Project name	Weather Dashboard Application

Assignment 1	Project Summary
Course	Multimedia Technologies with Angular and TypeScript - 2023

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1. Short project description (Business needs and system features)

In the era of dynamic weather patterns, having real-time access to weather information is crucial for individuals and businesses alike. The Weather Dashboard Application (WDA) addresses this need by providing a comprehensive platform for users to access current weather conditions, forecasts, and historical data.

Business Needs:

- **Real-Time Weather Information:** Provide users with up-to-date information on temperature, humidity, wind speed, and other relevant weather metrics.
- **User Registration and Preferences:** Implement user registration.

System Features:

To meet the outlined business needs, the Weather Dashboard Application will bedeveloped as follows:

- **Front-End Technology:** Utilize a responsive web design approach, employing technologies such as Angular for the front-end to create an interactive and user-friendly dashboard.
- **Backend Technology:** Develop the backend using Node.js and Express to handle data processing, user authentication
- **Weather API Integration:** Integrate with reliable weather APIs to fetch real-time and forecasted weather data for different locations.
- **User Authentication:** Implement a user authentication system to allow users to register and log in.
- **Saved Locations:** Enable users to save and manage multiple locations,with the ability to quickly switch between them on the dashboard.
- **Notification System:** Implement a notification system to alert users aboutsevere weather conditions or changes in their saved locations.

By combining these features, the Weather Dashboard Application aims to be a comprehensive solution for individuals and businesses seeking reliable and user-centric weather information.

2. Main Use Cases / Scenarios		
Use case name	**Brief Descriptions**	**Actors Involved**
2.1. View Current Weather	Users can access real-time information about currentweather conditions for a selected location.	Anonymous User, RegisteredUser
2.2. Search and Save Location	Users can search for specific locations, view weather, and save preferred locations for quick access.	RegisteredUser
2.3. Register User	New users can register an account to personalize theirweather dashboard and save preferences.	Anonymous User
2.4. Login User	User can log into the system.	Anonymous User
2.5. Add Severe Weather Notification	Administrator can add severe weather notifications.	Administrator

3. Main Views (SPA Frontend)		
View name	**Brief Descriptions**	**URI**
3.1. Home Dashboard	Centralized display providing an overview of current weather conditions for saved locations.	/
3.2. Location Search	Allows users to search for new locations and view detailed weather forecasts before saving them.	/
3.4. User Registration	Presents a view allowing the *Anonymous Users* to register.	/register
3.5. Login	Presents a view allowing the users to login.	/login
3.6 Location	Presents a view with location details	/location

4. API Resources (Node.js Backend)		
View name	**Brief Descriptions**	**URI**
4.1. Register	POST *User Credentials* (e-mail address and password) and create new profile.	/api/register
4.2. Login	POST *User Credentials* (e-mail address and password) and receive a valid *Security Token* to use in subsequent API requests.	/api/login
4.3. Logout	POST a logout request for ending the active session with *OKTS,* and invalidating the issued *Security Token*.	/api/logout
4.4. User Profile	Allows retrieval and modification of user profiledata.	/api/users/profile
4.5. Location Manage ment	Handles saving, updating, and deleting user-savedlocations.	/api/locations