LetterShelf – A Newsletter Reading Application

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Abstract

A Newsletter is a periodical, delivered to its subscribers via email. Newsletters traditionally were used for business advertisement. But nowadays, some organizations have started using them to provide daily news, insights, reviews, financial reports, etc. Although newsletters have changed, most of the users read them through their default email clients (Gmail, Outlook, etc.). Reading Newsletters from the default emails clients, can be a little frustrating, as the newsletters are mixed with other emails, and advertisements. This paper represents an app which is an email client that can be used to sort out newsletters from normal emails. It also provides a dedicated explore page, for users to explore new newsletters amongst different categories.

Key Words: *newsletters, email client, sort out newsletters, explore page, reading newsletters.*

1. INTRODUCTION

Email Newsletters, used to be a way of advertising and selling services and products for organizations. However, newsletters have changed from an organization focused product selling medium to a more user focused content consumption service. A short e-newsletter in our in-box can provide invaluable insights into key information with links to more in depth articles for a deeper dive [1]. News organisations such as the New York Times and Washington Post each offer almost 70 different scheduled emails showcasing the work of different parts of the newsroom including business, technology, culture, and sports [2]. Along with periodical emails, some organizations also provide event-based newsletters.
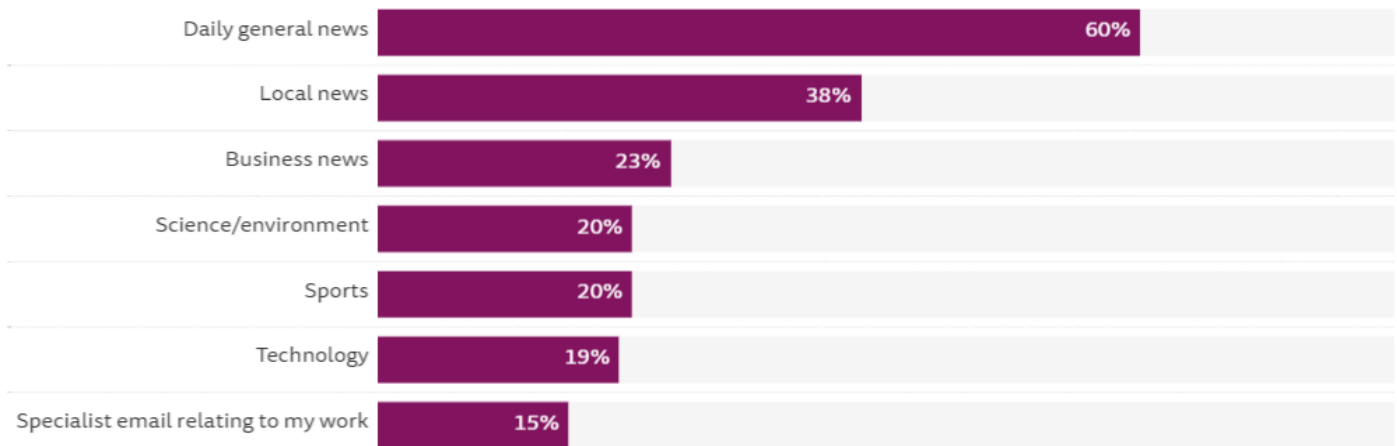
Q10b_EMAIL_TYPES_2020. You say you use email to access news. Which of the following types of news emails do you get sent? Please select all that apply

Base: Those who get news via email in US, UK, Germany, France, Italy, Spain, Ireland, Norway, Sweden, Finland, Denmark, Belgium, Netherlands, Switzerland, Austria, Japan, S Korea, Hong Kong, Australia, Canada, Argentina.

Figure – 1: Proportion of Newsletter Users that get different types of Email Newsletters

1.1 Benefits or Reading Newsletters

- Newsletters provide an isolated reading environment, without any distractions.
- People still love to read long-form content – where you get to deep-dive into a subject.

- You can read only what you want, or how much you want, unlike video content where you have to go through the whole video to know if the content is something you want to know more about.

1.2 Current Situation for reading newsletters

Most of the users use their default email clients (Gmail, Outlook, etc.) for reading newsletters. The received newsletters, are not categorized or labelled, and are mixed with other important mails. Some users also create multiple accounts to separate work mails from newsletters. Also, in some cases newsletters end up getting labelled as promotion or spam. All of these small things create an inconvenience in content consumption.

