

Angular 9/8/7 MEAN Stack CRUD App with Bootstrap 4

- Employee management system using Angular 7/8/9 MEAN stack.
- Step-by-step process to build an Angular 7 CRUD (Create, Read, Update, Delete) app from scratch.
- Node.js, Express.js, MongoDB for backend and Angular 7/8/9 for handling frontend.

Let us understand what does MEAN stack means.

- `Mongo DB` – It's an open-source NoSQL cross-platform document-oriented database.
- `Express JS` – It's a web-based application framework work with Node JS, It helps to build web apps and RESTful APIs.
- `Angular 7/8/9` – Its a TypeScript based complete front-end framework developed by Google team.
- `Node JS` – It is a free JavaScript run time environment, It executes JavaScript code outside of a browser. It is available for MacOS, Windows, Linux and Unix.

Plugins and tools to create MEAN Stack app.

- Node JS
- MongoDB
- Mongoose JS
- Express JS
- Angular CLI 7.2.3
- Visual Studio Code

STEPS :

- ✓ Setup Node JS
- ✓ Build a Node.JS Backend
- ✓ Connect MongoDB Database with Angular 7/8/9 MEAN Stack App
- ✓ Create Model with Mongoose JS
- ✓ Create RESTful APIs using Express JS Routes
- ✓ Set up Angular 9 MEAN Stack Project
- ✓ Activate Routing Service in MEAN Stack Angular App
- ✓ Create Angular 9/8/7 Service to Consume RESTful APIs
- ✓ Register an Employee by Consuming RESTful API in Angular 7 MEAN Stack App
- ✓ Show Employees List and Delete Student Object using RESTful API in MEAN Stack App
- ✓ Edit Employees Data in MEAN Stack Angular 7 App

#1 Setup Node JS development environment

Follow this link to [set up Node JS in your system.](#)

#2 Build a Node.JS Backend

To write the manageable code, we should keep the MEAN Stack backend folder separate. Create a folder by the name of the **backend** in Angular's root directory. This folder will handle the backend code of our application, remember it will have the separate **node_modules** folder from Angular 7/8/9.

```
mkdir backend
```

Enter the below command to get into the backend folder.

```
cd backend
```

Now you are inside the **backend** folder, run the below command to create the `package.json` file. This file will have the meta data of

your MEAN Stack app, It is also known as the manifest file of any NodeJS project.

```
npm init -y
```

– Install and Configure required NPM packages for MEAN Stack app development

Use the below command to install the following node modules.

```
npm install --save body-parser  
cors express mongoose
```

- **body-parser:** The body-parser npm module is a JSON parsing middleware. It helps to parse the JSON data, plain text or a whole object.
- **CORS:** This is a Node JS package, also known as the express js middleware. It allows enabling CORS with multiple options. It is available through the npm registry.
- **Express.js:** Express js is a free open source Node js web application framework. It helps in creating web applications and RESTful APIs.
- **Mongoose:** Mongoose is a MongoDB ODM for Node. It allows you to interact with MongoDB database.

Starting a server every time a change is made is a time-consuming task. To get rid of this problem we use [nodemon](#) npm module. This package restarts the server automatically every time we make a change. We'll be installing it locally by using given below command.

```
npm install nodemon --save-dev
```

Now, go within the backend folder's root, create a file by the name of `server.js`.

```
touch server.js
```

