

Text-it

Mrs. Anitha C S
Computer Science and Engineering
Sai Vidya Institute of Technology
Bengaluru, India

Prashanth Reddy P S
Computer Science and Engineering
Sai Vidya Institute of Technology
Bengaluru, India

Sandeep S Raghav
Computer Science and Engineering
Sai Vidya Institute of Technology
Bengaluru, India

Manjunath Madabhavi
Computer Science and Engineering
Sai Vidya Institute of Technology
Bengaluru, India

Nithin Singh E
Computer Science and Engineering
Sai Vidya Institute of Technology
Bengaluru, India

Abstract—Conversation through internet is starting to be truly necessary nowadays. A web communication lets the clients to talk with others quickly and benefits manner. Considering this, the chatting application should be successful off the writings or images or few other files in a faster way with least deferral or without postponement. Firebase is one of the levels which gives a steady database and cloud administrations which permits the designer to make these applications effortlessly. Texting may be taken into consideration as a stage to maintain communication. Android offers higher stage to create special applications for texting contrasted with different stages. Firebase presents crash reporting provider to deal with these crashes. This paper is concerned of a software program application for the establishment of a actual time conversation offerings among operators/users. Chat software many-to-many sort of communication gadget in which the users could be capable of trade the messages among themselves. User can share the required images, pictures, documents, PDF, messages to the other user multiple times. One end user can share these multiple times to other end user's at the same time.

Keywords—Firebase, Chat Application, Communication, Android.

I. INTRODUCTION

There are millions of internet users throughout our country India. This was projected to develop to over 1.5 billion customers by 2040, indicating a massive market capacity in internet offerings for the south Asian country. In fact, India became ranked as the second biggest marketplace worldwide in 2019, coming second only to China. The variety of internet users changed into envisioned to boom in both urban as well as rural areas, indicating a dynamic boom in access to internet. With this growth in the internet users, businesses started moving online and social media was exploding with content. This brought a huge behavioural change in the society. People started to send messages to each other rather than talking on the phone. It has become common that people especially people in age group of 15 to 30 rather type on their phone than talk. Nowadays, people have a habit of texting everywhere and on any type of occasion. In the market, there are hundreds of chat applications like WhatsApp, telegram, snapchat, messenger, skype, etc. in which WhatsApp has nearly 380 million active users worldwide and WhatsApp is the most used chat

application in India. These chat applications may have unique features i.e, for example snapchat is known for giving privacy to the user. These features are a little different, but all these chat applications have one thing in common and that is it enables a user to send a message. All these chat applications have one more thing in common and that is all of them do not have a feature which enables the user to send a calendar event. In conclusion, this project is about building a chat application which enables the user to send calendar events through our chat application. This application will have multiple features which includes sending a message to multiple users at once, scheduling a message, etc.

II. METHODOLOGY

A. Deployment diagram.

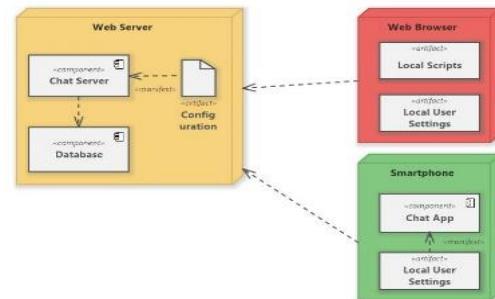


Fig.1.Deployment Diagram

The above fig.1 represents the deployment of chatting application shows how clients and server are connected.

- Any interactions done in the Chat Room is stored in the Server Database.
- Artifact and Manifest plays vital role here.
- Artifacts are model elements that represent the physical entities in a application .
- Manifest indicates that the artifact source embodies the target model element.
- A Manifest relationship indicates that the Artifact source embodies the target model element, typically in Component and Deployment diagrams. Stereotypes can be added to Enterprise Architect to

classify the type of manifestation of the model element.