2. LITERATURE REVIEW

Before the deployment of this application, we have searched for applications/services that may have similar or better offerings, following is the summarization of our findings. Erim Franci et al. (2021) launched "Meco" a newsletter reader application for iOS platform [3]. This application works with Google's Gmail API because of which the user only needs to sign into the app using their google account. The application fetches the data from Gmail API and then checks for newsletters among all the mails. The app currently shows only newsletters. Other mails are not displayed on the application. The application also provides a explore screen where you can look for other newsletter providers.

Edison Yap et al. (2019) launched "Slick Inbox" [4]. Slick is an application that manages and organizes newsletters. Although unlike Meco, slick uses its own domain name "@slickinbox.com" instead of the traditional "@gmail.com" domain name. Along with this, only newsletters are displayed on the app and normal emails are not fetched. If you use slick signing up for newsletters is different that usual. Usually, newsletter providers have a portfolio, or a webpage where the user's email address can be submitted. However, if you are using this app you have to provide your slick username that was created during sign-up instead of your email address. This means that you have to remember your slick username while signing up for new newsletters.

Tim Raybould, Beah Burger-Lenehan et al. (2019) founded Stoop - a SaaS and app-based platform publishing newsletters. The platform allows users to find and organize email newsletters, share newsletters with other users, save links, and more. The app is available for Android and iOS devices. Stoop provides its own domain name "@stoopinbox.com" that users can use to signing up for newsletters instead of using their email addresses. Stoop also provides a premium subscription of their app for more features like loading large number of newsletters, dark mode, etc.

3. PROPOSED SYSTEM

On the first login the user will be presented with the login page. The application uses Google's Gmail API for reading and managing user's emails. Hence, for signing into the application, the user simply needs to log in using their google account, and grant the required permissions to the app.

Once successfully logged in, the user will be redirected for the account setup, the app checks for newsletters in your emails from last 14 days, the user can then select which newsletters they want to be shown in the application, more newsletters can be added later on. After the setup is completed, the user is taken to the Home Screen.

Along with the inbox where user can read and share newsletters, the app also consists of an explore page that gets dynamically updated as per the data stored in the database. The explore page contains top curated newsletters, with popular newsletters of different gernes. This helps user to find the best content of their liking and saves time as compared to surfing through articles and videos for new recommendations. All the newsletters are stored in firebase real-time database. Each newsletter in the store contains a brief description of it, along with sample images and the frequency of publishing. Along with this, a direct link to the subscription page is provided, to make the whole process more efficient. Once the user registers for the newsletter, the application asks if the user want to adds this newsletter to the current list.

SYSTEM ARCHITECTURE

Flutter:

Flutter is a new cross-platform technology that promises high-performance apps that feel natural on different platforms [26]. It provides widgets for Android and iOS that delivers a highly native experience. This new technology could therefore be a good candidate to create cross-platform apps that provide high user satisfaction.

Firebase Cloud Firestore:

Cloud Firestore is a flexible, scalable database for mobile, web, and server development from Firebase and Google Cloud. Like Firebase Realtime Database, it keeps your data in sync across client apps through real-time listeners and offers offline support for mobile and web so you can build responsive apps that work regardless of network latency or Internet connectivity. Cloud Firestore also offers seamless integration with other Firebase and Google Cloud products, including Cloud Functions.

