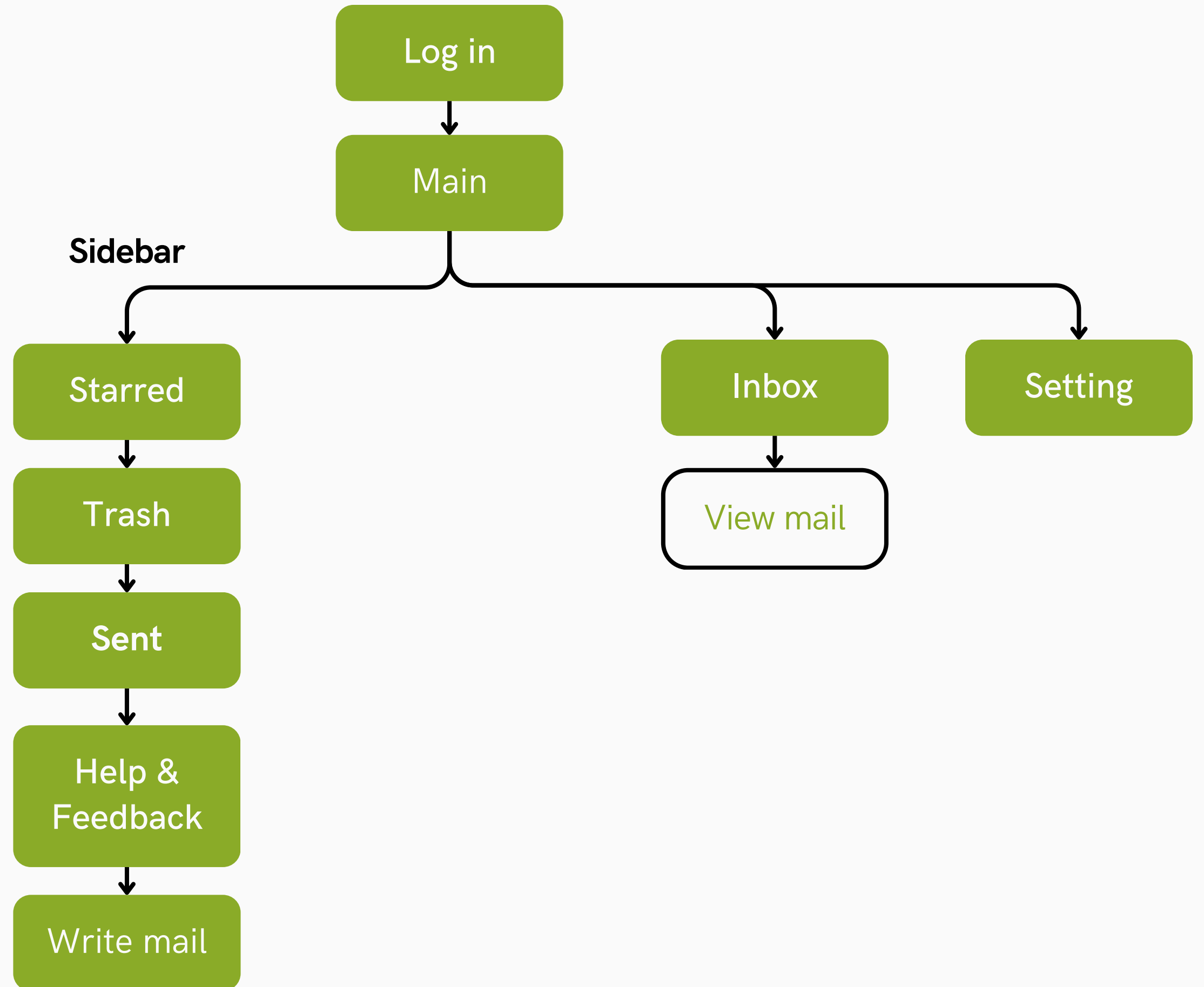
Demo



Introduction

- Email is a communication method using computer network
- Use:
 - Access, send and manage mail easily
 - User-friendly interface
 - Additional features: Filtering, spam protections, etc.

Architecture



Activities



AuthActivity

- Handles Google Sign-In and retrieves credentials.
- Requests authorization to access Gmail.
- Creates a Gmail API service with authorized access.



EmailDetailActivity

- Displays email details.
- Uses the Gmail API to handle email interactions using the provided access token.



