**Event Management App Documentation**

**Introduction**

The Event Management App is a web application developed using Angular, which allows the admin to view and manage employees' details. The application utilizes Angular as a client-side framework and interacts with a JSON server to perform CRUD (Create, Read, Update, Delete) operations on employee data. The app includes features such as admin login, employee list view, employee creation, deletion, and updating.

**Installation and Setup**

To run the Event Management App locally, follow the steps below:

**Prerequisites**

Node.js and npm should be installed on machine.

**Steps**

Clone the project repository from the GitHub repository:

bash

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git clone <repository\_url>

Navigate to the project directory:

bash

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cd event-management-app

Install the project dependencies using npm:

bash

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npm install

Start the JSON server:

bash

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npm run json-server

In a separate terminal, start the Angular development server:

bash

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ng serve

Open a web browser and access the application at [http://localhost:4200](http://localhost:4200/).

**Project Structure**

The structure of the Event Management App project is organized as follows:

src/ - Contains the application's source code

app/ - Contains the Angular components, services, and models

components/ - Contains the Angular components used in the application

login/ - Contains the login component files

login.component.html - HTML template for the login component

login.component.ts - TypeScript logic for the login component

home/ - Contains the home component files

home.component.html - HTML template for the home component

home.component.ts - TypeScript logic for the home component

models/ - Contains the TypeScript models used in the application

admin.ts - Model representing the admin user

employee.ts - Model representing an employee

services/ - Contains the Angular services used in the application

empser.service.ts - Service for managing employee data and interacting with the JSON server

app.component.html - Main HTML template for the application

assets/ - Contains static assets such as images and stylesheets

index.html - The main HTML file for the application

**Features**

The Event Management App provides the following features:

**Admin Login**: Allows the admin to authenticate by entering a username and password. After logging in, the admin can change their password if needed.

**Home**: Once logged in, the admin is directed to the home page. The home page displays a master list of employee details, including their first name, last name, and email.

**Create Employee**: The admin can create a new employee by providing the required details such as first name, last name, and email. After validation, the new employee is added to the list.

**Update Employee**: The admin can update the details of an existing employee by editing their information and saving the changes.

**Delete Employee**: The admin can delete an employee from the list, permanently removing their details from the database.

**Logout**: Allows the admin to log out of the application, ending the session.

**Data Persistence**

The Event Management App utilizes a JSON server to simulate a temporary database server. The server uses a db.json file, which contains the initial employee data. The JSON server provides RESTful endpoints for performing CRUD operations on the employee data. The endpoints are as follows:

GET /employees: Retrieves all employees

GET /employees/1: Retrieves employee by ID (replace 1 with the desired ID)

POST /employees: Adds a new employee

PUT /employees: Updates an existing employee

DELETE /employees/1: Deletes employee by ID (replace 1 with the desired ID)

**Form Validation**

The Event Management App includes form validation to ensure that the entered data is valid and complete. The following validation rules are applied:

**Admin Login**: The username and password fields are required.

**Create Employee:** All fields (first name, last name, and email) are required.

**Update Employee**: All fields (first name, last name, and email) are required.

If any of the required fields are empty or contain invalid data, the form will display error messages and prevent submission until the issues are resolved.

**Design and Styling**

The application's user interface is built using Angular and Bootstrap. Angular provides the structure and logic for the components, while Bootstrap is used for responsive styling and layout.

**Conclusion**

The Event Management App developed with Angular provides a user-friendly interface for admin users to manage employee data. By utilizing a JSON server, the app allows CRUD operations to be performed on the employee data, ensuring data persistence. With form validation and an intuitive design, the app provides a seamless experience for managing employee details within an organization.