Angular Training

(Intermediate to Advanced)

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Schedule for Angular Training

Day#	Date	Topic
Day-1	16-Nov-2023	Custom Pipes in Angular
Day-2	17-Nov-2023	Parent-Child Communication
Day-3	20-Nov-2023	Custom Directives in Angular
Day-4	21-Nov-2023	Working with Reactive Forms
Day-5	22-Nov-2023	Dependency Injection and Services in Angular
Day-6	23-Nov-2023	Http Client – Server calls in Angular
Day-7	24-Nov-2023	Routing and Security in Angular
Day-8	27-Nov-2023	Unit Testing in Angular

Duration: 8 days (2hours per day); 2pm to 4 pm; 16th Nov – 27th Nov

Day6 Http Client – Server calls in Angular



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Index – Day6

- Why do we need server Communication?
- Pre-Requisite Concepts
- Understanding Http Calls
- Angular Library : HttpClient
 - Understanding HttpClient Service Class
- Perform CRUD Operations
- Demo Examples
- MEAN Integration

Server Communication Using HTTP Client

Why do we need Server Communication?

- Most front-end applications need to communicate with a server over the HTTP protocol, to send or receive data and access other back-end services.
- Angular provides a client HTTP API for Angular applications, the HttpClient service class in @angular/common/http.



Pre-Requisite Concepts

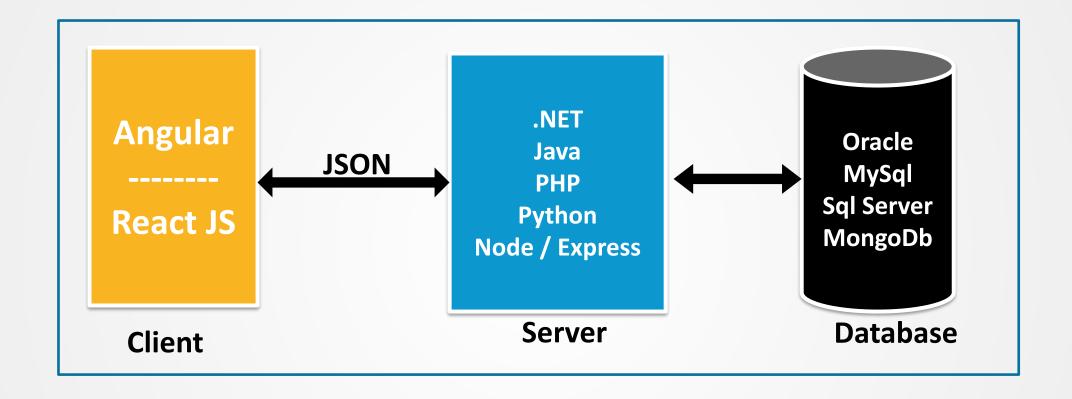
- AJAX
- JSON
- XmlHttpRequest / Fetch / \$.ajax() / axios / HttpClient
- Server Side Code: Web API
- JSON Server



