Firebase Workshop

Global Overview of Firebase and Demonstration

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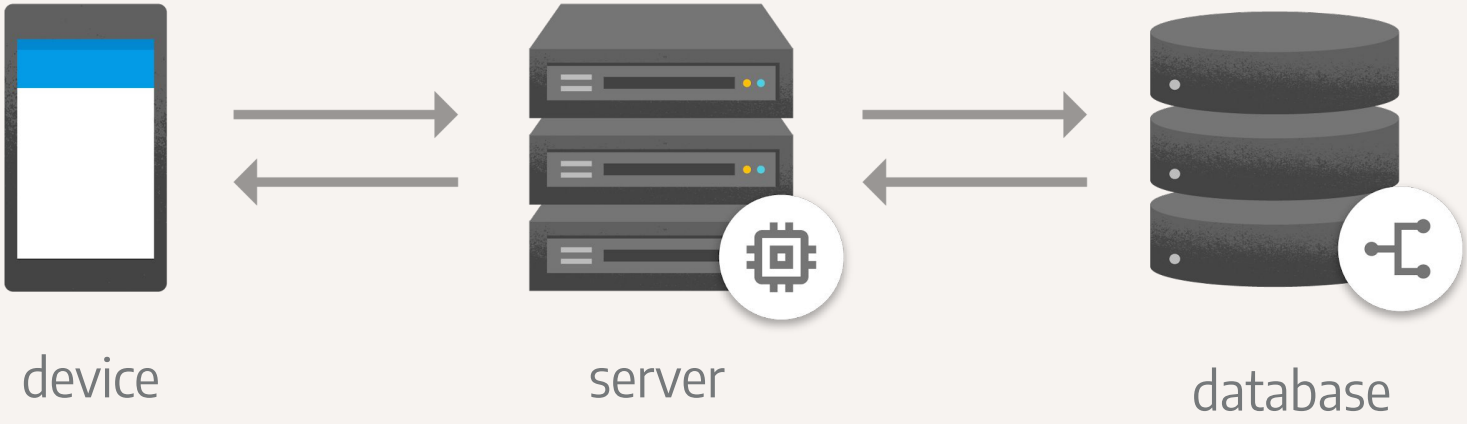
Introduction

- Comprehensive app development platform designed to help developers build, improve, and grow their applications
- Developed by Google
- Allow to build web or mobile based application quickly
- Takes care of the backend infrastructure (BaaS)

Traditional app development



Firebase app development

Overview of Firebase Services

Build

App hosting: deploy app from git commit

App Check: layer of security to protect access to your APIs

Authentication: easy sign-in with any platform

Cloud Storage: quick and easy storage and serving of user-generated content

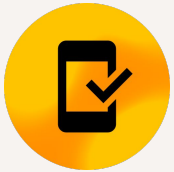
Realtime Database: real time syncing for JSON data

Overview of Firebase Services

Run

App Distribution: give a global view of your beta testing across IOS and Android

Google Analytics: provides free, unlimited reporting on up to 500 distinct events



Test Lab: run tests that simulate actual usage environments with physical and virtual devices provided

When to use it ?

- You want to focus on frontend development
- You have to implement real-time features
- You have to deliver rapidly a working app
- You want a scalable and easy to maintain solution.

When not to use it ?

- You want to develop an IOS application
- You do not want vendor lock-in
- You do not want a NoSQL based database
- You want support for business intelligence tools