B. Flowchart.

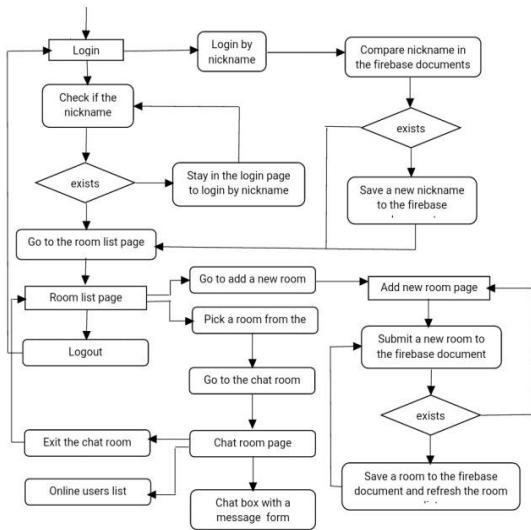


Fig.2.Flowchart using firebase

- User enter into login page as home page.
- User will enter his login credentials in the login page.
- Check if user's credentials present in local storage or firebase.
- User is unable login, until user's credentials is present in local storage or firebase as shown in fig.2.
- Else, User can sign up his account and login.
- User is directed to chat room list.
- Chat room is program that allow people to send text messages to one another in real time and scheduled time.
- User now have access to chat and add new room list.
- User can add room list.
- If room list exists in the system, user is directed to add new room page.

C. Sequence diagram.

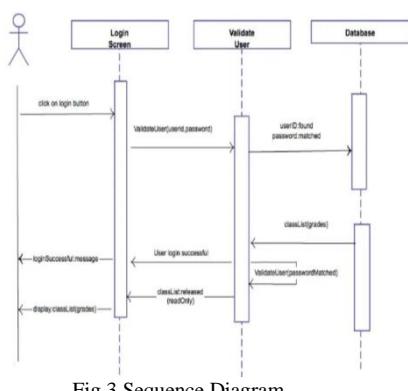


Fig.3.Sequence Diagram

- The above fig.3 represents the login sequence diagram of chat application system.

- Where user will be able to login in their account using their credentials.
- User enters login page and enters login credentials, next step is the entered credentials is validated by matching the details stored in database.
- If the credentials matches with details stored in database, the 'Login sucessful' message is displayed.
- After login user can manage all the operations on Notifications, Chat Profile, Chat, Delete Chat.

D. Dataflow diagram.

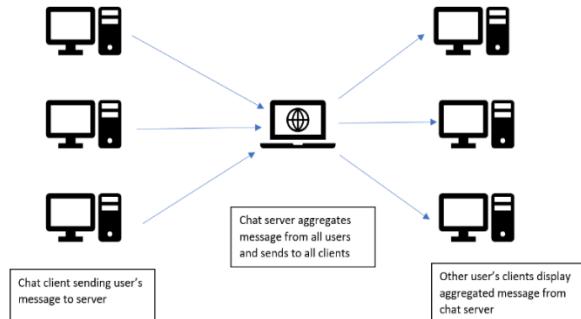


Fig.4.Dataflow diagram.

- The above fig.4 shows how the message is sent from one user to another user.
- Chat client sends the message to Chat server.
- Chat server aggregates message from all users and sends to all respective clients. Other user's clients display aggregated message from chat server.

III. REQUIREMENTS

Hardware Requirement :

- I. 4 GB RAM minimum.
- II. 2 GB of available disk space minimum.
- III. 1280 X 800 minimum screen resolution.

Software Requirements :

- I. Operating System : Android/iOS
- II. Tool : Flutter(Framework for application development) and Firebase(Real time Database)
- III. Language : Dart

IV. LITERATURE SURVEY

- A. *HOD. Dr R Juliana, Naveen Kumar VG, Richard G, Shivadarshini P Evecurate – A Smart Event Management App Using Flutter and Firebase International Journal of Scientific Research & Engineering Trends (2021) .*

The cellular application named “Evecurate” will ease the difficulties in the conventional event management pave manner for an change machine that is the smart occasion management.

1. This application includes QR technology which generates QR code for the event audience which is used for smooth test-in manner that is at some stage in the registration process.
2. The main feature of this application was projected in the event audience interaction module which was the unique one and allows the interaction to take place in a new way.
3. The application was not only designed for the event audience but for the event host too and features like task planner and budget planner were provided to support the event host. Finally, the Evecurate app was the perfect mobile application for both the event audience and the event host providing them a great usage.