SYSTEM DESIGN
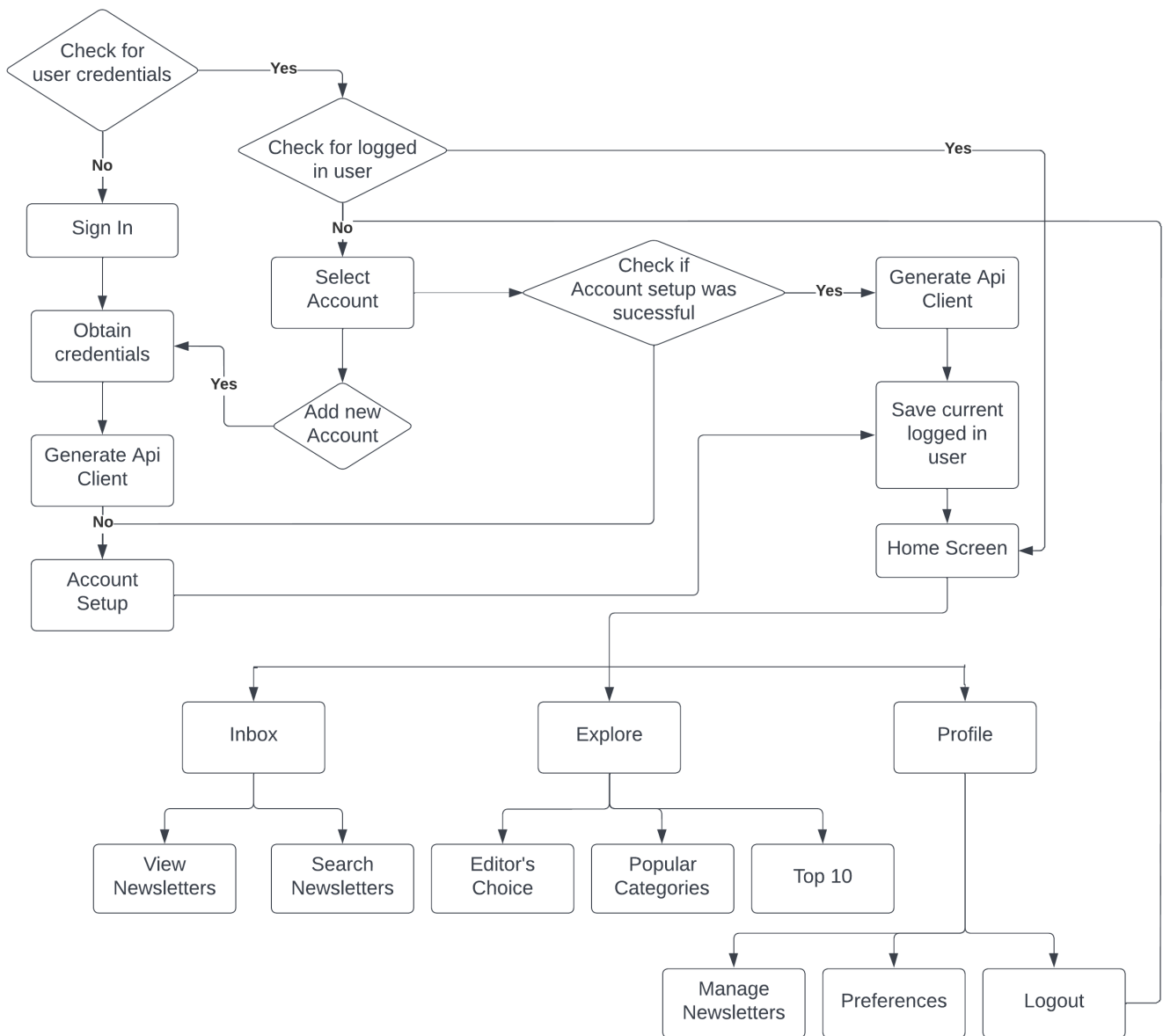
4. RESULTS

Show below are the screenshots of the various pages of our application.