Firebase Service: Realtime Database

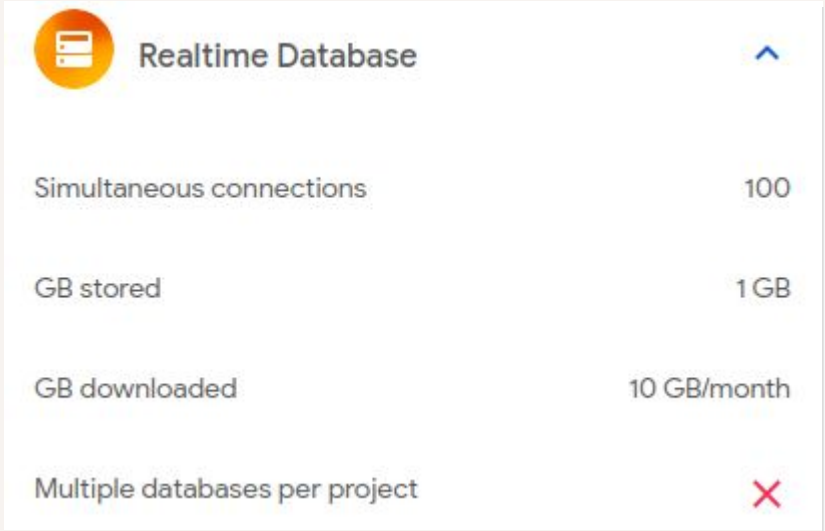
- Store data in a NoSQL Could Database
- Data is synced across all clients in realtime
- Data is available when the app goes offline
- Accessible from client devices
- Scale across multiple databases
- Security

Firebase Service: Authentication

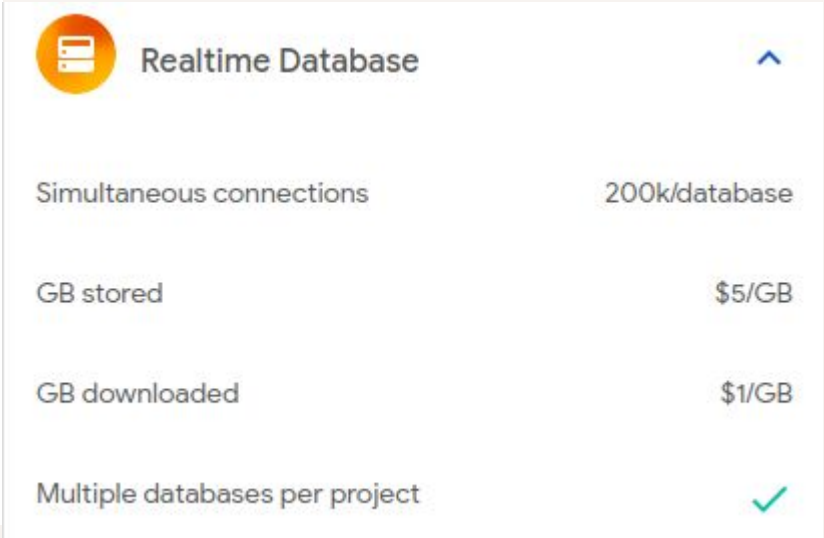
- Allow authentication by password, phone number or popular identity provider like Google, Facebook, etc.
- Provides backend, SDKs and UI libraries to implement it.
- Firebase Authentication comes with an optional upgrade called Identity Platform that extends what's possible in Authentication, but it comes with a different pricing scheme.

Pricing Realtime Database

Free tier :

