Database Design

The database should be designed in such a way that it should be easy to access and manipulate. Database definition and database manipulation operations should be performed accordingly to add, delete, and update values. In this project, I have used a Firebase database which is an open-source database, easy to find in Google. In Firebase, we use a realtime database. We add a JSON file in our android apps which we get from our Firebase to create the database. The Firebase Realtime Database is a cloud-hosted NoSQL database that lets us store and sync data between our users in realtime. The Firebase database server could be registered by providing our Gmail account. Here we use five tables for our databases. They are,

- Owner Database
- Tenants Database
- Notice Database
- Requests Database
- Message Database

The information to be transferred or fetched could be in JSON formats. In this project BashaBari, when we need any things to show like messages, notices, requests, the information is sent via internet services in JSON format in our recycler view format and displayed to users from Firebase realtime database.
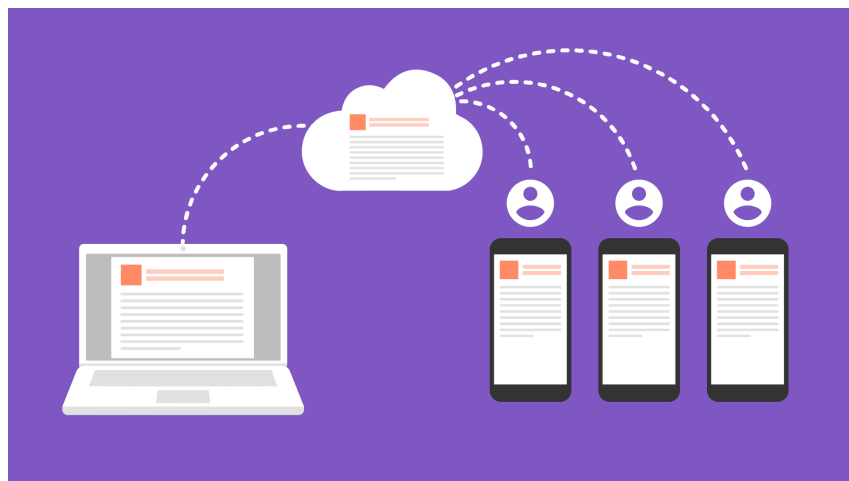

Figure: *Realtime Firebase Database*

Entity Relationship Diagram

There are five tables involved for this project under one database (BashaBari), which was created in Firebase. As the five tables as per the design, the entity-relationship diagram is as follows:
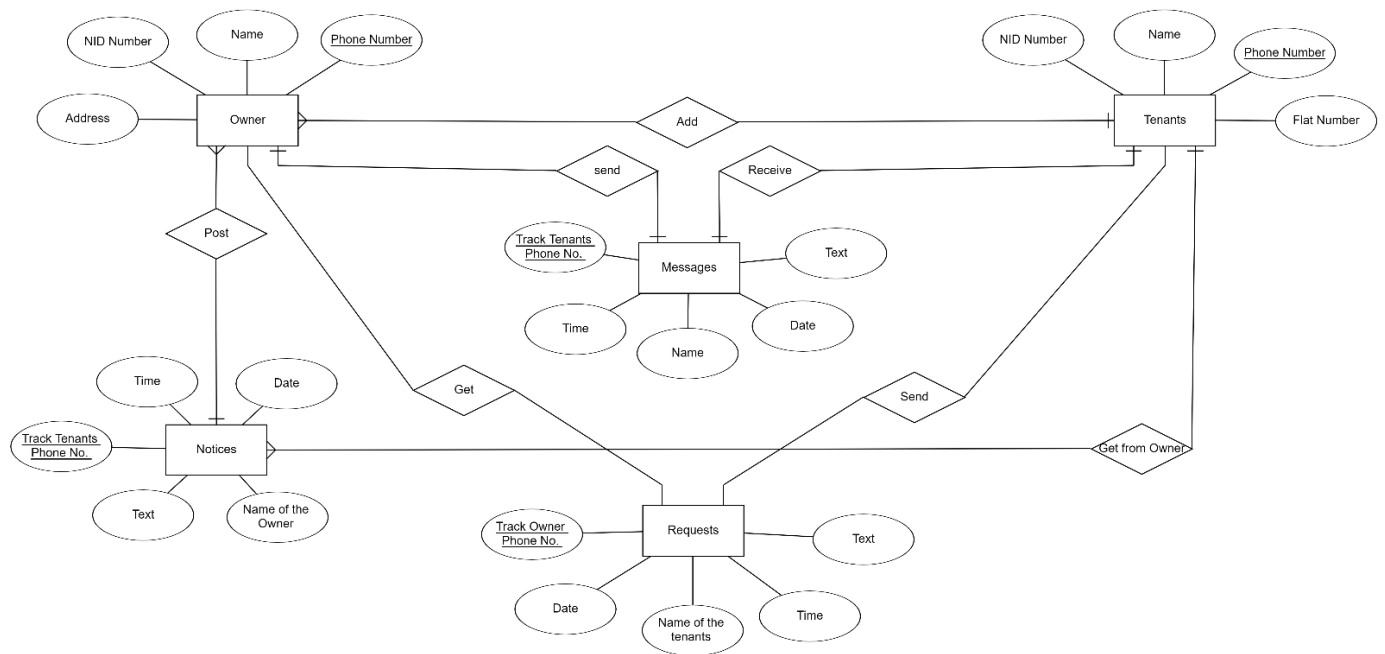

Figure: *ER Diagram*