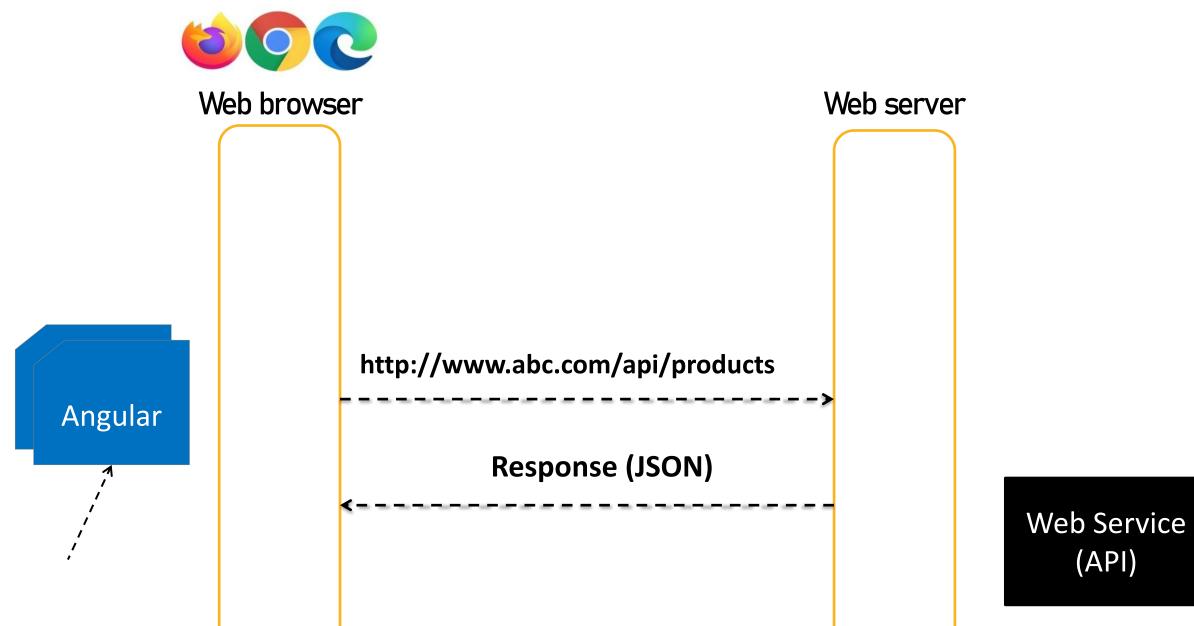
Understanding Http Calls

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Pre-Requisite Concepts









Angular Library: HttpClient

- Angular provides a client HTTP API for Angular applications, the HttpClient service class in @angular/common/http.
- Before you can use HttpClient, you need to import the Angular HttpClientModule
- You can then inject the HttpClient service as a dependency of an application class



HttpClient Service Class

```
import { HttpClient } from '@angular/common/http';
import { Component } from '@angular/core';
@Component({...})
export class HttpDemo1Component {
  customersArray:any[] = [];
  constructor(private httpClient:HttpClient)
```

Practical HandsOns

Performing CRUD operations

CRUD Opeations

- GET: this.httpObj.get(url)
- POST: this.httpObj.post(url, obj)
- PUT: this.httpObj.put(url, obj)
- DELETE: this.httpObj.delete(url)



CRUD Opeations

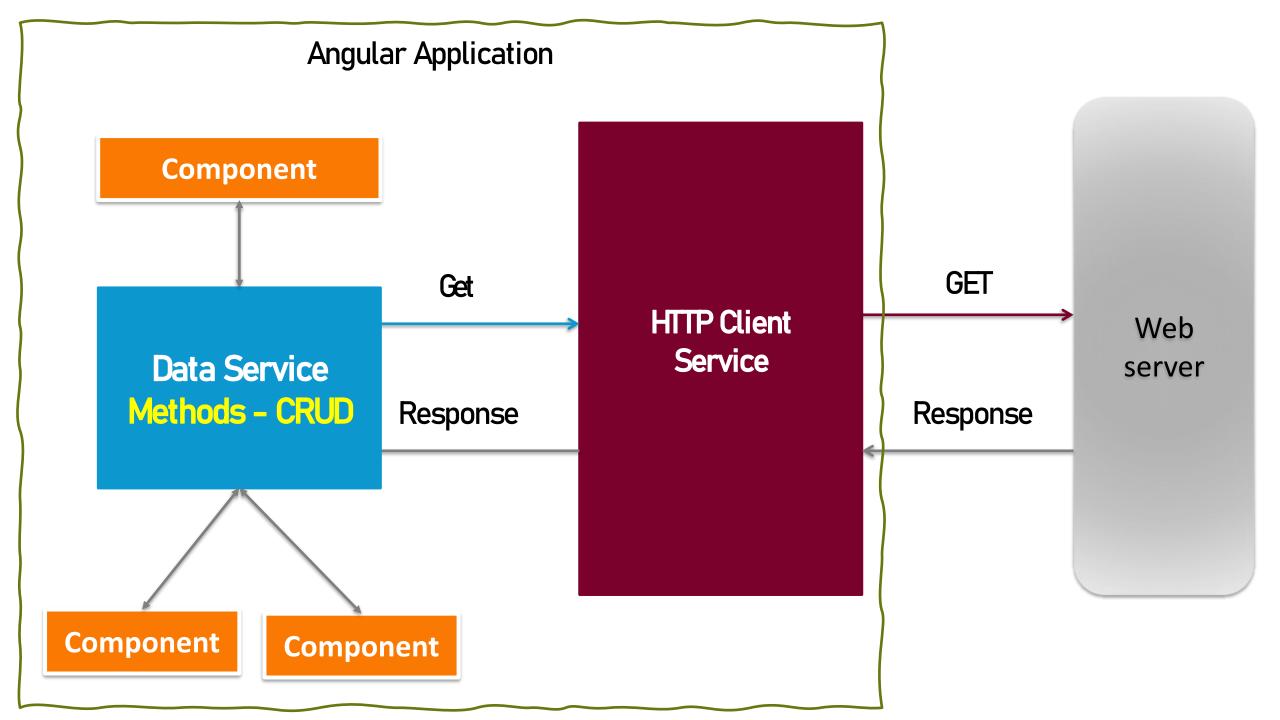
```
Read All
                      get(url)
                                             /depts
                      get(url)
                                             /depts/20
    Read Single -
2.
                                             /depts
                      post(url, obj)
3.
    Create
                                             /depts/20
                    put(url, obj)
    Update
4.
                                             /depts/20
    Delete
                    delete(url)
5.
```