Now within the `backend > server.js` file add the given below code.

```
let express = require('express'),

    path = require('path'),

    mongoose = require('mongoose'),

    cors = require('cors'),

    bodyParser = require('body-parser'),

    dbConfig = require('./database/db');

// Connecting with mongo db

mongoose.Promise = global.Promise;

mongoose.connect(dbConfig.db, {

    useUrlParser: true
```

```
}).then(() => {

    console.log('Database sucessfully connected')

},

error => {

    console.log('Database could not connected: ' + error)

}

)

// Setting up port with express js

const employeeRoute = require('../backend/routes/employee.route')

const app = express();

app.use(bodyParser.json());

app.use(bodyParser.urlencoded({

    extended: false

}));
```

```
app.use(cors());

app.use(express.static(path.join(__dirname, 'dist/mean-stack-crud-app')));

app.use('/', express.static(path.join(__dirname, 'dist/mean-stack-crud-app')));

app.use('/api', employeeRoute)


// Create port

const port = process.env.PORT || 4000;

const server = app.listen(port, () => {

  console.log('Connected to port ' + port)

})


// Find 404 and hand over to error handler

app.use((req, res, next) => {

  next(createError(404));

});
```

```
// error handler

app.use(function (err, req, res, next) {

  console.error(err.message); // Log error message in our server's console

  if (!err.statusCode) err.statusCode = 500; // If err has no specified error
code, set error code to 'Internal Server Error (500)'

  res.status(err.statusCode).send(err.message); // All HTTP requests must have
a response, so let's send back an error with its status code and message

});
```

#3 Connect MongoDB Database with Angular 7/8/9 MEAN Stack App

use the below commands to setup MongoDB.

Create a **database** folder within the **backend** folder.

```
mkdir database
```

Go inside the database folder.

```
cd database
```

Then create the `backend > database > db.js` file inside the database folder.

touch db.js

Include the given below code in `backend > database > db.js` file.

```
module.exports = {  
  
  db: 'mongodb://localhost:27017/meandb'  
  
};
```

Note: `meandb` is the database name.

Now we need to make the connection between MongoDB and MEAN Stack app. Go to `backend > server.js` file and include the below code.

```
let mongoose = require('mongoose');  
  
  
// Connecting with mongo db  
  
mongoose.Promise = global.Promise;  
  
mongoose.connect(dbConfig.db, {  
  
  useNewUrlParser: true  
  
}).then(() => {  
  
  console.log('Database successfully connected')
```



```
},  
  
error => {  
  
    console.log('Database could not connected: ' + error)  
  
}
```

#4 Create Model with Mongoose JS

Let us create the **models** folder inside the backend folder.

```
mkdir models
```

create the **Employee.js** file.

```
touch Employee.js
```

In this file define the Schema for employees collection. data types are **name**, **email**, **designation** and **phoneNumber**. Add the given below code in `backend > models > Employee.js` file.

```
const mongoose = require('mongoose');  
  
const Schema = mongoose.Schema;  
  
// Define collection and schema  
  
let Employee = new Schema({
```

```
name: {

    type: String

},

email: {

    type: String

},

designation: {

    type: String

},

phoneNumber: {

    type: Number

}

}, {

    collection: 'employees'

})
```

```
module.exports = mongoose.model('Employee', Employee)
```

#5 Create RESTful APIs using Express JS Routes

Let us create the routes in Angular 7/8/9 app to access the Employee data through RESTful APIs. Here Mongoose.js is used to create, read, update & delete data from MongoDB database.

Create `backend > routes > employee.route.js` file inside the routes folder.

```
touch employee.route.js
```

Add the given below code to create RESTful APIs in MEAN Stack app using mongoose.js.

```
const express = require('express');

const app = express();

const employeeRoute = express.Router();

// Employee model

let Employee = require('../models/Employee');
```

```
// Add Employee

employeeRoute.route('/create').post((req, res, next) => {

  Employee.create(req.body, (error, data) => {

    if (error) {

      return next(error)

    } else {

      res.json(data)

    }

  })

});
```

```
// Get All Employees

employeeRoute.route('/').get((req, res) => {

  Employee.find((error, data) => {

    if (error) {
```

```
        return next(error)

    } else {

        res.json(data)

    }

}))

}))

// Get single employee

employeeRoute.route('/read/:id').get((req, res) => {

    Employee.findById(req.params.id, (error, data) => {

        if (error) {

            return next(error)

        } else {

            res.json(data)

        }

    })

})
```

```
    })

  })

  // Update employee

  employeeRoute.route('/update/:id').put((req, res, next) => {

    Employee.findByIdAndUpdate(req.params.id, {

      $set: req.body

    }, (error, data) => {

      if (error) {

        return next(error);

        console.log(error)

      } else {

        res.json(data)

        console.log('Data updated successfully')
```

```
    }

  })

})

// Delete employee

employeeRoute.route('/:delete/:id').delete((req, res, next) => {

  Employee.findOneAndRemove(req.params.id, (error, data) => {

    if (error) {

      return next(error);

    } else {

      res.status(200).json({

        msg: data

      })

    }

  })

})
```

```
})
```

```
module.exports = employeeRoute;
```

