CHAT APPLICATION USING FIREBASE

PRESENTATION BY,

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INTRODUCTION

- Customer feedback collection and support is one of the main impactful area of any business in todays world.
- User chat applications play a major role in the above mentioned area.
- There is a need for a lightweight application framework which can be integrated with any type application.

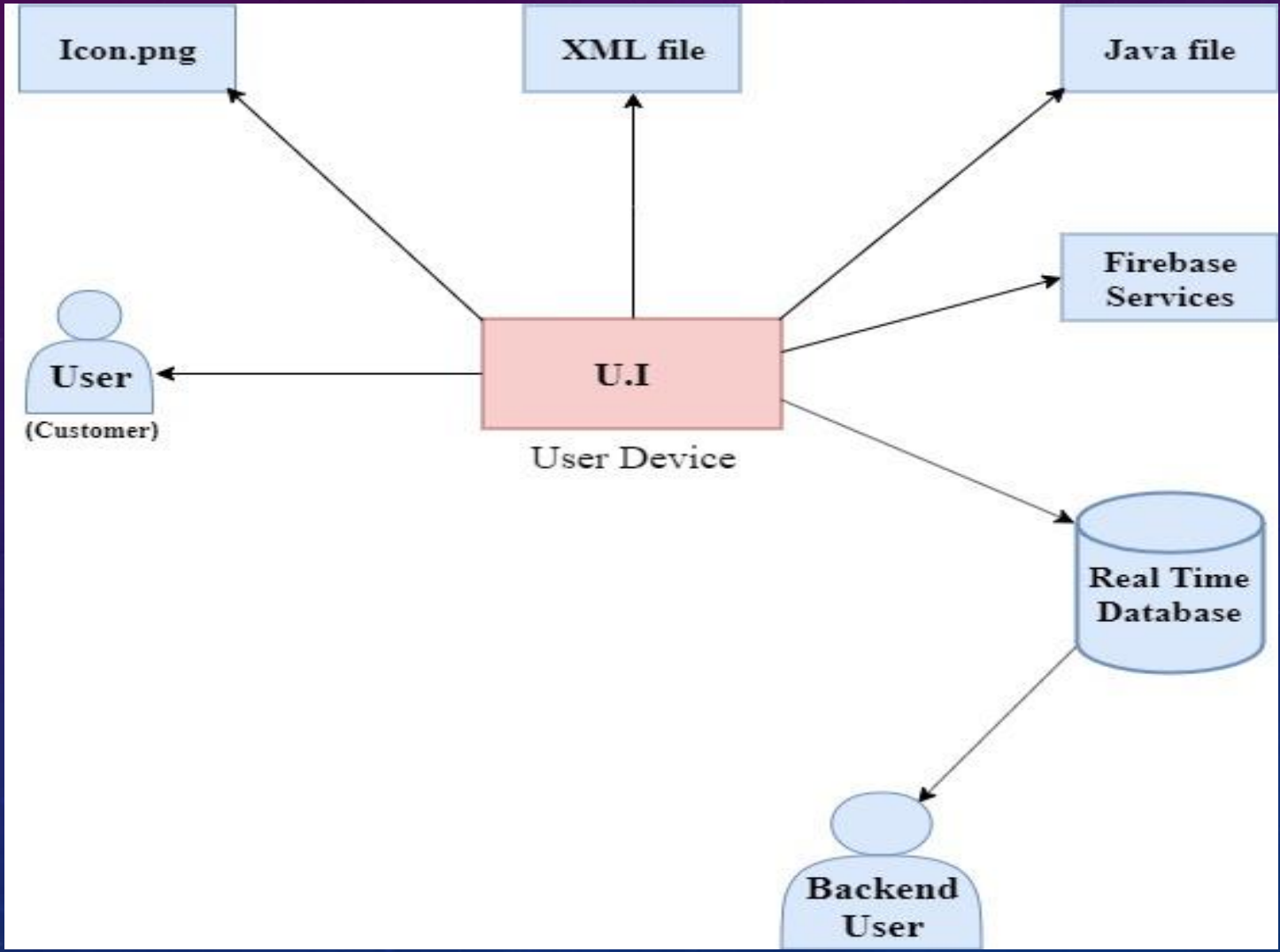
MOTIVATION

- Customer support, feedback collection, ratings, counselling and in person chats are integral parts of any application developed today.
- There is a need for a chat room application which can be integrated with other applications for a one to one chat which can be very flexible in design.