Configure JSON-Server

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Perform AJAX Operations using Angular Services



Assignment

Perform	CRUD	operations	with	remote	data	in Angular

Employee Name Job

0 0

Get Employees

Add Employee

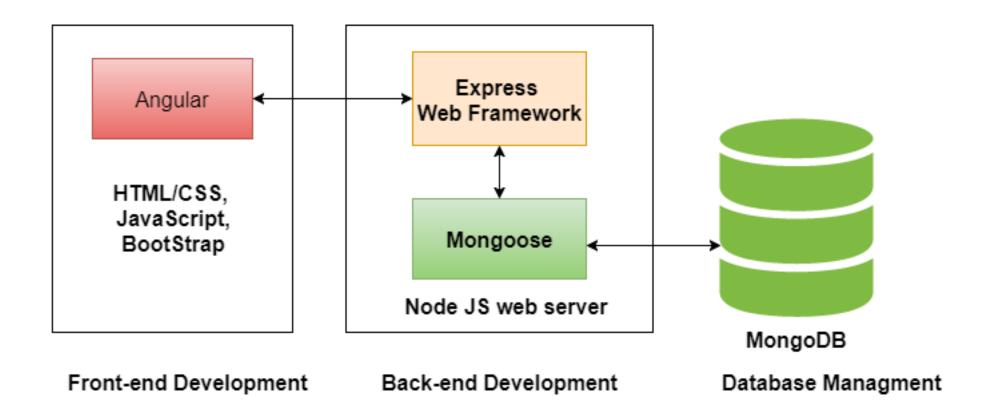
Update Employee

Clear Fields

Employee No	Employee Name	Job	Salary	Dept No	
6589	SRIRAM	MANAGER	3200	32	Select Delete
6369	SMITH	CLERK	800	20	Select Delete
6499	ALLEN	SALESMAN	1600	30	Select Delete
6521	WARD	ANALYST	1250	30	Select Delete
6566	JONES	MANAGER	2975	20	Select Delete
7654	MARTIN	SALESMAN	1250	30	Select Delete
7698	BLAKE	MANAGER	2850	30	Select Delete
7782	CLARK	MANAGER	2450	10	Select Delete

MEAN Integration

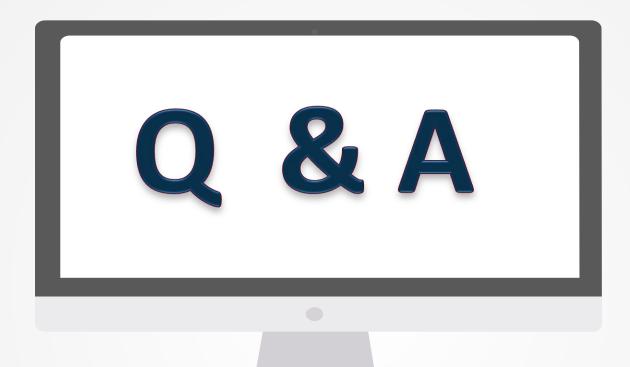
MEAN Stack Development





Practical HandsOns





Index – Day7

- Why do we need server Communication
- What is HttpClient?
- How to register it?
- Performing CRUD operations (use json-server as backend)
- GET, POST, PUT, DELETE
- Angular Service for HttpClient calls
- Handling Request Errors
- Configuring HTTP URL parameters
- Showing how to add a 404 Page