We have set up our MEAN Stack Angular app's backend using Node js, Express js, Angular and MongoDB.

We have to start 3 servers in our app to start the development in MEAN Stack Angular app.

Start Angular Server

```
ng serve
```

Start Nodemon Server

In order to start nodemon server, first enter into the backend folder using given below command.

```
cd backend
```

Then run the following command to start the nodemon server.

```
nodemon server
```

You'll get the following output in your terminal.

```
# [nodemon] 1.18.6
```

```
# [nodemon] to restart at any time, enter `rs`
```



```
# [nodemon] watching: *.*  
  
# [nodemon] starting `node server.js`  
  
# Connected to port 4000  
  
# Database successfully connected
```

Start MongoDB Server

Open the new terminal enter into the backend folder then use the below command to start the mongoDB server.

```
mongod
```

You can access your API route on given below url, here you can check your data.

Check your Angular frontend on – <http://localhost:4200>

You can check your api url on – <http://localhost:4000/api>

MEAN Stack App RESTful APIs

We have successfully created APIs to handle CRUD operations in our MEAN Stack app.

Method	API url
GET	/api
POST	/create

Method	API url
GET	/read/id
PUT	/update/id
DELETE	/delete/id

To test the REST API you must use the below command.

```
curl -i -H "Accept: application/json"
localhost:4000/api
```

Given below output indicates that your REST API is ready to go.

```
HTTP/1.1 200 OK

X-Powered-By: Express

Access-Control-Allow-Origin: *

Content-Type: application/json; charset=utf-8

Content-Length: 2

ETag: W/"2-19Fw4VU07kr8CvBlt4zaMCqXZ0w"

Date: Sat, 11 May 2019 17:06:09 GMT

Connection: keep-alive
```

#6 Set up Angular 7 MEAN Stack Project

Install Angular CLI

Angular project is developed using Angular CLI, so before setting up Angular project. You must have Angular CLI installed in your system. Hit the given below command to install the Angular CLI, ignore if Angular CLI is already installed.

```
npm install @angular/cli -g
```

Let us install Angular project, run the following command.

```
ng new mean-stack-crud-app
```

Angular CLI asks for your choices while setting up the project...

Would you like to add Angular routing?

Select y and Hit Enter.

Which stylesheet format would you like to use? (Use arrow keys)

Choose CSS and hit Enter

Your Angular project is installed now get into the project directory.

```
cd mean-stack-crud-app
```

If using visual studio code editor then use the below cmd to open the project.

```
code .
```

For this demo **MEAN**, Use Bootstrap 4 for creating employee management system. Use the following cmd to install Bootstrap 4.

```
npm install bootstrap
```

Then, Go to `angular.json` file and add the below code in “**styles**”: `[]` array like given below.

```
"styles": [  
  
    "node_modules/bootstrap/dist/css/bootstrap.min.css",  
  
    "src/styles.css"  
]
```

Generate components in Angular app.

In order to manage components keep all the components in components folder, use the below cmd to generate components.

```
ng g c components/employee-create
```

```
ng g c components/employee-edit
```

```
ng g c components/employee-list
```

Your Angular app has been set up for MEAN Stack development. enter the below command to run the project.

```
ng serve
```

#7 Activate Routing Service in MEAN Stack Angular App

In order to navigate between multiple components, we must set up routing service in our app. Now if you remember while setting up an Angular project, CLI asked this question “**Would you like to add Angular routing?**”. We selected yes, it automatically created `app-routing.module.ts` and registered in `src > app > app.module.ts` file.