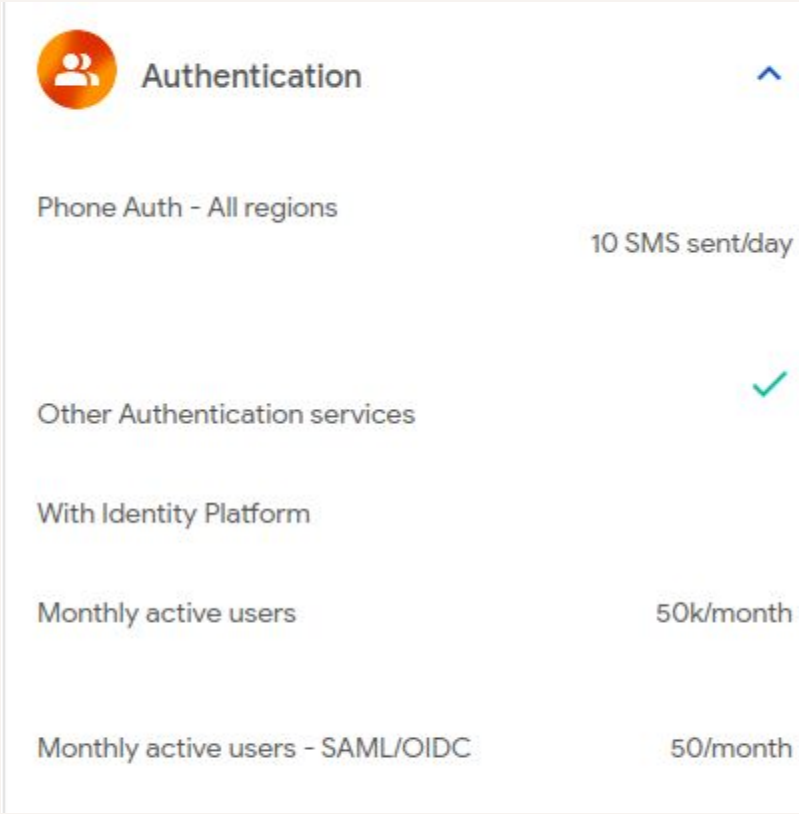


Pay as you go tier :

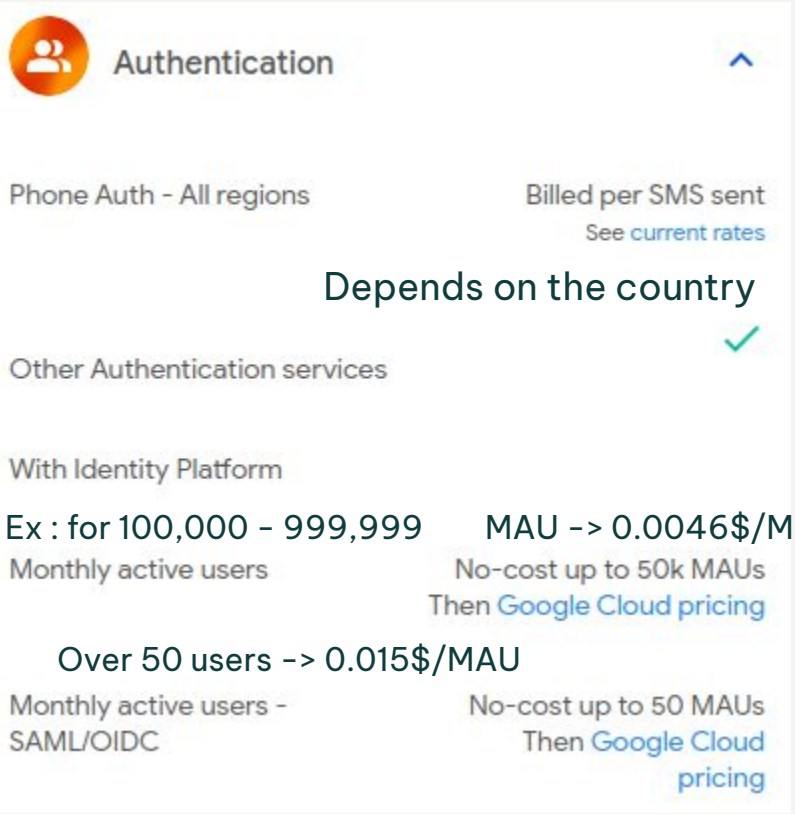


Pricing Authentication

Free tier :



Pay as you go tier :



Demo

Firebase

We made an application using express JS that handles two things :

1 - Authentication using Firebase Authentication and Google's services

2 - POST and GET from the Firebase Realtime Database

References

- Pricing : https://firebase.google.com/pricing and Firebase Blaze Calculator
- Build Services: https://firebase.google.com/products-build
- Run Services: https://firebase.google.com/products-run
- Firebase Realtime Database: https://firebase.google.com/docs/database
- Firebase Realtime Database for web applications: https://firebase.google.com/docs/database/web/start
- Firebase Authentication: https://firebase.google.com/products/auth
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