**Firebase**

**1)Introduction:**

* Firebase is Google's mobile application development platform that helps you build, improve, and grow your app.

**2) Is firebase a database?**

* The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in realtime.

**3) What exactly is firebase?**

* Firebase is a Backend-as-a-Service — BaaS — that started as a YC11 startup and grew up into a next-generation app-development platform on Google Cloud Platform. ... Firebase frees developers to focus crafting fantastic user experiences. You don't need to manage servers. You don't need to write APIs.

**4) Firebase By Products:**

* **Authentication** — user login and identity
* **Realtime Database** — realtime, cloud hosted, NoSQL database
* **Cloud Firestore** — realtime, cloud hosted, NoSQL database
* **Cloud Storage** — massively scalable file storage
* **Cloud Functions** — “serverless”, event driven backend
* **Firebase Hosting** — global web hosting
* **ML Kit** —SDK for common ML tasks

**5)Firebase provides for :**

* Android ,iOS ,Web ,C++ ,unity

**6)Firebase databases:**

Firebase offers two cloud-based, client-accessible database solutions that support realtime data syncing:

* **Cloud Firestore** is Firebase's newest database for mobile app development. It builds on the successes of the Realtime Database with a new, more intuitive data model. Cloud Firestore also features richer, faster queries and scales further than the Realtime Database.
* **Realtime Database** is Firebase's original database. It's an efficient, low-latency solution for mobile apps that require synced states across clients in realtime.

**7)Realtime and offline support**

Both have mobile-first, realtime SDKs and both support local data storage for offline-ready apps.

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| **Realtime Database** | **Cloud Firestore** |
| Offline support for iOS and Android clients. | Offline support for iOS, Android, and web clients. |

Both Realtime Database and Cloud Firestore are NoSQL Databases.

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| **Realtime Database** | **Cloud Firestore** |
| Stores data as one large JSON tree.   * Simple data is very easy to store. * Complex, hierarchical data is harder to organize at scale. | Stores data as collections of documents.   * Simple data is easy to store in documents, which are very similar to JSON. * Complex, hierarchical data is easier to organize at scale, using subcollections within documents. * Requires less denormalization and data flattening. |

**8)Difference between Realtime database & Cloud Firebase**