OBJECTIVE

- To develop a light weight chat application that can be integrated with any application.
- The chat should be able to store and retrieve data in real-time from database.
- The design should be very simple and should be understandable by every mobile user.

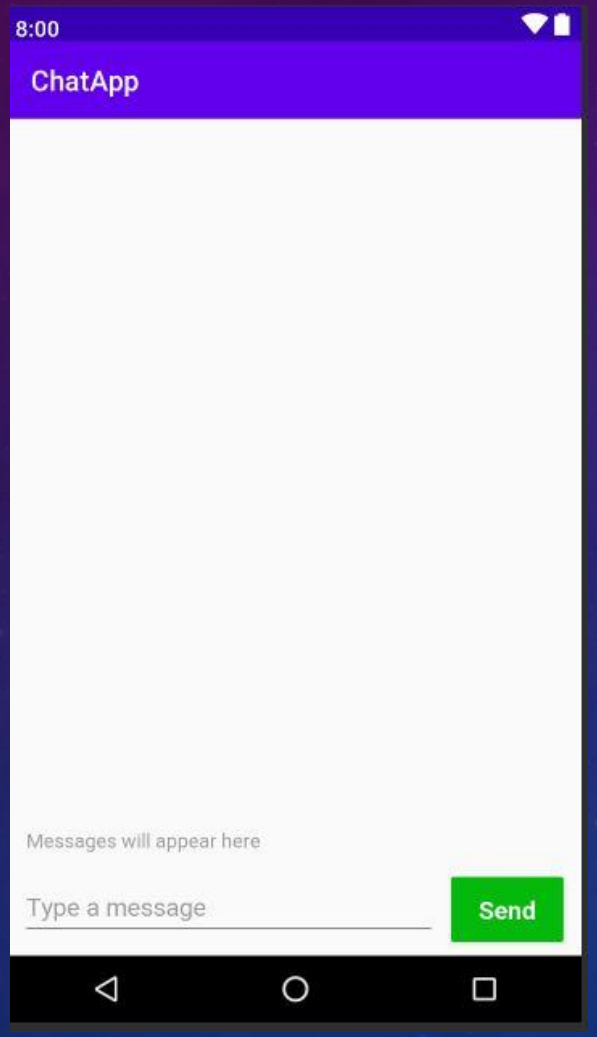
SYSTEM ARCHITECTURE

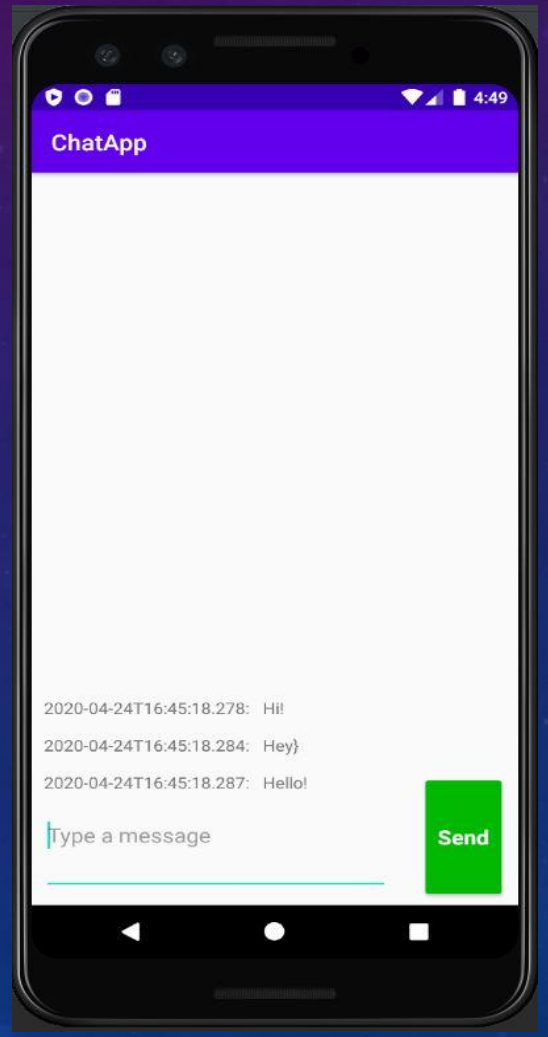


MAJOR BOTTLENECKS FACED

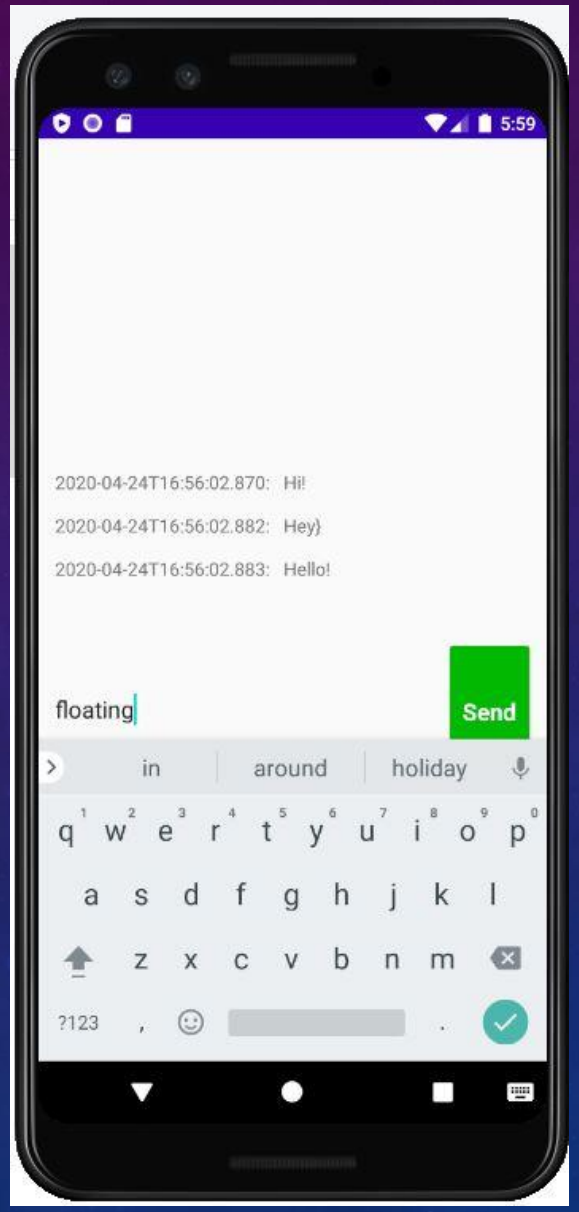
- **Sorting the messages**: By default firebase was saving messages according to a random key generated, because of this random nature the sorting of messages was no possible. We had to find a way to sort the messages, so we decided to go with appending the system date and time with the messages. But appending system date and time needed splitting the data into two parts and saving each system time as the message ID and the message as the element to the ID
- **Scrolling** : Android did not support scrolling function in text view box, we had to write another code to enable the scrolling function in android.
- **Understanding Database:** The way database was structured along with the functions to be used were a little difficult to understand.