Include the below code to enable routing service in Angular app.

```
import { NgModule } from '@angular/core';

import { Routes, RouterModule } from '@angular/router';

import { EmployeeCreateComponent } from './components/employee-create/employee-create.component';

import { EmployeeListComponent } from './components/employee-list/employee-list.component';

import { EmployeeEditComponent } from './components/employee-edit/employee-edit.component';

const routes: Routes = [
```

```

    { path: '', pathMatch: 'full', redirectTo: 'create-employee' },

    { path: 'create-employee', component: EmployeeCreateComponent },

    { path: 'edit-employee/:id', component: EmployeeEditComponent },

    { path: 'employees-list', component: EmployeeListComponent }

];

@NgModule({

    imports: [RouterModule.forRoot(routes)],

    exports: [RouterModule]

})

export class AppRoutingModule { }

```

To enable routing service include the below code in `app.component.ts` file.

```

<nav>

    <a routerLinkActive="active" routerLink="/employees-list">View Employees</a>

```

```
<a routerLinkActive="active" routerLink="/create-employee">Add Employee</a>

</nav>

<router-outlet></router-outlet>
```

#8 Create Angular 9/8/7 Service to Consume RESTful APIs

To consume RESTful API in MEAN Stack Angular 7 app, we need to create a service file. This service file will handle Create, Read, Update and Delete operations.

Before we create service in MEAN Stack app to consume RESTful APIs, We need to do 2 following things:

– Configure the HttpClientModule

We need to import `HttpClientModule` service in `app.module.ts` file.

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

@NgModule({

  imports: [

    HttpClientModule

  ]
```

```
})
```

You've successfully placed the **HttpClientModule** in your Angular app.

– Create Employee Model File

Create `src > model > employee.ts` file.

```
ng g c model/Employee
```

Add the following code in it.

```
export class Employee {  
  
  name: string;  
  
  email: string;  
  
  designation: string;  
  
  phoneNumber: number;  
  
}
```

Create Angular Service

Use the given below cmd to create Angular Service file to manage CRUD operations in MEAN Stack Angular 7/8/9 app.

```
ng g s service/api
```


Now go to `src > app > service > api.service.ts` file and add the below code.

```
import { Injectable } from '@angular/core';

import { Observable, throwError } from 'rxjs';

import { catchError, map } from 'rxjs/operators';

import { HttpClient, HttpHeaders, HttpResponseError } from '@angular/common/http';

@Injectable({
  providedIn: 'root'
})

export class ApiService {

  baseUrl:string = 'http://localhost:4000/api';

  headers = new HttpHeaders().set('Content-Type', 'application/json');
```

```
constructor(private http: HttpClient) { }
```

```
// Create
```

```
createEmployee(data): Observable<any> {
```

```
    let url = `${this.baseUrl}/create`;
```

```
    return this.http.post(url, data)
```

```
        .pipe(
```

```
            catchError(this.errorMgmt)
```

```
        )
```

```
    }
```

```
// Get all employees
```

```
getEmployees() {
```

```
    return this.http.get(`${this.baseUrl}`);
```

```
}
```

```
// Get employee
```

```
getEmployee(id): Observable<any> {
```

```
    let url = `${this.baseUrl}/read/${id}`;
```

```
    return this.http.get(url, {headers: this.headers}).pipe(
```

```
        map((res: Response) => {
```

```
            return res || {}
```

```
        })),
```

```
        catchError(this.errorMgmt)
```

```
    )
```

```
}
```

```
// Update employee
```

```
updateEmployee(id, data): Observable<any> {
```

```
    let url = `${this.baseUrl}/update/${id}`;
```

```
        return this.http.put(url, data, { headers: this.headers }).pipe(

            catchError(this.errorMgmt)

        )

