

Setup and Initialization

Install the required firebase packages:

```
npm install @angular/fire firebase --save
```

```
npm install angularfire2
```

```
npm install -g firebase-tools
```

```
npm install rxjs-compat (To let map operator work)
```

Connect Database with Project

```
src/environments/environment/environment.ts

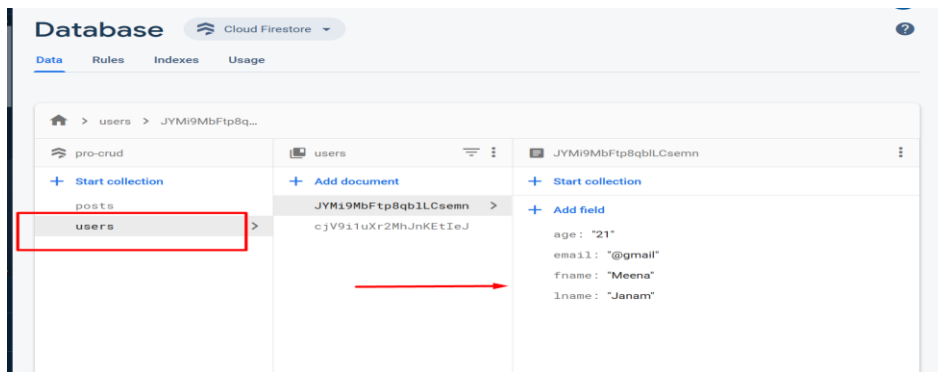
app.component.html TS environment.ts X # app.component.css TS app.component.ts

st-crud > src > environments > TS environment.ts > [?] environment > 🔑 firebase
1 // This file can be replaced during build by using the `fileReplacements`
2 // `ng build --prod` replaces `environment.ts` with `environment.prod.ts`.
3 // The list of file replacements can be found in `angular.json`.
4
5 export const environment = {
6   production: false,
7   firebase: {
8     apiKey: "AIzaSyCC2J0lCrMXIa1kR7Cl7Pwn1hQscGunMVk",
9     authDomain: "pro-crud.firebaseio.com",
10    databaseURL: "https://pro-crud.firebaseio.com",
11    projectId: "pro-crud",
12    storageBucket: "pro-crud.appspot.com",
13    messagingSenderId: "847256863604",
14    appId: "1:847256863604:web:274368c2e38d4007d3a221",
15    measurementId: "G-3EEQQHZFKW"
16  },
17 };
18
```

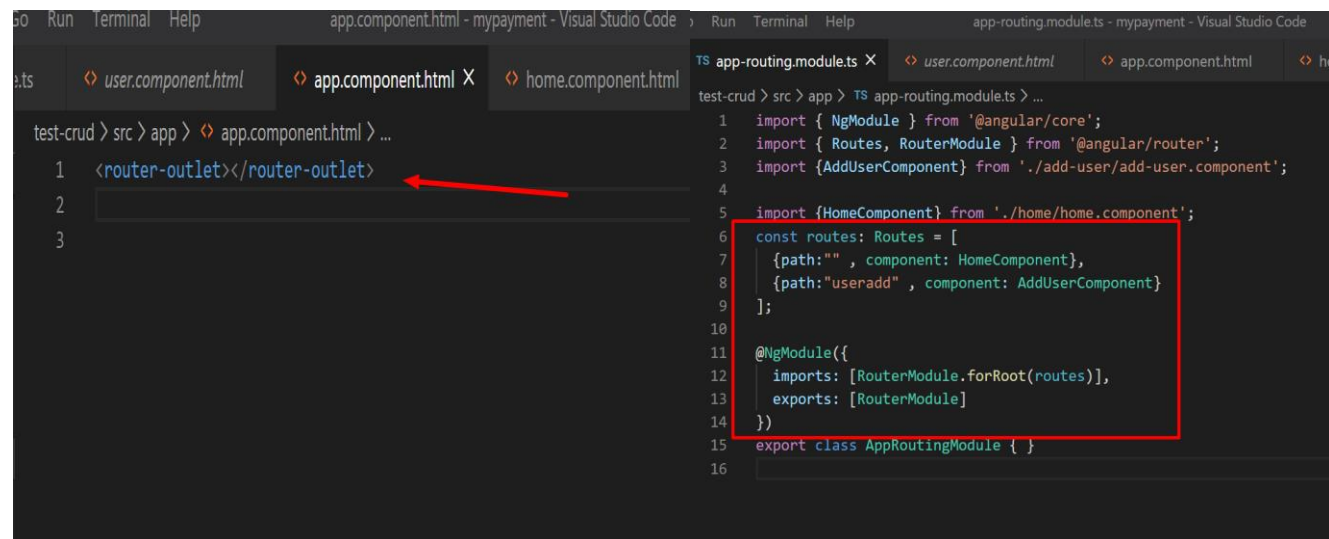
```
app.component.html TS app.module.ts X # app.component.css TS app.component.ts

st-crud > src > app > TS app.module.ts > 📁 AppModule
5 import { AppComponent } from './app.component';
6
7 import { AngularFireModule } from 'angularfire2';
8 import { AngularFirestoreModule } from 'angularfire2/firestore';
9 import { environment } from 'src/environments/environment';
10 import { from } from 'rxjs';
11
12 @NgModule({
13   declarations: [
14     AppComponent
15   ],
16   imports: [
17     BrowserModule,
18     AppRoutingModule,
19     AngularFireModule.initializeApp(environment.firebase),
20     AngularFirestoreModule,
21   ],
22   providers: [],
23   bootstrap: [AppComponent]
24 })
25 export class AppModule { }
26
```