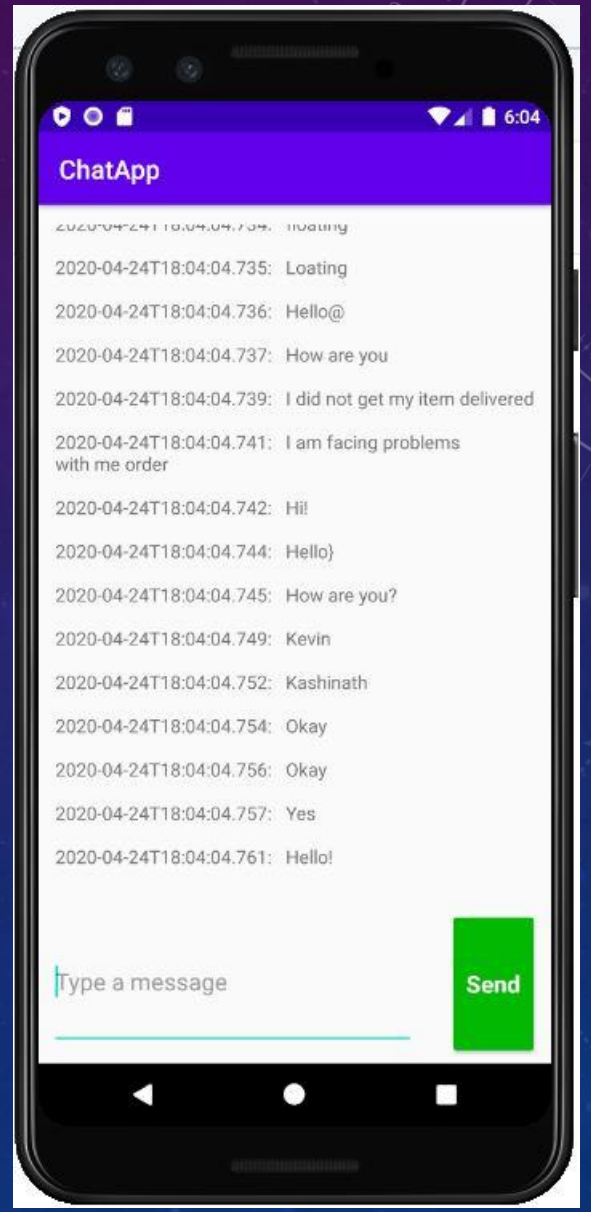
APPLICATION





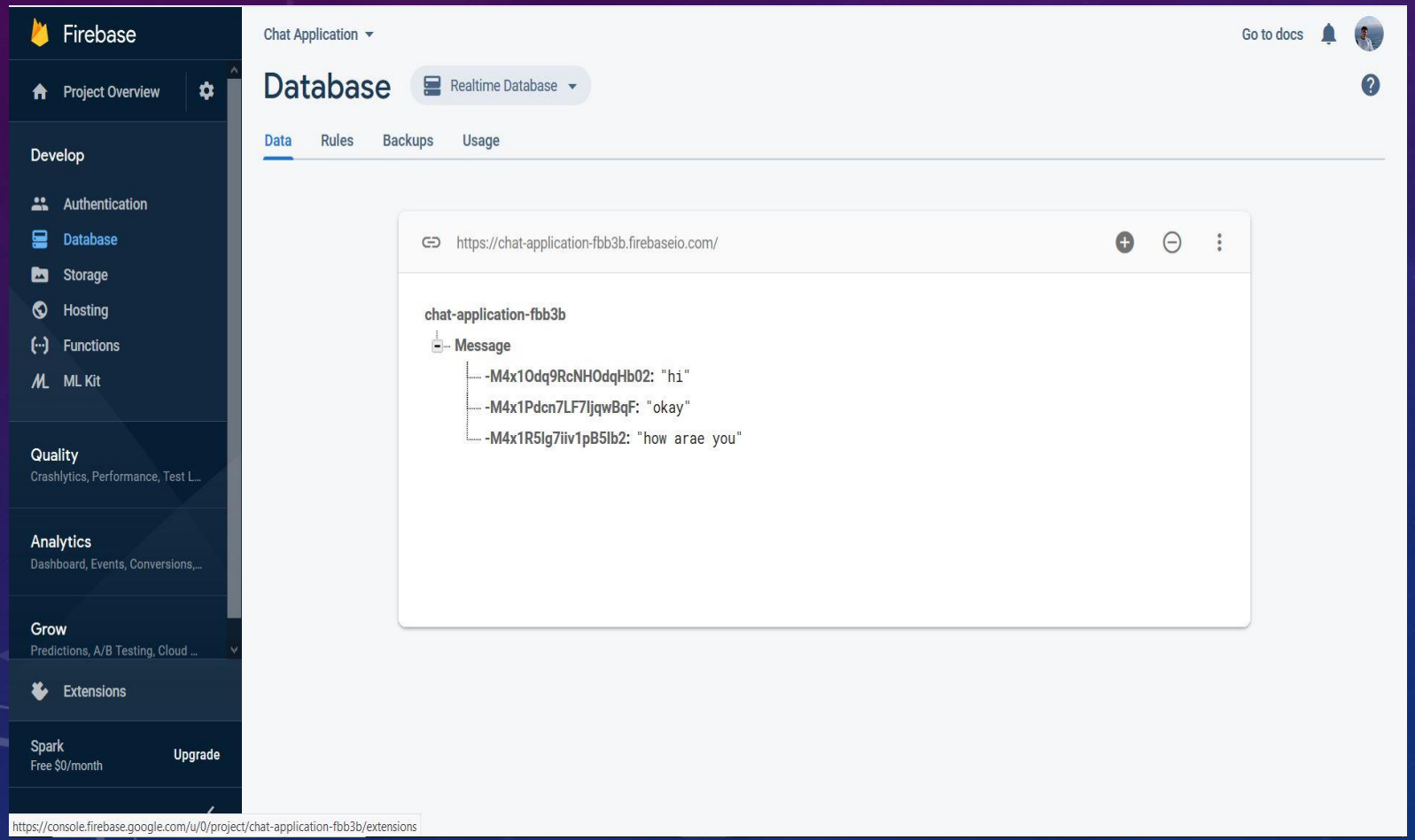
6:04
April 24
FRIDAY, 2020
ChatApp
Maps
Play Store