    }

// Delete employee

deleteEmployee(id): Observable<any> {

    let url = `${this.baseUrl}/delete/${id}`;

    return this.http.delete(url, { headers: this.headers }).pipe(

        catchError(this.errorMgmt)

    )

}

// Error handling

errorMgmt(error: HttpResponse) {
```

```

let errorMessage = '';

if (error.error instanceof ErrorEvent) {

    // Get client-side error

    errorMessage = error.error.message;

} else {

    // Get server-side error

    errorMessage = `Error Code: ${error.status}\nMessage: ${error.message}`;

}

console.log(errorMessage);

return throwError(errorMessage);

}

```

We have created Angular 7/8/9 service file to handle CRUD operations in our app, now go to `app.module.ts` file and import this service and add into the **providers** array like given below.

```

import { ApiService } from './service/api.service';

```

```
@NgModule({  
  
  providers: [ApiService]  
  
})
```

#9 Register an Employee by Consuming RESTful API in Angular 7 MEAN Stack App

To register an employee we will use Angular service and RESTful APIs. Here we have Reactive Forms to register an employee. We are also covering Reactive forms validations in our MEAN Stack app tutorial.

Go to `components > employee-create > employee-create.component.ts` file and add the following code.

```
import { Router } from '@angular/router';  
  
import { ApiService } from '../../../service/api.service';  
  
import { Component, OnInit, NgZone } from '@angular/core';  
  
import { FormGroup, FormBuilder, Validators } from '@angular/forms';  
  
@Component({  
  
  selector: 'app-employee-create',
```

```
templateUrl: './employee-create.component.html',

styleUrls: ['./employee-create.component.css']

}))

export class EmployeeCreateComponent implements OnInit {

    submitted = false;

    employeeForm: FormGroup;

    EmployeeProfile:any = ['Finance', 'BDM', 'HR', 'Sales', 'Admin']

    constructor(

        public fb: FormBuilder,

        private router: Router,

        private ngZone: NgZone,

        private apiService: ApiService

    ) {
```

```
this.mainForm();

}

ngOnInit() { }

mainForm() {

    this.employeeForm = this.fb.group({

        name: ['', [Validators.required]],

        email: ['', [Validators.required, Validators.pattern('[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,3}$')]],

        designation: ['', [Validators.required]],

        phoneNumber: ['', [Validators.required, Validators.pattern('^[\0-9]+$')]]

    })

}

// Choose designation with select dropdown
```



```
updateProfile(e){

    this.employeeForm.get('designation').setValue(e, {

        onlySelf: true

    })

}

// Getter to access form control

get myForm(){

    return this.employeeForm.controls;

}


onSubmit() {

    this.submitted = true;

    if (!this.employeeForm.valid) {

        return false;
    }
}
```

```

    } else {

        this.apiService.createEmployee(this.employeeForm.value).subscribe(

            (res) => {

                console.log('Employee successfully created!')

                this.ngZone.run(() => this.router.navigateByUrl('/employees-list'))

            }, (error) => {

                console.log(error);

            });

        }

    }

}

```

Go to `employee-create.component.html` add the following code.

```

<div class="row justify-content-center">

    <div class="col-md-4 register-employee">

```



```
        <option *ngFor="let employeeProfile of EmployeeProfile"
value="{{employeeProfile}}">{{employeeProfile}}
```

```
    </option>
```

```
</select>
```

```
<!-- error -->
```

```
    <div class="invalid-feedback" *ngIf="submitted &&
myForm.designation.errors?.required">
```

```
        Choose designation.
```

```
    </div>
```

```
</div>
```

```
<div class="form-group">
```

```
    <label for="inputVerify3">Mobile No</label>
```

```
    <input class="form-control" type="text"
formControlName="phoneNumber">
```

```
<!-- error -->
```

```
    <div class="invalid-feedback" *ngIf="submitted &&
myForm.phoneNumber.errors?.required">
```

Enter your phone number.

</div>

<div class="invalid-feedback" *ngIf="submitted &&
myForm.phoneNumber.errors?.pattern">

Enter Numbers Only

</div>

</div>

<div class="form-group">

<button class="btn btn-success btn-lg btn-block"
type="submit">Register</button>

</div>

</form>

</div>

</div><!-- form card register -->

</div>

#10 Show Employees List and Delete Student Object using RESTful API in MEAN Stack App

Go to `src/app/components/employee-list/employee-list.component.ts` file and include the below code.

