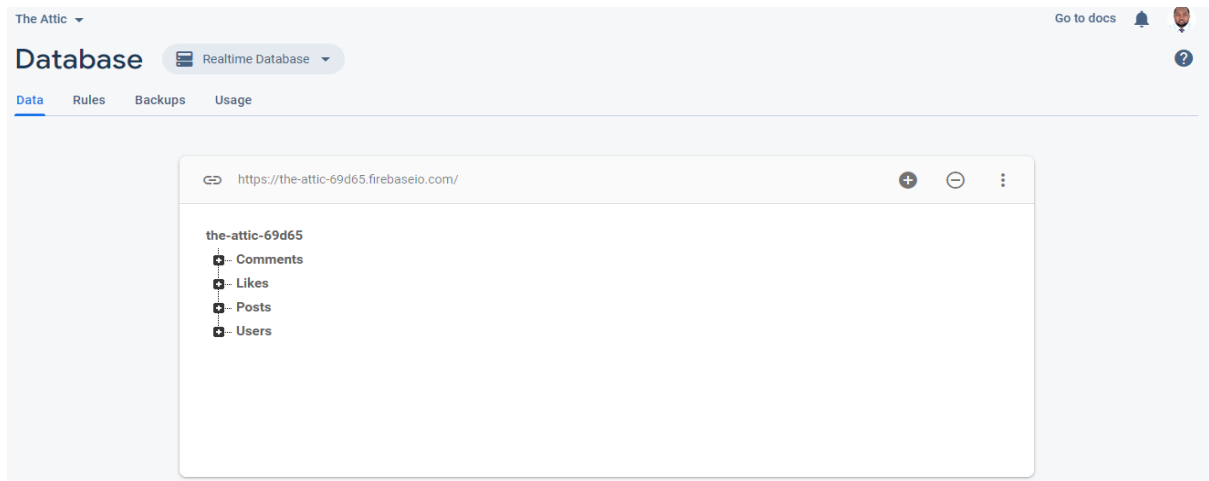**The Back-End**

This is how my back end for the realtime database looks like

Remember I mentioned that we are creating database references in our database. All the database references were created in the front end code.I will dissect one reference to show how we created it.
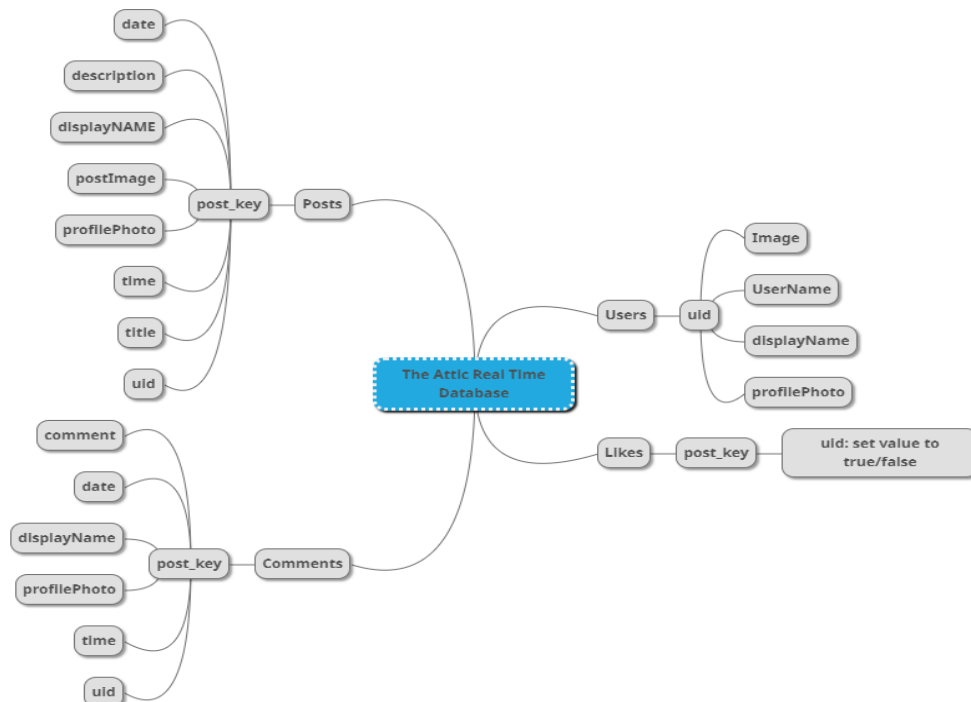
Currently I have four database references, Users(for saving information we got from the registration screen and profile screen), Posts(for saving post details), Like(for saving likes), Comments(for saving user comments on specific posts).

