

## Angular HTTP Client Practice

This repository contains **practice examples of Angular HTTP Client** for handling API communication.

It demonstrates how to perform **CRUD operations**, handle **errors**, and work with **real-world REST APIs** using Angular.

---

### What This Repository Covers

- ✓ HTTP GET, POST, PUT, DELETE
  - ✓ REST API integration
  - ✓ Observables & RxJS
  - ✓ Error handling
  - ✓ HTTP Headers & Params
  - ✓ Services & Best Practices
- 

### What is Angular HTTP Client?

Angular provides the **HttpClient module** to communicate with backend services using HTTP protocols.

It helps in:

- Fetching data from APIs
  - Sending data to servers
  - Updating & deleting records
  - Handling async data with Observables
- 

### Features Implemented

#### GET Request

- Fetch data from API
- Display data in UI
- Handle loading states

## POST Request

- Send form data to backend
- Create new records

## PUT / PATCH Request

- Update existing records
- Partial and full updates

## DELETE Request

- Remove records from server
  - Confirm before deletion
- 

## Technologies Used

- Angular
  - TypeScript
  - RxJS
  - REST API
  - HTML5 & CSS3
  - Bootstrap (optional)
- 

## Angular Modules Used

```
import { HttpClientModule } from '@angular/common/http';

@NgModule({
  imports: [
    HttpClientModule
  ]
})

export class AppModule {}
```

---

## Error Handling

- ✓ Network error handling
  - ✓ Server error responses
  - ✓ User-friendly error messages
  - ✓ catchError with RxJS
- 

## Sample HTTP Service Structure

```
src/  
  └── app/  
    ├── services/  
    │   └── api.service.ts  
    ├── components/  
    │   └── user.component.ts  
    └── app.module.ts
```

---

## How to Run This Project

**1** Clone the repository

```
git clone https://github.com/your-username/angular-http-practice.git
```

**2** Navigate to the project folder

```
cd angular-http-practice
```

**3** Install dependencies

```
npm install
```

**4** Start the development server

```
ng serve
```

**5** Open browser

<http://localhost:4200>

---

## Learning Objectives

- Understand Angular HTTP Client
  - Learn REST API integration
  - Work with Observables and RxJS
  - Implement clean service-based architecture
  - Prepare for Angular interviews
- 

## Future Enhancements

- Add Interceptors
  - Add Authentication (JWT)
  - Add Loader & Spinner
  - Pagination & Search
  - Angular Material UI
- 

## Contributions

Contributions are welcome!

Feel free to fork this repository and submit pull requests 😊

---

## License

This project is licensed under the **MIT License**.

---

If you want, I can also:

-  Add **mock API (JSON Server)** section
-  Make it **interview-question oriented**

-   Customize it with **your name & profile**
-  Add **Auth + Interceptor README**