4.1 Sign-in Page

The Sign in Page is shown if there are no accounts logged in, the user has to sign in with google to use the app.
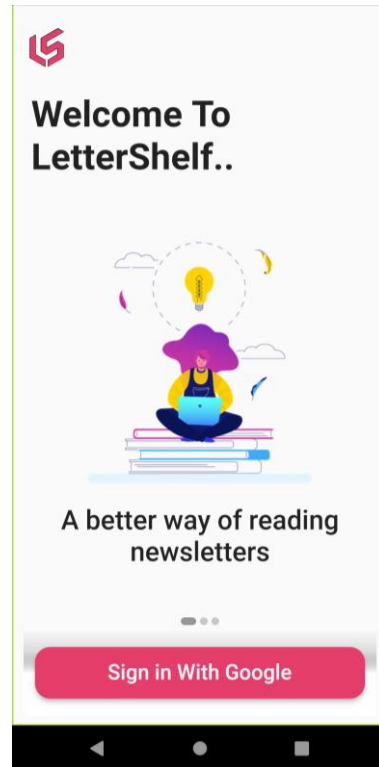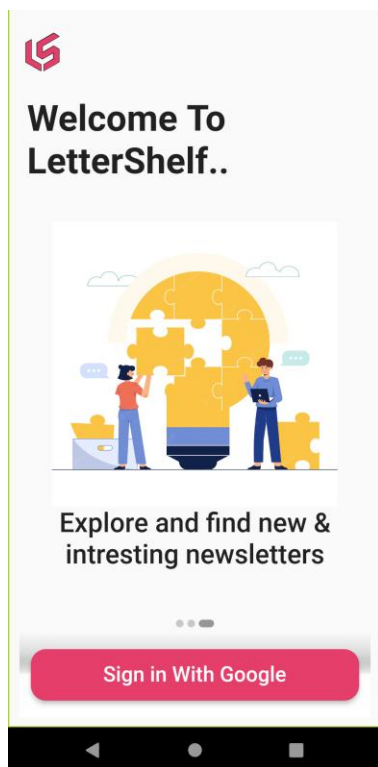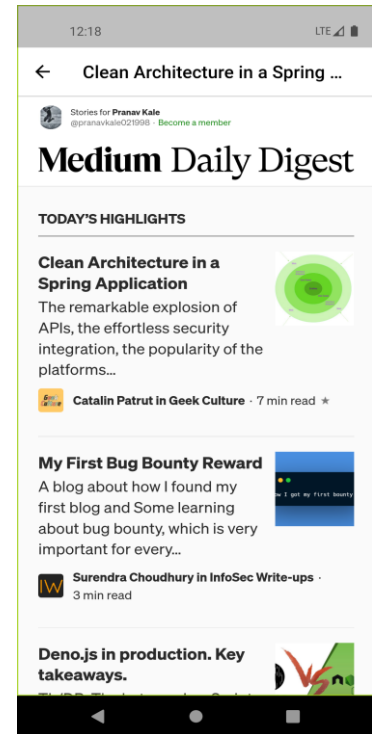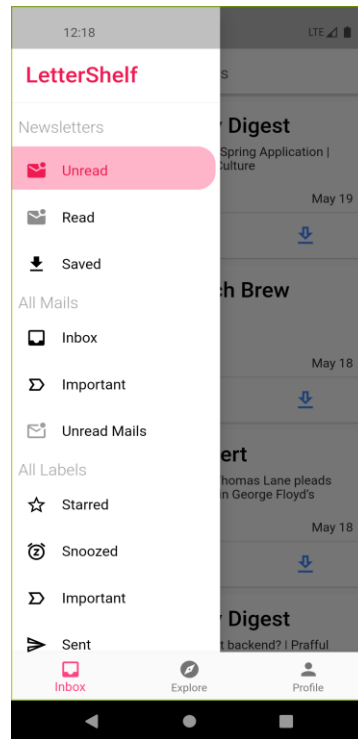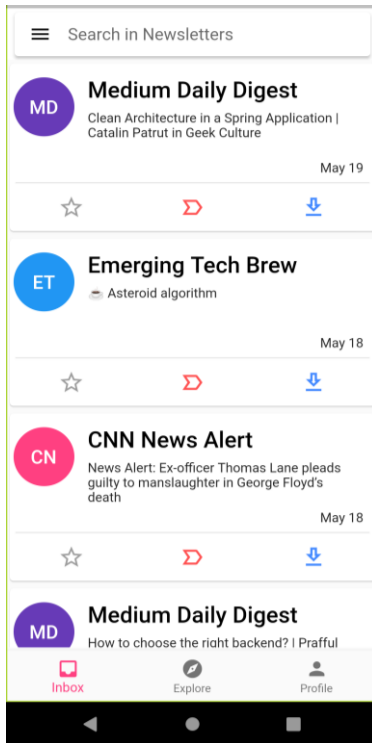
4.2 Setup Screen