```
import { Component, OnInit } from '@angular/core';

import { ApiService } from './../../service/api.service';

@Component({

  selector: 'app-employee-list',

  templateUrl: './employee-list.component.html',

  styleUrls: ['./employee-list.component.css']

})

export class EmployeeListComponent implements OnInit {

  Employee:any = [];
```

```
constructor(private apiService: ApiService) {

    this.readEmployee();

}

ngOnInit() {}

readEmployee(){

    this.apiService.getEmployees().subscribe((data) => {

        this.Employee = data;

    })

}

removeEmployee(employee, index) {

    if(window.confirm('Are you sure?')) {

        this.apiService.deleteEmployee(employee._id).subscribe((data) => {
```



```

        this.Employee.splice(index, 1);

    }

    )

}

}

}

```

To display employees list open the [src/app/components/employee-list/employee-list.component.html](#) file and add the following code in it.

```

<div class="container">

    <!-- No data message -->

    <p *ngIf="Employee.length <= 0" class="no-data text-center">There is no
employee added yet!</p>

    <!-- Employee list -->

    <table class="table table-bordered" *ngIf="Employee.length > 0">

```

```
<thead class="table-success">

  <tr>

    <th scope="col">Employee ID</th>

    <th scope="col">Name</th>

    <th scope="col">Email</th>

    <th scope="col">Designation</th>

    <th scope="col">Phone No</th>

    <th scope="col center">Update</th>

  </tr>

</thead>

<tbody>

  <tr *ngFor="let employee of Employee; let i = index">

    <th scope="row">{{employee._id}}</th>

    <td>{{employee.name}}</td>

    <td>{{employee.email}}</td>
```

```
<td>{{employee.designation}}</td>

<td>{{employee.phoneNumber}}</td>

<td class="text-center edit-block">

    <span class="edit" [routerLink]="['/edit-employee/', employee._id]">

        <button type="button" class="btn btn-success btn-sm">Edit</button>

    </span>

    <span class="delete" (click)="removeEmployee(employee, i)">

        <button type="button" class="btn btn-danger btn-
sm">Delete</button>

    </span>

</td>

</tr>

</tbody>

</table>

</div>
```

#11 Edit Employees Data in MEAN Stack Angular 7 App

In order to edit employees data we need to add the following code in `src/app/components/employee-edit/employee-edit.component.html` file.

```
<div class="row justify-content-center">

  <div class="col-md-4 register-employee">

    <!-- form card register -->

    <div class="card card-outline-secondary">

      <div class="card-header">

        <h3 class="mb-0">Edit Employee</h3>

      </div>

      <div class="card-body">

        <form [formGroup]="editForm" (ngSubmit)="onSubmit()">

          <div class="form-group">

            <label for="inputName">Name</label>

            <input class="form-control" type="text" formControlName="name">
```

```
<div class="invalid-feedback" *ngIf="submitted &&
myForm.name.errors?.required">

    Name is required.

</div>

</div>

<div class="form-group">

    <label for="inputEmail3">Email</label>

    <input class="form-control" type="text" formControlName="email">

    <!-- error -->

    <div class="invalid-feedback" *ngIf="submitted &&
myForm.email.errors?.required">

        Enter your email.

    </div>

    <div class="invalid-feedback" *ngIf="submitted &&
myForm.email.errors?.pattern">

        Enter valid email.