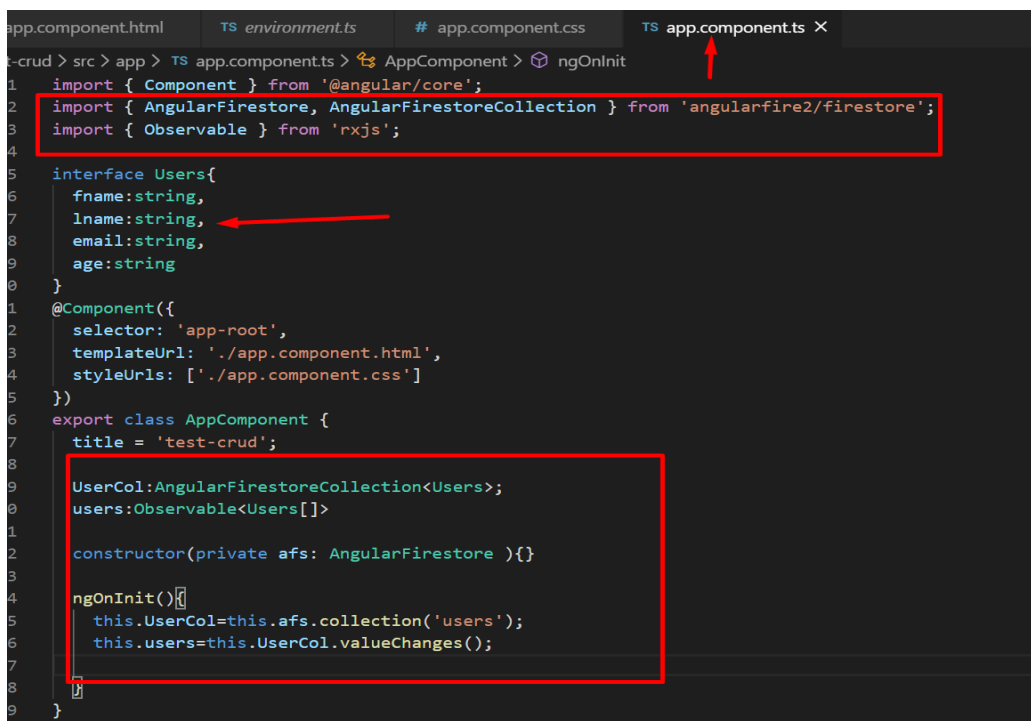
Database in Firebase:



Configure Route:



Performing **Read** Operation from Database: **CRUD**



```
app.component.html X TS environment.ts # app.component.css TS app.component.ts
test-crud > src > app > app.component.html > div
1 <h2>AsalamWalekum</h2>
2
3 <div>
4   <ul *ngFor='let u of users |async'>
5     <li>Name: {{u.fname}}-{{u.lname}}</li>
6     <li>Email: {{u.fname | lowercase}}.{{u.lname | lowercase}}@gmail.com</li>
7     <li>Age: {{u.age}} Years Old</li>
8   </ul>
9 </div>
```

Performing **Create** Operation: **C** **R** **U** **D**

```
app.component.html X TS app.component.ts
test-crud > src > app > app.component.html > ...
1 <h2>AsalamWalekum</h2>
2
3 <div>
4   <ul *ngFor='let u of users |async'>
5     <li>Name: {{u.fname}}-{{u.lname}}</li>
6     <li>Email: {{u.email}}</li>
7     <li>Age: {{u.age}} Years Old</li>
8   </ul>
9 </div>
10
11
12 <input type="text" name="fname" [(ngModel)]='fname' placeholder="Firstname">
13 <input type="text" name="lname" [(ngModel)]='lname' placeholder="Lastname">
14 <input type="text" name="age" [(ngModel)]='age' placeholder="Age">
15 <button (click)="addUser()">Add User</button>
16
```

```
component.html TS app.component.ts •
src > src > app > TS app.component.ts > AppComponent > addUser
templateUrl: './app.component.html',
styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'test-crud';
  fname='';
  lname='';
  age='';

  UserCol:AngularFirestoreCollection<Users>;
  users:Observable<Users[]>

  constructor(private afs: AngularFireStore){}

  ngOnInit(){
    this.UserCol=this.afs.collection('users');
    this.users=this.UserCol.valueChanges();
  }

  addUser(){
    console.log('Hi')
    this.afs.collection('users').add({'fname':this.fname,'lname':this.lname,'email':this.lname+"."+this.fname+"@gmail.com",'age':this.age});
    this.fname='';
    this.lname='';
    this.age='';
  }
}
```

