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OpenJ – The News Application

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Abstract: Journalism is fully knitted into the web of information that exists in the world today. It links to it; sifts and filters it; collaborates with it and generally uses the ability of anyone to publish and share material to give a better account of the world. Rather than considering open journalism a mode of journalism or as a type of journalism, we consider open journalism a system, or a form of the organization including different forms of journalism that are often produced by a third party.
Keywords: Mobile Journalism, Flutter, Firebase.

I. INTRODUCTION

In this growing period of times and vast communication within the days, the incidents happen rapidly and the news got published or post on the internet but we can't predict how much of it are truly correct. So this project aims to overcome those fake news and provide reads 100% of verified news that will be published on this application the news will be verified by an experienced journalist The latest technology that is used to build this application is "Flutter" which is Google's portable UI toolkit for crafting beautiful, natively compiled applications for mobile, web, and desktop from a single codebase.

Flutter is used by developers and different organizations around the world. It is free and open source and works with existing code. The second is "Dart" which is an Open-Source and client-side programming language. It is easy to learn and creates high-performance applications. And the "Firebase" is a Backend-as-a-Service (BaaS) app development platform that provides hosted backend services such as a real-time database, cloud storage, authentication, crash reporting, machine learning, different remote configuration, and hosting for your static files. Firebase also supports Flutter. Where invoking, connections and validation will be done on Blockchain.

Journalism is the collection, development, and distribution of news via photographs, print, and electronic media. Social media has risen over the last ten years has seen that the ways of news is reported and digested by all parties within journalism have significantly changed, traditional Journalism is using social media for promoting and delivering their work to increase their audience base. Open Journalism is trending and making easier to share information in this digital era. Anyone with proper information will be able to contribute. As we know in today's world of social media, news got broadcast widely and rapidly but we didn't know how much of it are correct or true. The broadcasting of fake news is increasing day by day so it's hard to believe the news. So to overcome this problem that is faced by today's world we are developing an application that is "Open J - The news application". Open-J is an application that helps us to get 100% verified news from the journalists and experts themselves. In this application, the journalists will first verify if the news is 100% correct or not then only it will be sent to the reader. Our project aims to provide 100% verified news to viewers.

The use of software like Flutter and Firebase and Android Studio is used. Flutter is an open-source framework for developing attractive interfaces. Flutter is developed by Google. Firebase is used to connect and authenticate with the app. Firebase also provides a safe and authentic connection between servers.

II. WHY IS MOBILE JOURNALISM IMPORTANT?

To take a Photograph of any news at a special moment you require a camera with you all the time. If you are lucky to get a good snap then the odds are by the time you make the final version of the photo and send it to your local news station, the reporting of the story has been already finished by their professional photographers and reporters. Nowadays, everyone has a Smartphone so they can capture a picture and video and post it on their social media, and then the news gets easily circulated within a few minutes. So virtually anyone having a phone can become or do mobile Journalism. Mobile Journalism has many benefits over traditional journalism. The benefits of our application are as follows:

It's Affordable. The main point is that mobile journalism is affordable as manual journalism requires high quality cameras for capturing videos, audio etc. This requirement of high end devices is reduced by mobile journalism.

It's Flexible. The journalists need to carry heavy equipments in their vans if they receive news, but in mobile journalism it's only the phone and user that play the role as a journalist. They don't need heavy equipments to carry along with them all the time.

It's Empowering. With all that newfound flexibility and mobility comes independence. Working on your means you get the freedom to choose what story you want to tell. Your phone empowers you to control every aspect of production, meaning you get the opportunity to make your voice heard.

It's Discreet. Often journalists cannot go to specific locations because of their heavy equipments with them. In case of mobile journalism, the user can go anywhere with nothing to carry but his Smartphone with him.

It's Friendlier. There are many news channels which carry big camera devices to shoot a local citizen, celebrity or someone else. People often get discomfort in front of big cameras. In case of mobile journalism, the person in front of the camera won't be afraid of facing the camera because the camera is a Smartphone and many people are familiar with a Smartphone's camera.

It's Safer. Journalism is an uncertain business. In a natural disaster or coverage from a war zone, adding a story can be risky. Doing it from a mobile device can allow you to be more mobile, and not draw attention to yourself when in these riskier situations.

