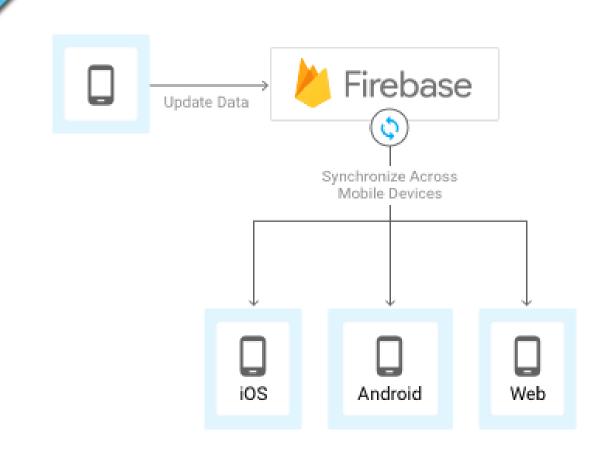


Application Overview

- ► It's always fun to go for a bike ride in groups.
- ► This app encourages your group of friends to go on for longer bike rides.
- ▶ Using the app a user can create a group ride by entering the start and end points of the ride and also the time he is going to start.
- ▶ An email is sent to all the users in the group once a ride is created.
- ▶ During the ride we can access the location of each rider in the app.

CONTD.,

- ▶ App also provides the user statistics like calories burnt, distance to be travelled, average speed and time required for the ride.
- User can also log the ride experience by using the quick post functionality.
- ▶ After the ride all the user statistics are displayed on the leaderboard to get motivated and encouraged to beat the top riders in the leaderboard.



DESIGN ARCHITECTURE

Recommended for:

- Limiting on-device data storage by storing JSON data in the Firebase Realtime Database and files in Firebase Storage.
- Sending notifications with Firebase Cloud Messaging.
- Automated real-time data synchronization across multiple devices.
- Gracefully handling the offline case.
- Authenticating users through a variety of identity providers.
- Rapid development of a backer service.

Not recommended for:

► Apps that need a backend service to modify the synchronized data.

TECHNICAL CHALLENGES

▶ Database access:

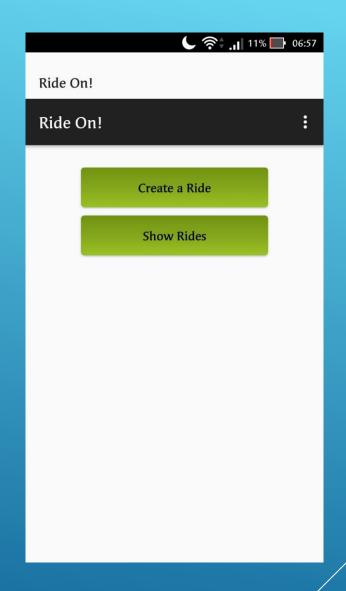
Major problem here is calling the methods on UI thread from AsyncTask Synchronously.