The app checks for newsletters in the inbox of the last 14 days. This list can be altered later on.
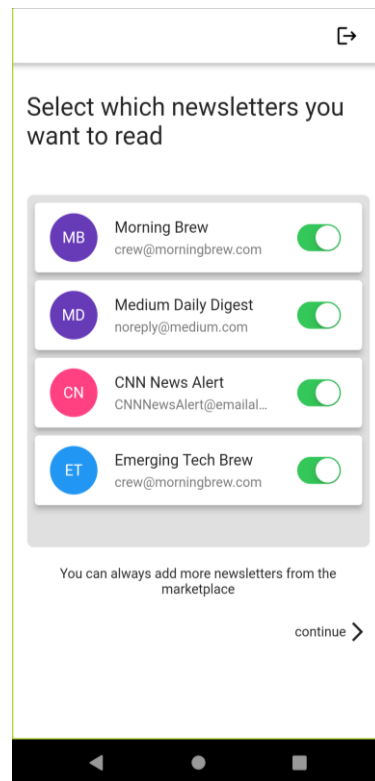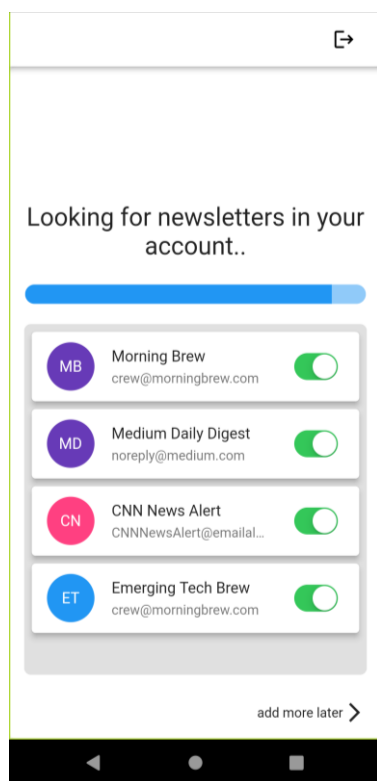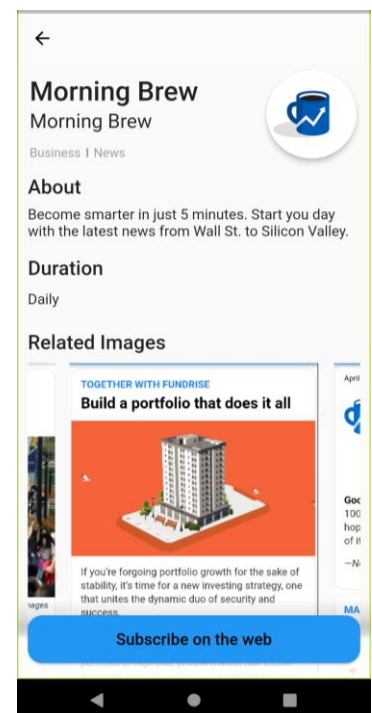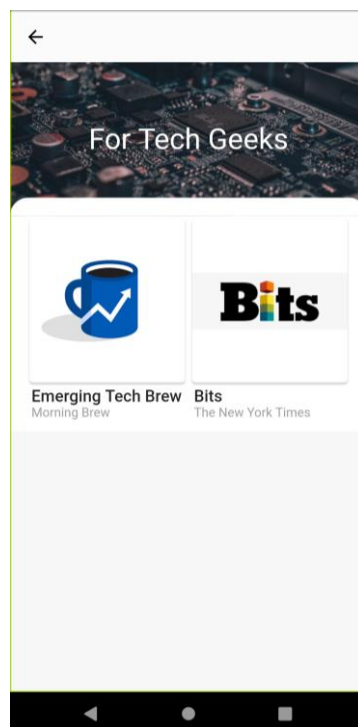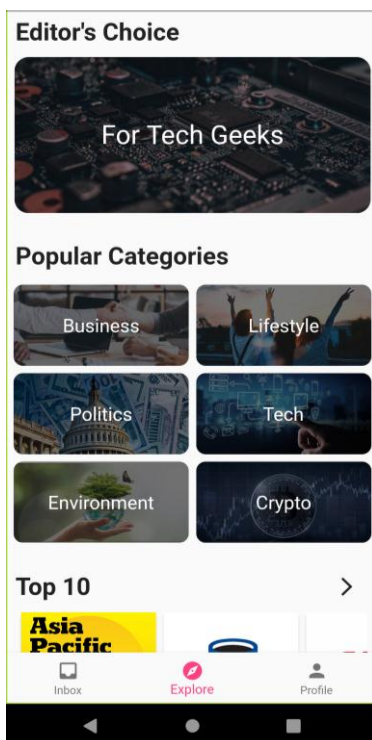
4.3 Home Screen

The Home Screen shows all the newsletters, users can also access their normal emails within the application.

4.3 Explore Screen

The Explore Screen shows top newsletters from different categories and some of the Editor's choice newsletters.

5. CONCLUSION

Based on the results, the main objective of implementing a newsletter reader using Flutter has been achieved. The purpose of the project is to provide a better and improved experience for accessing newsletters over the traditional email clients. Having a better and refined experience for content consumption helps to reduce gap between the readers and the actual content. At the same time the explore section for discovering new newsletters and increasing the overall productivity.

6. REFERENCES

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