III. PROPOSED METHODOLOGY

This study focuses on building a News App that gives us 100% verified news by making step-by-step verification by journalists and journalism professors. The app is built on flutter using the programming language Dart, i.e. the programming language of Flutter itself. As flutter is the best tool to develop mobile applications we have used flutter. Flutter is a very convenient and useful tool in terms of mobile application building.

The project is a verified news application that requires login to start using it.

There are four different types of accounts in our application:-
1) *Admin:* This is the user or person that adds news to the application
2) *Journalist:* The role of the Journalist is to verify the news.
3) *Professor:* The Journalism Professor will again verify the news.
4) *User:* The person using the application is the user. This is the viewer that can read the news. The last account is of a user in our application.

We have used Google Firebase for the backend programming. It is a Backend-as-a-Service (BaaS) app development platform that provides hosted backend services such as a real-time database, cloud storage, authentication, crash reporting, machine learning, different types of remote configuration, and hosting for your static files.

We used Google Firebase for backend programming. Firebase is a Backend-as-a-Service (BaaS) application development platform that provides hosted backend services such as real-time database, cloud storage, authentication, crash reporting, machine learning, different configuration, and hosting for your static files. Firebase offers many services that are:

a) *Analytics:* Google Analytics in Firebase offers free and unlimited reporting on up to 500 individual events. Analytics provides data about user behavior in iOS and Android apps, enabling better decisions to improve app performance.

b) *Authentication:* It is easy for developers to build secure authentication systems and improve user sign-in and on-boarding. This feature offers you a complete identity solution, supporting email and password accounts, phone authentication, and logging into Google, Facebook, GitHub, and Twitter.

c) *Cloud Messaging:* It is a cross-platform messaging tool that enables companies to reliably receive and deliver messages on iOS, Android, and the web for free.

d) *Real-Time Database:* Firebase Real-Time Database is a cloud-based NoSQL database that allows data to be stored and synchronized between users in real-time. Data is synchronized across all clients in real-time and is still available when the application goes offline.

e) *Crashlytics:* A real-time crash reporter helps developers track, prioritize, and fix stability issues that degrade the quality. Developers spend very less time organizing and troubleshooting crashes and more time building app features.

f) *Performance:* Firebase Performance Monitoring provides developers with insight into the performance characteristics of iOS and Android apps to help them determine where their app performance can be improved.

g) *Test Lab:* Firebase Test Lab is a cloud infrastructure for testing applications. With a single operation, developers can test their iOS or Android apps on different devices and configurations. In Firebsse console you can see the results, videos, logs and screenshots.

IV. FLOW CHART OF PROJECT PROCESS

The workflow for developing an app for Android is conceptually the same as with the other application platforms. However, it is to efficiently build and well-designed application for Androids, you require specialized tools. The following is the list that provides an overview of the processes to build an Android application.
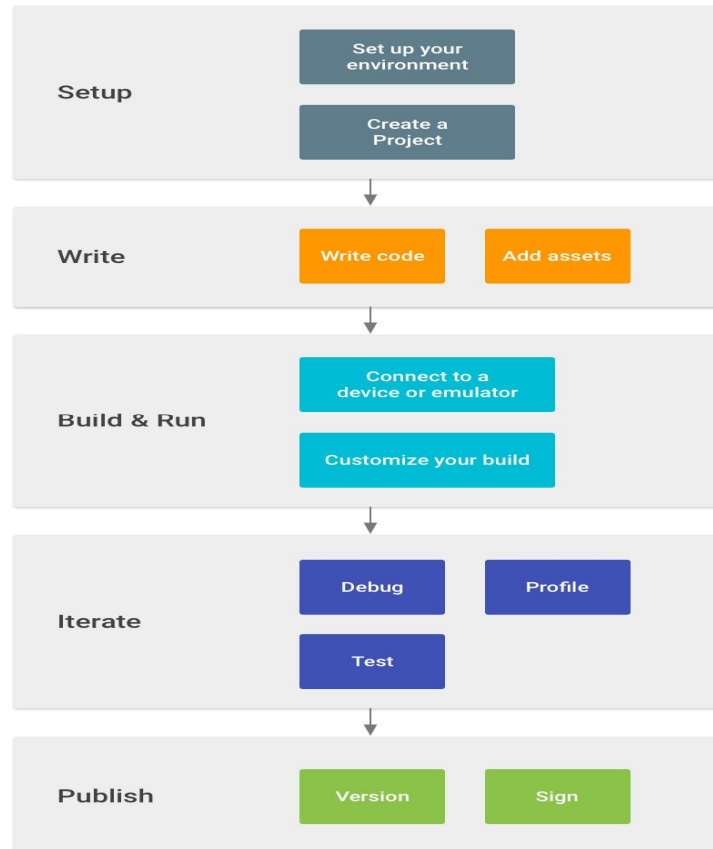
A. Set Up Your Workspace
This is the first phase we already finished: Install Flutter and create a project.