5:59
2020-04-24T16:56:02.870: Hi!
2020-04-24T16:56:02.882: Hey}
2020-04-24T16:56:02.883: Hello!
floating
Send
in
around
holiday

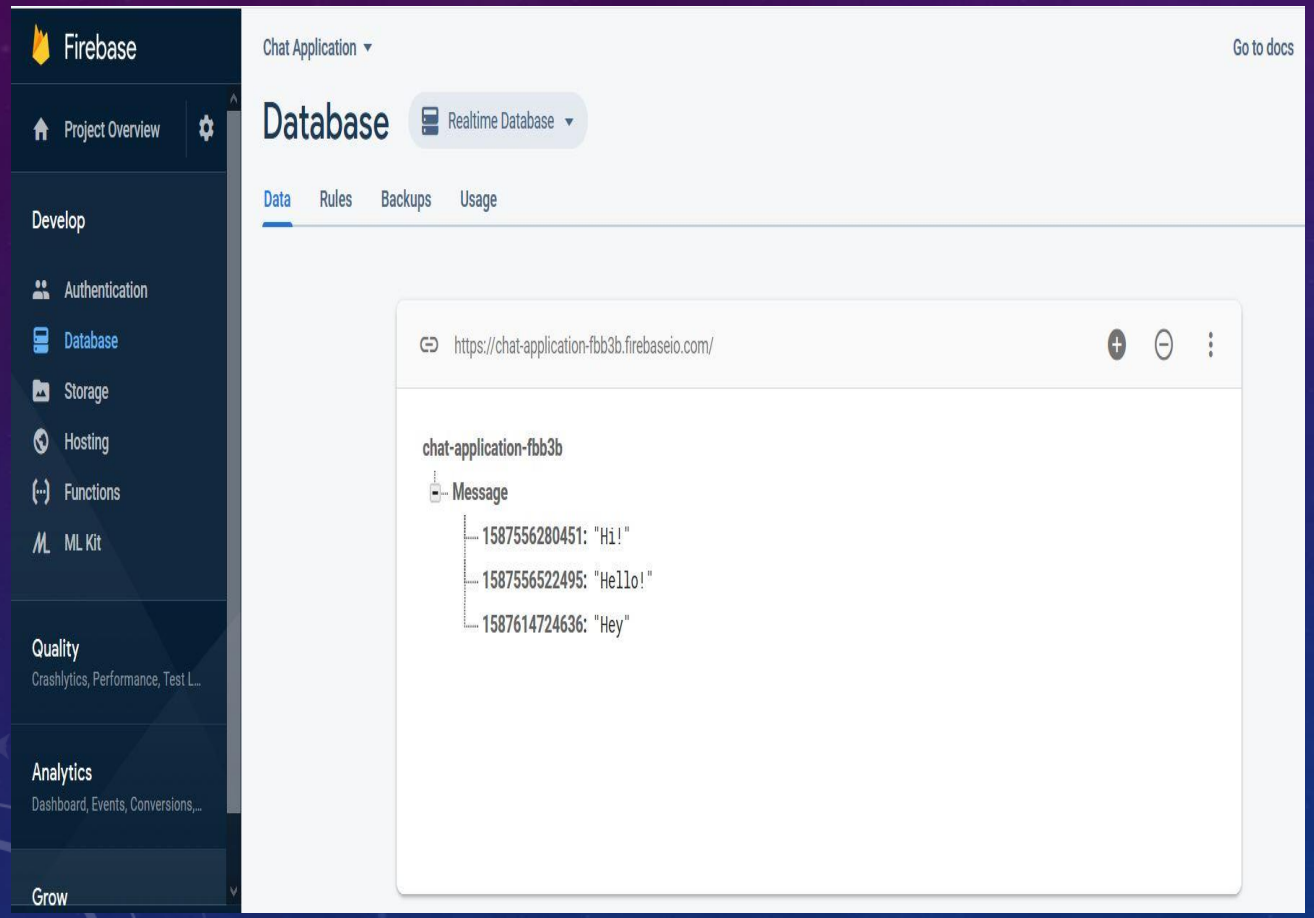

6:04
ChatApp
2020-04-24T18:04:04.735: Loating
2020-04-24T18:04:04.736: Hello@
2020-04-24T18:04:04.737: How are you
2020-04-24T18:04:04.739: I did not get my item delivered
2020-04-24T18:04:04.741: I am facing problems with me order
2020-04-24T18:04:04.742: Hi!
2020-04-24T18:04:04.744: Hello}
2020-04-24T18:04:04.745: How are you?
2020-04-24T18:04:04.749: Kevin
2020-04-24T18:04:04.752: Kashinath
2020-04-24T18:04:04.754: Okay
2020-04-24T18:04:04.756: Okay
2020-04-24T18:04:04.757: Yes
2020-04-24T18:04:04.761: Hello!
Type a message
Send

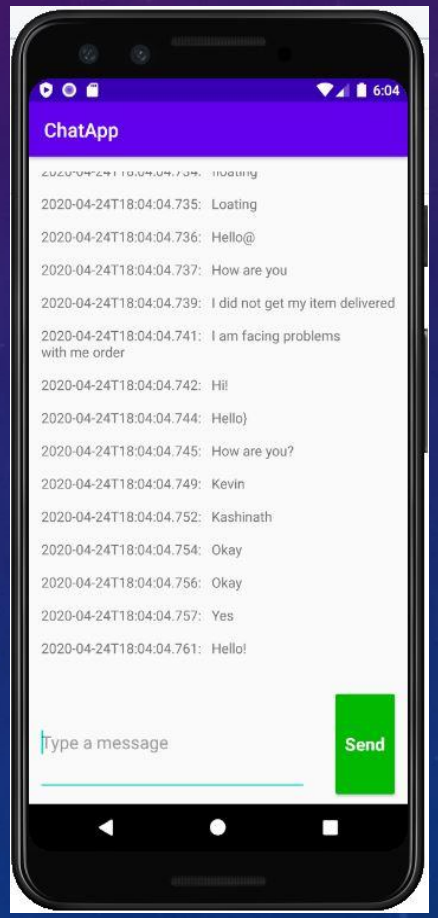
DATABASE OPTIONS

OPTION-1



OPTION-2


Firebase
Project Overview
Develop
Authentication
Database
Storage
Hosting
Functions
ML Kit
Quality
Crashlytics, Performance, Test L...
Analytics
Dashboard, Events, Conversions,...
Grow
Chat Application
Go to docs