How did you save user details in the "Users" node using the user ID's?

Great, I will start by showing you the structure of my database

Below is a mind map of how envisioned the database to look like

The database itself

https://the-attic-69d65.firebaseio.com/

the-attic-69d65
  Comments
    -MAWNXz5-_ORO5LDsTdL
      -MAXQx6akF7iAxDBztKj
        comment: "this is great
        date: "23-06-2020
        displayName: "tester'
        profilePhoto: "https://firebasestorage.googleapis.com/v0/b/the
        time: "21:27'
        uid: "okAz7zAQgmfJNOQotb7U8aIreGE
      -MAXaQvb-5iaQBDU7cgW
      -MAXaWwvdb6_LL__EM3G
      -MAXaZZqP7D5KHDS6t5R
      -MAXa_QNMp-anZSZgyBF
    -MAWOnWD7y_QVOOFA45W
    -MAXhvzJmMzYK4ODy66T
  Likes
    -MAWNXz5-_ORO5LDsTdL
      40SRg0LOWpfJ24oFrthI8pPFCyV2: true
      DCRPBLeL45UNYqrJte0t9taB1QX2: true
    -MAWOnWD7y_QVOOFA45W

  Posts
    -MAWNXz5-_ORO5LDsTdL
      date: "23-06-2020
      desc: "kali sana
      displayName: "stan'
      postImage: "https://firebasestorage.googleapis.com/v0/b/the
      profilePhoto: "https://firebasestorage.googleapis.com/v0/b/the
      time: "16:33'
      title: "cafe.'
      uid: "40SRg0LOWpfJ24oFrthI8pPFCy\
    -MAWOnWD7y_QVOOFA45W
    -MAXhvzJmMzYK4ODy66T
  Users
    2LktIjU8PqbIDXrdDn40r0XcLz72
    40SRg0LOWpfJ24oFrthI8pPFCyV2
      Image: "Default
      Username: "testing @gmail.cor
      displayName: "stan'
      profilePhoto: "https://firebasestorage.googleapis.com/v0/b/the
    CwC27iBBJmWjRfBt2iE96bFP7Yh2
    DCRPBLeL45UNYqrJte0t9taB1QX2
    okAz7zAQgmfJNOQotb7U8aIreGE2
    v9D9O6le2FYDye45J34SWbEms6l1

Creating Users

This is what I did in register activity:

Let's dissect users and see how this node was created in the Register Activity

1. I declared a reference for saving users in my Register Activity

```
// A Database reference is a node in our database, e.g the node users to store user
details
private DatabaseReference userDetailsReference;
```

2. I also declared an instance of my database(you don't have to worry about how the connection was created, remember you created a firebase project and added your app)

```
//Declare an instance of FireBase Database
private FirebaseDatabase database;
```

3. I then initialized my database instance, then created a database reference called **"Users"** in my database.

```
// Initialize an Instance of Firebase Database by calling the getInstance() method
database = FirebaseDatabase.getInstance();
//Initialize an Instance of Firebase Database reference by
// calling the database instance, getting a reference  using the get reference() method on
the database,
// and creating a new child node, in our case "Users" where we will store details of
registered users
userDetailsReference = database.getReference().child("Users");
```

4. Got the user ID by using FIREBASE authentication instance, and the getCurrentUser() method, then got the User id by using the method getUid(). Then I saved this in a string variable, I named as user_id.

```
// Create a string variable to get the  user id of currently  registered user
String user_id = mAuth.getCurrentUser().getUid();
//create a child node database reference to attach the user_id to the users node
```

5. I then create a database reference variable, current_user_db and initialized it to create a new node named using the user_id I got in step 4.

```
//create a child node database reference to attach the user_id to the users node
DatabaseReference current_user_db = userDetailsReference.child(user_id);
```

6. To insert data in the user id node I called the method setValue()

```
// set the Username and Image on the users' unique path (current_users_db).
current_user_db.child("Username").setValue(username);
current_user_db.child("Image").setValue("Default");
```

7. To save the profile image and display name , I did that in the profile activity.