B. Write Your App
Now you can get to work. Flutter has a variety of tools and intelligence which helps you work faster than others, write quality code, design a UI, and create resources for different device types.

C. Build And Run
During this phase, you will build your project in a debuggable APK package that you can be used install and run on the emulator or an Android-powered device. You can also customize your builds. For example, create build variants that will produce different versions of your app from the same project, and this will shrink your code and resources to make your app smaller.

D. Debug, Profile, And Test
It is the iterative phase where you continue writing your app but with a focus on eliminating bugs and optimizing application performance. Creating tests will help you to a greater extent.

E. Publish
After all phases you're ready to release your app to users, there are just a few more things to consider, such as versioning your app, building an Android App Bundle, and signing it with a key.

V. RESULT

The first step was to build a Login Screen.
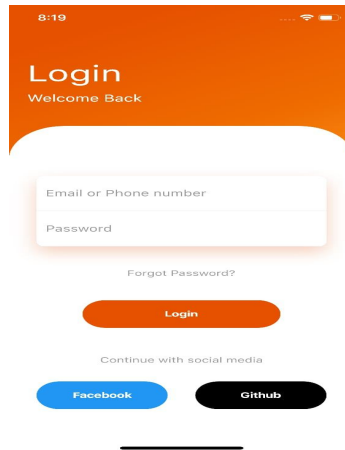
We created a login screen with the help of Flutter which could create all the types of above-mentioned accounts. The login has a 'Login' option that can be used to sign in to the application by entering an e-mail id or phone number and password. The "Email or Phone number" and "Password" are required or else you won't be able to log in. The user can also sign up using social media handles such as Facebook and Github. By entering the social media handle's e-mail id and password, one can log in to the application. After getting logged in the next interface will appear like this.

This is the interface after login. This interface shows the news feeds and the percentage of verification. It also shows

The date of posting, the location as well as the name of the person who posted it.
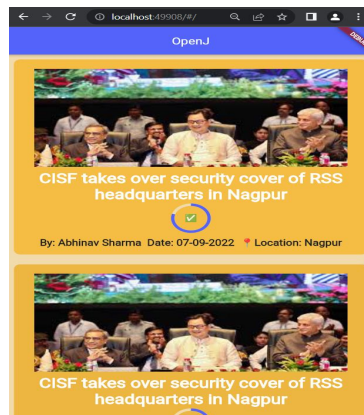
After opening the news, we will see an interface like this.
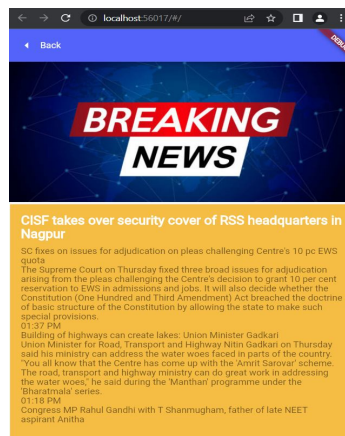
VI. CONCLUSION

We have successfully designed and implemented OpenJ – The News Application. We have also learned and implemented many things like Flutter, Dart, Android Studio, and Firebase. Flutter is used because it is an open source frame work and helps to make you application more beautiful, it compiles stored procedure into machine language, you can make multi – platform application from a single codebase. Dart is a client-optimized language used for developing fast apps on many platforms. Its main goal is to offer the most productive programming language for multi-platform development, paired with a flexible execution runtime platform for app frameworks. Android Studio is an official integrated development environment for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android Development.

Firebase is used as a set of hosting services for any type of application. It offers NoSQL and real-time hosting of databases, different types of content, social authentication, and notifications or services, such as a real-time communication server.

VII. ACKNOWLEDGMENT

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