B. *ApoorvaBagul, Pooja Sinkar, Priyanka Jadhav, DeepaliAhire, Prof. D. D. Sharma A MENTAL HEALTH TRACKER BUILT USING FLUTTER AND FIREBASE International Journal of Scientific Development and Research (2022):*

1. Intellectual health is an important to be monitored these days. With a huge population now working from home and staying away from loved ones, the mental health scenario has increased.
2. We attempt reaching this the usage of the associate App. Retaining in thoughts that users might be affected by intellectual infection and wouldn't want to interact lots with an app and have to design the app to be very friendly
3. We are overcoming the drawback of existing system, and providing a smart system that will not only monitor user mental health with security but also show recommendation whenever necessary. The undertaking centers around building an emotional wellness tracker.

CONCLUSION

Thus we conclude that using our application one can:

- I. Send Images, videos, audio, .pdf, documents, & many more to multiple contacts at once.
- II. Schedule a message to be sent at a particular time.
- III. Send calendar events from within the chat application.
- IV. To improve the users experience.

REFERENCES

- [1] HOD. Dr R Juliana, Naveen Kumar VG, Richard G, Shivadarshini P Evecurate – A Smart Event Management App Using Flutter and Firebase International Journal of Scientific Research & Engineering Trends 2021.(reference).
- [2] ApoorvaBagul, Pooja Sinkar, Priyanka Jadhav, DeepaliAhire, Prof. D. D. Sharma A MENTAL HEALTH TRACKER BUILT USING FLUTTER AND FIREBASE International Journal of Scientific Development and Research 2022.
- [3] Noor Azian Mohamad Ali, Ayn Nur Azhana Azhar Amanullah, The Most Favourable Mobile Messaging Apps among IIUM Students, international Journal of Science and Research (IJSR) ISSN 2012
- [4] Naser Zamani, Fatemeh Kazemi ,Ehsan Masoomi , Determinants of entrepreneurial knowledge and information sharing in professional virtual learning communities created using mobile messaging apps, Journal of Global Entrepreneurship Research April 2021.
- [5] Wei, X., Gomez, L., Neamtiu, I., Faloutsos, M.: Profiledroid: multi-layer profiling of android applications. In: Mobicom 2012.
- [6] Clifford, C.: Top 10 apps for instant messaging, Entrepreneur, 11 December 2013.
- [7] Chung, Y.W.: Investigation of energy consumption of mobile station for instant messaging services. In: ISADS 2011, pp. 343–346 (2011).
- [8] Sashikumar Ganapathy,Dirk F. de Korne, PhD,Ng Kee Chong, MBBS,Josip Car, MD, PhD, The Role of Text Messaging and Telehealth Messaging Apps, pediatric.theclinics.com 2019.
- [9] Marco Mason,Maria Renza Guelf, WhatsApp and other messaging apps in medicine: opportunities and risks, Internal and Emergency Medicine (2020).
- [10] Mohamed Abdalla Mokar, Sallam Osman Fageeri , Saif Eldin Fattah, Using Firebase Cloud Messaging to Control Mobile Applications ,International Conference on Computer, Control, Electrical and Electronics Engineering 2019.
- [11] Sai Spandhana Reddy Emmadi, Sirisha Potluri,Android Based Instant Messaging Application Using Firebase,International Journal of Recent Technology and Engineering, January 2019.
- [12] Divya Sharma,Hiren Dand, PhD,Firebase as BaaS for College Android Application, International Journal of Computer Applications , June 2019.
- [13] Anisa Rahmi, I Nyoman Piarsa, Putu Wira Buana,FinDoctor–Interactive Android Clinic Geographical Information System Using Firebase and Google Maps API,International Journal of New Technology and Research (IJNTR),July 2017.
- [14] Chunnu Khawas,Pritam Shah -Application of Firebase in Android App Development-A Study, International Journal of Computer Applications June 2018.
- [15] Ker-Chung Wann,Janusz Zalewsk - Scheduling Messages in Real-Time with Application to the SSC Message Broadcast System , IEEE TRANSACTIONS ON NUCLEAR SCIENCE,1994.
- [16] Nilanjan Chatterjee,Aakash Decosta,Souvik Chakraborty,Dr. Asoke Nath - Real-time Communication Application Based on Android Using Google Firebase, International Journal of Advance Research in Computer Science and Management Studies, April 2018.
- [17] Shady Boukhary,Eduardo Colmenares - A Clean Approach to Flutter Development through the Flutter Clean Architecture Package,International Conference on Computational Science and Computational Intelligence (CSCI) 2019.