

Design: Database for Rio Blogger

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For my database design, I have decided to use a Firestore database to hold the application's data that is inserted into the system by users. Firestore is a serverless NoSQL document database. Firestore allows developers to create rich applications using a fully managed, scalable, and serverless document database.

Reason I chose Firestore database:

- Firestore database exists on the google cloud.
- Firestore database architecture works well with angular
- The serverless document database effortlessly scales to meet any demand, with no maintenance.
- Developers can accelerate development of mobile, web, and IoT apps with direct connectivity to the database.
- The NoSQL database has a built-in live synchronization and offline mode that makes it easy to develop real-time applications for beginners or experts.
- FireStore has fully customizable security and data validation rules to ensure the data is always protected.
- Firestore Very easy to apply to Ionic apps using Typescript.
- After the class is over I would like to upgrade my database. Prices are reasonable @ .18/GB.

"Firebase is a real-time NoSQL cloud database (but also cloud storage and messaging service and authentication service) that helps you build apps without building the backend. You can save and retrieve JSON objects, build user authentication, and get data updates in real-time across connected devices in milliseconds: data remains available if your app goes offline, providing a great user experience regardless of network connectivity.

Angular + Firebase + Typescript Step by step tutorial (2017) [Jonny Fox - Medium.com](https://medium.com/@jonnyfox/angular-firebase-typescript-step-by-step-tutorial-2017-1a1a1a1a1a1a)

Data structure

At its core, my final project is a CRUD application running on a Firestore NoSQL database with Angular as my Javascript compiler framework. My mindset was to keep the application simple. The database would follow the same concept. Within my firestore services file, I will make a collection call to “BlogEntries”.

```
collectionName = 'BlogEntries';
```

Since I will be using typescript for functionality, I will make an interface call in typescript called “blogData” to the angular/firestore service which will then store the information to my “BlogEntries” database in the following format.

```
interface blogData {  
  Name: string;  
  Price: number;  
  Description: string
```

Firestore View

Within the firestore collection, the data will be stored in the following format:

The screenshot displays the Firestore console interface. On the left, a sidebar shows the project 'rio-blogger' with a 'BlogEntries' collection highlighted. An annotation points to this collection, stating: 'Collection within the firestore services folder'. The main panel shows the 'BlogEntries' collection with three documents. The first document is selected, showing its details. Annotations explain the document structure: 'Within "BlogEntries" Each entry stored by a unique ID' points to the document ID 'HZFCTIxU1XHMztY2PN1w'. Another annotation, 'Each entry Will have: Description: String, Name: String, Price: Number(int)', points to the document's fields. The document content is as follows:

Field	Value
Description	"Lagoa (English: Lagoon) is an affluent residential neighborhood in Rio de Janeiro, Brazil located around the Rodrigo de Freitas Lagoon. It borders the neighborhoods of Ipanema, Leblon, Copacabana, Gávea, Jardim Botânico, and Humaitá. It is the third most expensive neighborhood to live in South America. It is also one of the few places in Rio de Janeiro without a favela (slum). The population is of about 18,200 inhabitants. Around the Rodrigo de Freitas Lagoon there is a 7.5 km long cicleway and many parks."
Name	"Lagoa, Rio de Janeiro"
Price	"10"