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DEPARTMENT OF MASTER OF COMPUTER APPLICATION

CLASS: F.Y. MCA SEM: II

COURSE CODE: MC509 SUBJECT NAME: MOBILE PROGRAMMING LAB ROLL

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BATCH: B

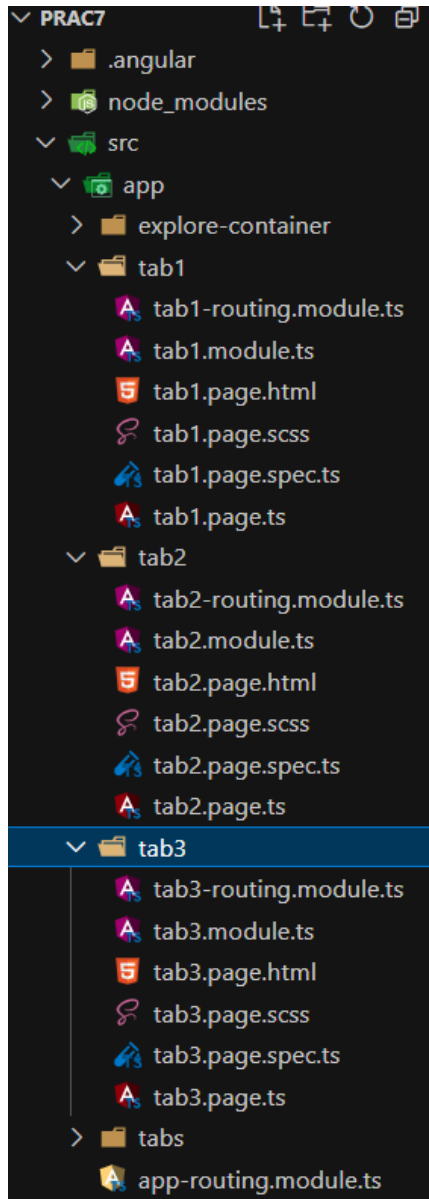
NAME: Durgesh Dilip Mandge

EXPERIMENT NO: 07

EXPERIMENT TITLE: To post information to the json file and to fetch and display that information using HTTP.

Tools Required: Ionic, VSCode

Files which are used for the application (.html, .scss, .ts etc) : .js



Code :

```
<ion-header>
  <ion-toolbar>
    <ion-title>
      Users
    </ion-title>
  </ion-toolbar>
</ion-header>
```

```
<ion-content>
  <div class="user-list">
    <ion-list>
      <ion-item *ngFor="let user of users">
        <ion-avatar slot="start">
          <img [src]="user.avatar">
        </ion-avatar>
        <ion-label>
          <h2>{{ user.first_name }} {{ user.last_name }}</h2>
          <p>{{ user.email }}</p>
        </ion-label>
        <ion-button color="danger" slot="end"
(click)="removeUser(user)">Remove</ion-button>
      </ion-item>
    </ion-list>
  </div>
</ion-content>
```

```
<ion-header>
  <ion-toolbar>
    <ion-title>Add User</ion-title>
  </ion-toolbar>
</ion-header>

<ion-content>
  <ion-item>
    <ion-label position="floating">First Name</ion-label>
    <ion-input type="text" [(ngModel)]="first_name"></ion-input>
  </ion-item>
  <ion-item>
    <ion-label position="floating">Last Name</ion-label>
    <ion-input type="text" [(ngModel)]="last_name"></ion-input>
  </ion-item>
  <ion-item>
    <ion-label position="floating">Email</ion-label>
    <ion-input type="email" [(ngModel)]="email"></ion-input>
  </ion-item>
  <ion-button expand="full" (click)="addUser()">Add User</ion-button>
```

```
</ion-content>
```

```
<ion-header [translucent]="true">
  <ion-toolbar>
    <ion-title>
      Tab 3
    </ion-title>
  </ion-toolbar>
</ion-header>

<ion-content [fullscreen]="true">
  <ion-header collapse="condense">
    <ion-toolbar>
      <ion-title size="large">Tab 3</ion-title>
    </ion-toolbar>
  </ion-header>

  <app-explore-container name="Tab 3 page"></app-explore-container>
</ion-content>
```

```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { Subject } from 'rxjs';
import { map } from 'rxjs/operators';

@Injectable({
  providedIn: 'root'
})
export class UserService {
  private users: any[] = [];
  userChanged = new Subject<void>();

  constructor(private http: HttpClient) {}

  getUsers(): any[] {
    return this.users;
  }
}
```

```
setUsers(users: any[]) {
  this.users = [...this.users, ...users];
  this.userChanged.next();
}

addUser(user: any) {
  this.users.push(user);
  this.userChanged.next();
}

removeUser(user: any) {
  const index = this.users.indexOf(user);
  if (index !== -1) {
    this.users.splice(index, 1);
    this.userChanged.next();
  }
}

loadUsersFromApi() {
  return this.http.get<any>('https://reqres.in/api/users').pipe(
    map(response => response.data)
  );
}
```

Questions n Answers :

a) what is the use of HTTP?

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HTTP (Hypertext Transfer Protocol) is a protocol used for communication between a client and a server over the internet. It is the foundation of data communication on the World Wide Web. The primary purpose of HTTP is to facilitate the transfer of hypertext (such as HTML pages) and other resources between clients (such as web browsers) and servers.

b) What is the difference between HttpClient and HttpClientModule?

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HttpClient: HttpClient is a service provided by Angular for making HTTP requests from an Angular application. It is used to send HTTP requests to web servers and handle responses asynchronously. HttpClient provides methods for performing HTTP operations such as GET, POST, PUT, DELETE, etc.

HttpClientModule: HttpClientModule is an Angular module that provides HttpClient service and related features. It must be imported into the Angular application's root module (usually AppModule) to enable the usage of HttpClient throughout the application. HttpClientModule

provides additional configuration options and interceptors for customizing HTTP requests and responses.

c) What is GET and POST method used for? what is the structure for the same.

- >

GET Method: The GET method is used to request data from a specified resource. It is used to retrieve data from the server. Parameters are sent in the URL query string.

Example URL: `https://example.com/api/data?param1=value1¶m2=value2`

GET requests are typically idempotent, meaning multiple identical requests will produce the same result.

POST Method: The POST method is used to send data to a server to create or update a resource. It is used to submit data to the server. Parameters are sent in the request body.

POST requests can contain more data and are more secure than GET requests.

POST and PATCH methods are not idempotent so more same request is hit more actions will be executed.

d) List all the methods used with HTTP.

GET, POST, PUT, DELETE, PATCH, HEAD, OPTIONS, TRACE, and CONNECT.

e) What is the use of subscribe and map in HTTP?

->

subscribe: The subscribe method is used to initiate an HTTP request and subscribe to the observable that represents the response.

It allows you to handle the response data asynchronously and perform actions based on the result of the HTTP request.

The subscribe method takes one or more callback functions as arguments, which are executed when the request completes or encounters an error.