SearchActivity

- Sets up a UI for searching and viewing emails with a *RecyclerView*.
- Uses the Gmail API to fetch and display emails based on a search term.

Activities



HelpFeedbackActivity

- Open app, pre-filled with an email address, subject, and message body, allowing the user to send feedback directly to the support team.



WriteActivity

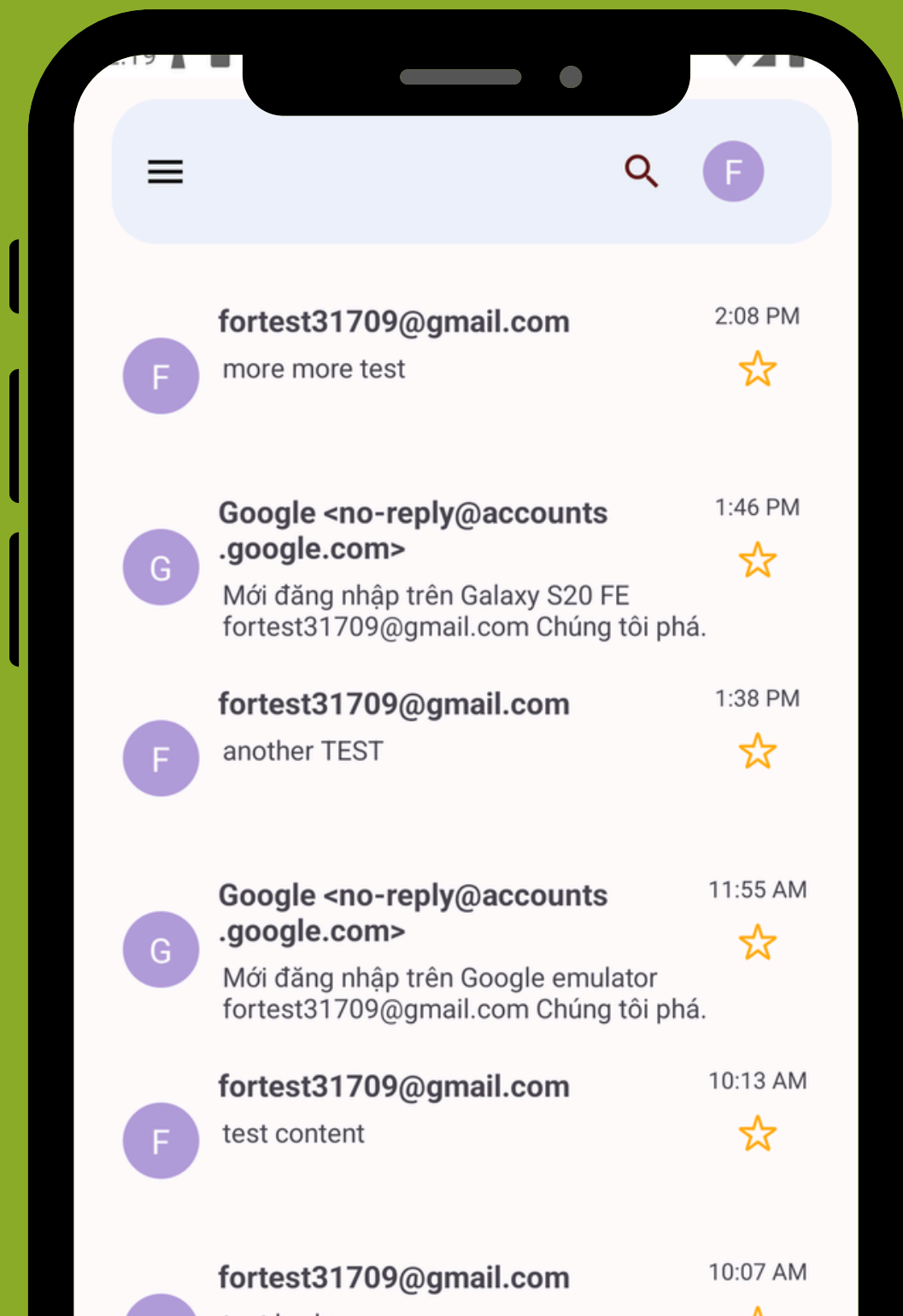
- Used to compose email
- Retrieves accessToken and userId to authenticate with Google



TrashActivity StarredActivity SendActiviy

- Uses a *RecyclerView* to list emails (depending on the selected item ID) retrieved from Gmail.
- Includes a navigation sidebar and a bottom menu