Performing **Update** Operation from Database: **CRUD**

```
<> home.component.html X ←
src > app > home > <> home.component.html > div.list-group.users-list > div.list-group-item.list-group-item-action.flex-column
17   <div class="col col-md-8 text-col">
18     <div class="row">
19       <h5 class="mb-1"> Name: {{u.data.fname}}-{{u.data.lname}}</h5>
20     </div> <div class="row">
21       <h6 class="mb-">Email: {{u.data.email}}</h6>
22     </div> <div class="row">
23       <h6 class="mb-1" >Age: {{u.data.age}} Years Old</h6>
24     </div>
25   </div>
26   <div class="col col-md-2 actions-col">
27     <button (click)='getId(u)' class="btn btn-primary">View Details</button>
28     <button (click)='editId(u)' class="btn btn-outline-success action">Edit Details</button>
29     <button (click)='delete(u)' class="btn btn-danger">Delete</button>
30   </div>
31 </div>
32 </>
33
34
35
36 <div class="page-footer font-small blue">
37
```

home.component.ts X

```

c > app > home > TS home.component.ts > ...
44      return { id, data };
45    })
46  })
47  }
48
49  getId(UserId){
50    this.UserDoc=this.afs.doc('users/'+UserId);
51    this.user=this.UserDoc.valueChanges();
52
53    this.router.navigate(['../user-details'],{queryParams:{id:btoa(JSON.stringify(UserId))}}
54  );
55  }
56  }
57
58  editId(u){
59    this.router.navigate(['../edit'],{queryParams:{data:btoa(JSON.stringify(u))}}
60  );

```

TS edit-user.component.ts

```

src > app > edit-user > TS edit-user.component.ts > EditUserComponent > updateUse
27  //
28  ngOnInit(): void {
29    this.route.queryParams.subscribe((param)=>{
30      this.udata=JSON.parse(atob(param.data));
31      this.lname=this.udata.data.fname;
32      this.fname=this.udata.data.lname;
33      this.age=this.udata.data.age;
34      this.pic=this.udata.data.pic;
35      this.id=this.udata.id;
36      console.log(this.udata);
37      console.log(typeof(this.udata));
38    });
39    console.log(this.udata);
40  }
41  changePic(url){
42    this.pic=url;
43  }
44  updateUser(){
45    this.afs.doc('users/'+this.id).update({
46      pic:this.pic,
47      fname:this.fname,
48      lname:this.lname,
49      email:this.fname+'4'+this.lname+'@gmail.com',
50      age:this.age});
51
52    alert('Update Successfull !!');
53    this.fname='';
54    this.lname='';
55    this.age='';
56  }

```

Performing **Delete** Operation from Database: **CRUD**

```
home.component.html X
src > app > home > home.component.html > div.list-group.users-list > div.list-group-item.list-group-item-action.flex-column.align-items-start > d
26   <div class="col col-md-2 actions-col">
27     <button (click)='getId(u)' class="btn btn-primary">View Details</button>
28     <button (click)='editId(u)' class="btn btn-outline-success action">Edit Details</button>
29     <button (click)='delete(u)' class="btn btn-danger">Delete</button>
30   </div>
31 </div>
32 </div>
33 </div>
34
```

```
TS home.component.ts X
src > app > home > TS home.component.ts > ...
52
53   this.router.navigate(['./user-details'],{que
54   | });
55
56 }
57
58 editId(u){
59   this.router.navigate(['./edit'],{queryParams
60   });
61 }
62 delete(u){
63   console.log('Delte start');
64   this.afs.doc('users/'+u.id).delete();
65   console.log('Delte end');
66 }
67
68 }
69
```

Firestore Initialization and deployment

Install the required bootstrap packages for CSS to make its look good:

```
npm install --save bootstrap
```

@import "~bootstrap/dist/css/bootstrap.css" (in the global style.css file)

```
npm i -g firebase-tools
```

Google fire base cli. **firebase login firebase list (to select project)**

firebase init

Note: change the path for project to **dist/name_of_your_project**

Build the project with **ng build --prod**

firebase deploy

Gr8 it's Done ;)