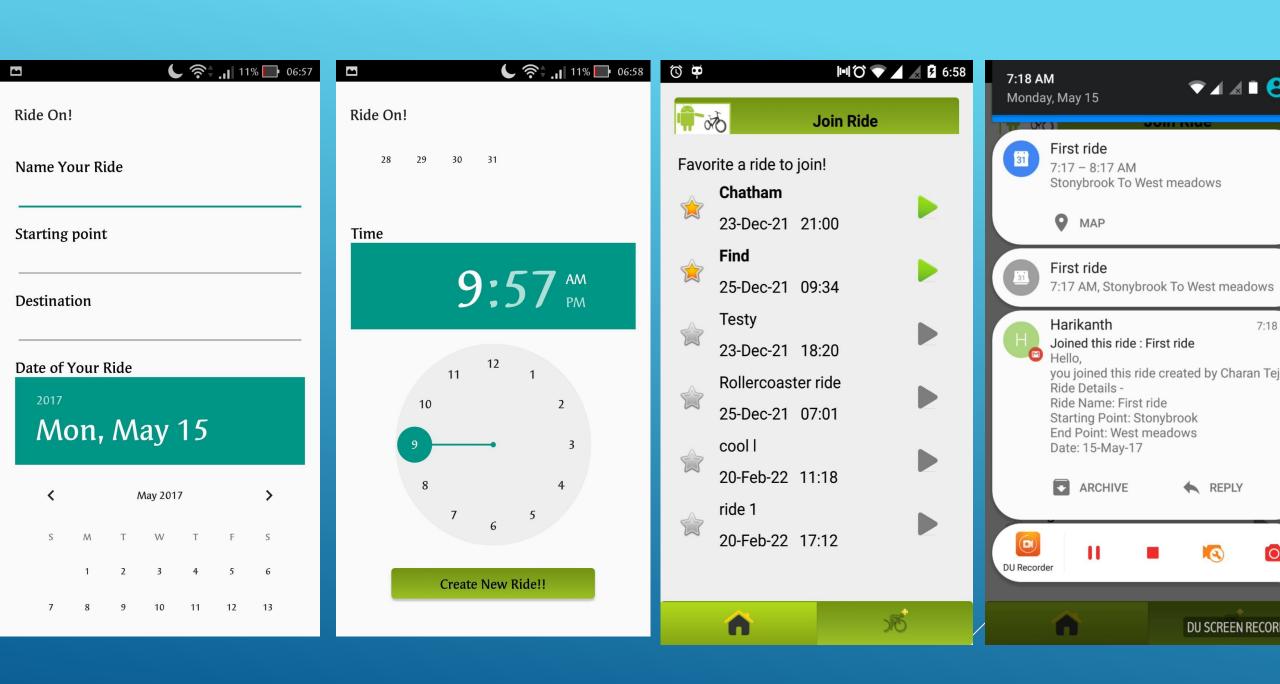
Designing database rules, setting indexes for nodes and avoiding nesting of data are major challenges

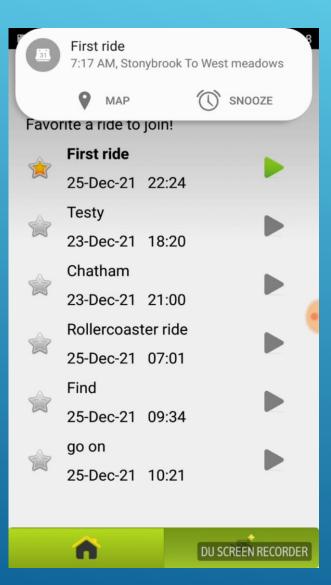
► Location Manager:

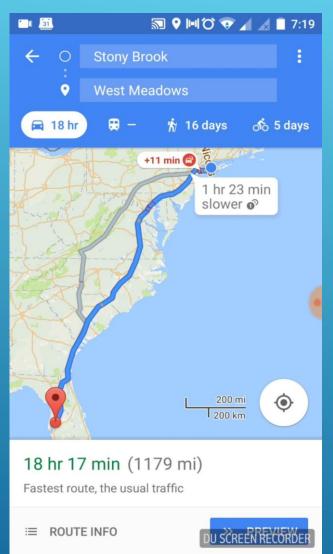
To access location manager in android it is mandatory to check permissions using checkSelfPermission method from android support library which has different compatibility issues for API below 23.

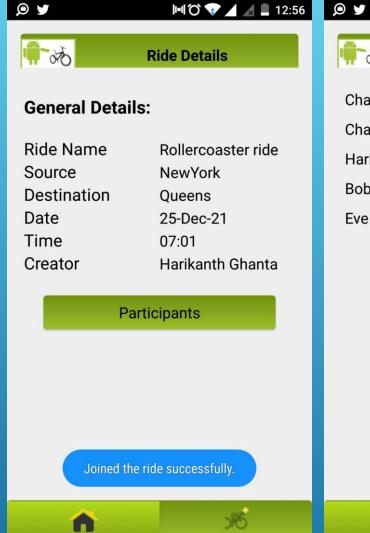


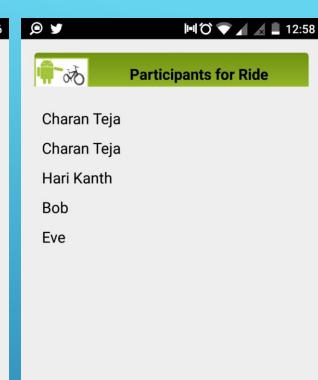












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