Networking



Connection

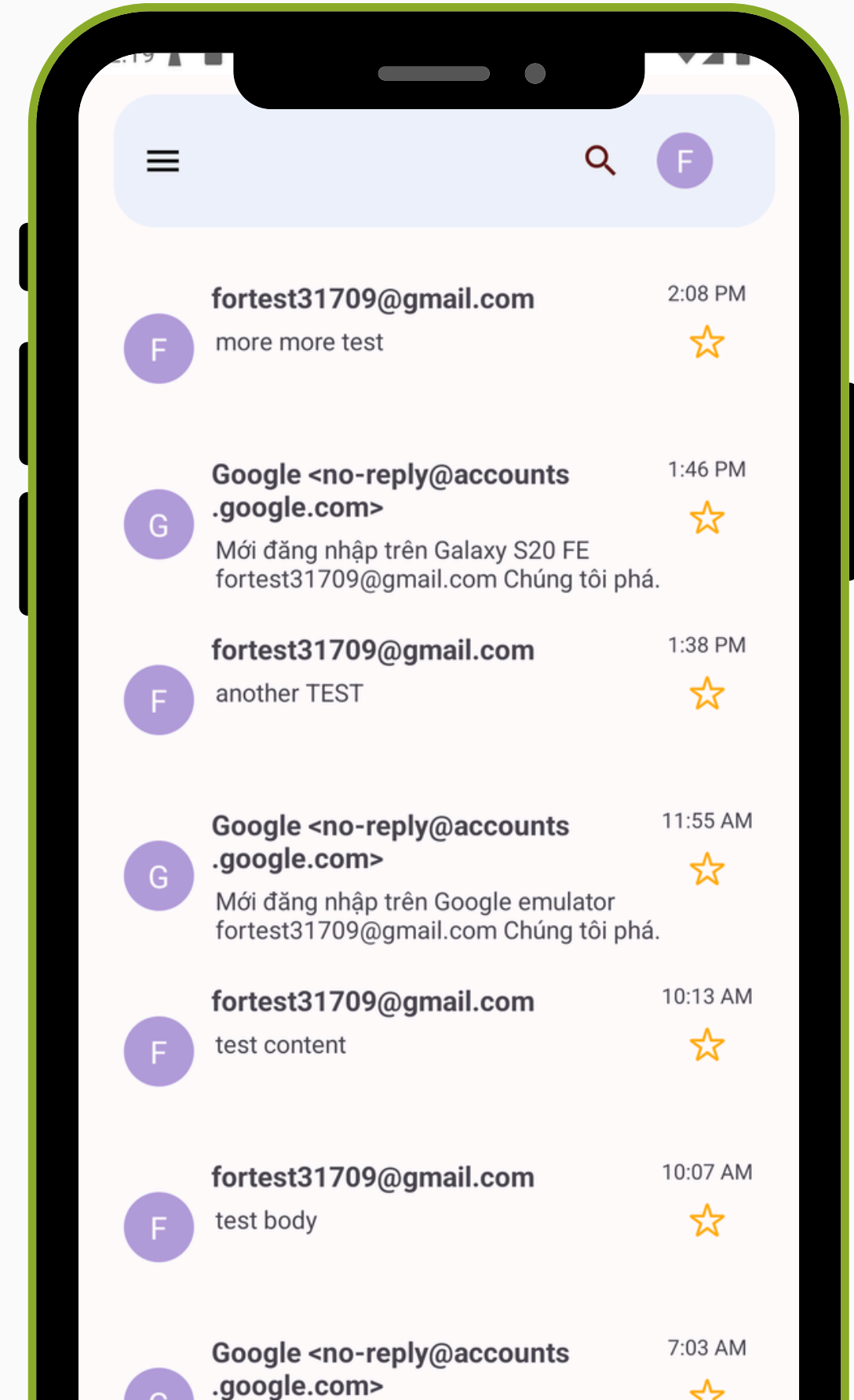
- Gmail API endpoint
- **Authentication** (with CredentialManager): Google Identity Services
- **Authorization** (with AuthorizationClient): Google's authorization servers
- Using Async access

Process

- User needs to sign-in with Google account
- **Authentication:** Google verifies both the app and the user, authenticate every time it attempts to access the API
- **Authorization:** Defines the data and actions requesting from users, then grants access specific data and actions that the user consents to.

Optimization

- Clean structure
- Threads optimize



Thanks for listening!