Database
Realtime Database
Data
Rules
Backups
Usage
https://chat-application-fbb3b.firebaseio.com/
chat-application-fbb3b
Message
1587556280451: "Hi!"
1587556522495: "Hello!"
1587614724636: "Hey"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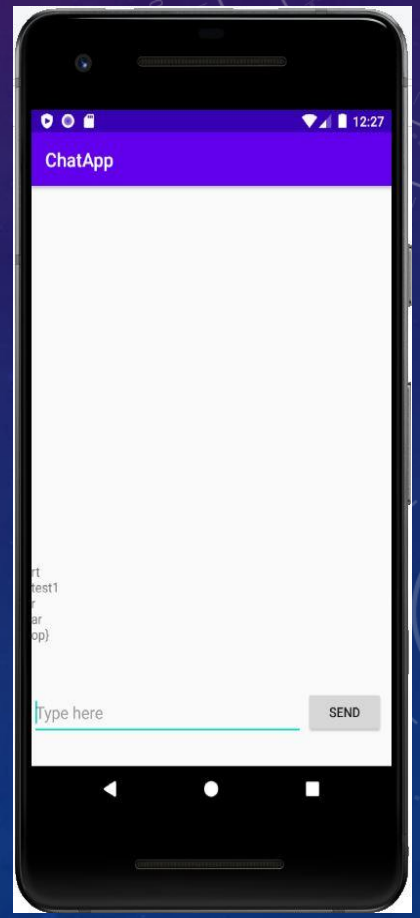
12:27
ChatApp
Type here
SEND

CONCLUSION

Firebase is a step forward in the right direction in the context of application development in the sense that it provides an all round service for developers. Many companies will follow in its footsteps and hence the development of the applications will be much smoother and efficient. As for our application, it has numerous upgrade paths from implementing call functionality or any other enhanced future thanks to the flexible nature of the application and the application will continue to upgrade as long as the technology upgrades. In future we can integrate image and video sharing, voice and video calling etc with this app and help companies choose between services they need.