FIREBASE IN APP DEVELOPMENT

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ABSTRACT

Firebase is a platform for mobile and web application with tools and infrastructure which allows developers to build high-quality applications. Firebase consists of features that developers can use together to meet their needs. Earlier Firebase was used as a real-time database, which provides developers an API to sync and store data across various clients. Over time, it s product has been expanded to become a full suite for an app development.

Key words: App development; platform; API; Frameworks .

1. INTRODUCTION

Platform has merged into many diverse fields, and is becoming more complex due to the expansion in the field. With changing requirements from customers is making it even more difficult. Old platform approaches are not adequate and able to satisfy the new requirements of the market. As a result, new platform approaches are evolved. Firebase is a powerful API to sync and store data in realtime helping to build realtime apps for the web. Firebase takes care of most of the backend concerns and is dubbed a Backend as a Service (BaaS). Firebase also pushes state to your application utilizing web sockets. This means that an interactive app can be even more interactive as you don't need to refresh the browser to get updates; they are pushed in real-time.

Data is made easier by the backend by visualising it in a no-SQL type of setup. You can easily add nodes to your data set or import an existing JSON file. You can also watch as data is updated, deleted, or added and see the flashes of colours that signify these actions. Add a node and it flashes green. Update some data and the node flashes orange. Completely remove or delete a node and you'll see it flash red before disappearing.

2. FEATURES

[1] **FIREBASE CLOUD MESSAGING**:-It is a cross-platform solution for messages and notifications for Android, iOS, and web applications at no cost.

[2] **FIREBASE ANALYTICS** :- It is a free app measurement solution that provides insight into app usage and user engagement.

[3] **REALTIME DATABASE**:- Firebase provides a realtime database and backend as a service. developers are provided with an API to synchronize application data across clients and stored on Firebase's cloud.

3. LIMITATIONS

[1] Unless the app runs of one centralized database updated by a vast quantity of users, it's a major overkill.

[2] Storage format of Firebase is entirely different to that of SQL, Firebase uses JSON that is why you wouldn't be able to migrate that easily.

[3] Developer don't host the data but the Firebase does. There seems to be a lot of disruption lately Depending on which server you get put on.

4. CONCLUSION

A great set of features are provided by Firebase. The Firebase's database is a blessing for app developers. All the changes made on one instance of the application will be automatically reflected on other instances which means it's a realtime database. New features introduced adds to the already amazing feature set of Firebase, making it capable of handling most of the application database requirements and as well as remote configurations and the cloud notifications.

Firebase provides you with a set of essential features which can be utilized by almost every application. It's recommended to use FCM rather than any other service to notify your users. The syncing and offline capabilities is flawless. Firebase is the service to go for if you don't need to query much.

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