    </div>

</div>
```

```
<div class="form-group">

  <label for="inputPassword3">Designation</label>

  <select class="custom-select form-control"
(change)="updateProfile($event.target.value)"

    FormControlName="designation">

    <option value="">Choose...</option>

    <option *ngFor="let employeeProfile of EmployeeProfile"
value="{{employeeProfile}}">{{employeeProfile}}

    </option>

  </select>

  <!-- error -->

  <div class="invalid-feedback" *ngIf="submitted &&
myForm.designation.errors?.required">

    Choose designation.

  </div>

</div>
```

```

<div class="form-group">

    <label for="inputVerify3">Mobile No</label>

    <input class="form-control" type="text"
formControlName="phoneNumber">

    <!-- error -->

    <div class="invalid-feedback" *ngIf="submitted &&
myForm.phoneNumber.errors?.required">

        Enter your phone number.

    </div>

    <div class="invalid-feedback" *ngIf="submitted &&
myForm.phoneNumber.errors?.pattern">

        Enter Numbers Only

    </div>

</div>

<div class="form-group">

    <button class="btn btn-success btn-lg btn-block"
type="submit">Update</button>

```

```

        </div>

        </form>

    </div>

    </div><!-- form -->

</div>

</div>

```

To edit employees data we need to add the following code in `src/app/components/employee-edit/employee-edit.component.ts` file.

```

import { Employee } from '../../../model/Employee';

import { Component, OnInit } from '@angular/core';

import { ActivatedRoute, Router } from "@angular/router";

import { ApiService } from '../../../service/api.service';

import { FormGroup, FormBuilder, Validators } from "@angular/forms";

@Component({

```



```
selector: 'app-employee-edit',

templateUrl: './employee-edit.component.html',

styleUrls: ['./employee-edit.component.css']

}))

export class EmployeeEditComponent implements OnInit {

    submitted = false;

    editForm: FormGroup;

    employeeData: Employee[];

    EmployeeProfile: any = ['Finance', 'BDM', 'HR', 'Sales', 'Admin']

    constructor(

        public fb: FormBuilder,

        private actRoute: ActivatedRoute,

        private apiService: ApiService,
```

```
private router: Router

) {}

ngOnInit() {

  this.updateEmployee();

  let id = this.actRoute.snapshot.paramMap.get('id');

  this.getEmployee(id);

  this.editForm = this.fb.group({

    name: ['', [Validators.required]],

    email: ['', [Validators.required, Validators.pattern('[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,3}$')]],

    designation: ['', [Validators.required]],

    phoneNumber: ['', [Validators.required, Validators.pattern('^[\d-9]+$')]]

  })

}
```

```
// Choose options with select-dropdown

updateProfile(e) {

  this.editForm.get('designation').setValue(e, {

    onlySelf: true

  })

}

// Getter to access form control

get myForm() {

  return this.editForm.controls;

}

getEmployee(id) {

  this.apiService.getEmployee(id).subscribe(data => {

    this.editForm.setValue({
```

```
name: data['name'],

email: data['email'],

designation: data['designation'],

phoneNumber: data['phoneNumber'],

});

});

}
```

```
updateEmployee() {

  this.editForm = this.fb.group({

    name: ['', [Validators.required]],

    email: ['', [Validators.required, Validators.pattern('[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,3}$')]],

    designation: ['', [Validators.required]],

    phoneNumber: ['', [Validators.required, Validators.pattern('^[\d-]+$')]]

  })
```

```
}
```

```
onSubmit() {
```

```
  this.submitted = true;
```

```
  if (!this.editForm.valid) {
```

```
    return false;
```

```
  } else {
```

```
    if (window.confirm('Are you sure?')) {
```

```
      let id = this.actRoute.snapshot.paramMap.get('id');
```

```
      this.apiService.updateEmployee(id, this.editForm.value)
```

```
        .subscribe(res => {
```

```
          this.router.navigateByUrl('/employees-list');
```

```
          console.log('Content updated successfully!')
```

```
        }, (error) => {
```

```
          console.log(error)
```

```
    })  
  
  }  
  
}  
  
}  
  
}
```

We have created basic MEAN Stack Angular 7 CRUD app, now enter the below command to start your project on the browser.

```
ng serve
```