

USE CASE DOCUMENT

Use Case ID	Use Case Name	Description	Actor
UC001	Register/Login	Allows admin to login and users to create a new account or login to an existing account in the Weather Forecasting Application.	Admin, User
UC002	Manage User	Enables admins to manage user accounts and their permissions in the Weather Forecasting Application.	Admin
UC003	View Forecast	Allows users to view the weather forecast for a specific location.	User
UC004	Search Location	Enables users to search for a specific location to view its weather forecast.	User
UC005	Mark Location as Favourite	Allows users to mark a specific location as a favourite for quick access to its weather forecast.	User

Use Case: Register/Login

Description: Allows admin to login and users to create a new account or login to an existing account in the Weather Forecasting Application.

Preconditions: The user has the Weather Forecasting Application.

Postconditions: The user is registered and logged into the application.

Main Flow:

1. The admin and user opens the Weather Forecasting Application.
2. If the user already has an account, they select the login option and provide their credentials (username/email and password).
3. If the user is a new user, they select the register option and provide the required information to create a new account (username, email, password, etc.).
4. The application validates the provided information.
5. If the information is valid, the user is logged in or registered, and the application displays the main interface.
6. If the information is invalid, the application displays an error message and prompts the user to correct the input.

Alternative Flows:

- If the user forgets their password, they can select the "Forgot Password" option and follow the password reset process.

Use Case: Manage User

Description: Enables admins to manage user accounts and their permissions in the Weather Forecasting Application.

Preconditions: The admin is logged into the Weather Forecasting Application.

Postconditions: The user accounts and their permissions are updated.

Main Flow:

1. The admin accesses the user management section in the Weather Forecasting Application.
2. The admin can view a list of registered users.
3. The admin can edit user account information such as username, email, and password.
4. The admin can update user permissions, such as granting or revoking admin privileges.
5. The admin saves the changes made to the user accounts.

Alternative Flows:

- If the admin wants to delete a user account, they can select the "Delete User Account" option and follow the account deletion process.

Use Case: View Forecast

Description: Allows users to view the weather forecast for a specific location.

Preconditions: The user is logged into the Weather Forecasting Application.

Postconditions: The user can view the weather forecast for the selected location.

Main Flow:

1. The user selects the option to view the weather forecast.
2. The application presents a list of available locations or prompts the user to search for a specific location.
3. The user selects a location from the list or searches for a location using relevant parameters (city name, zip code, coordinates, etc.).
4. The application retrieves the weather forecast data for the selected location.
5. The application displays the weather forecast, including temperature, humidity, wind speed, and other relevant weather information, to the user.

Alternative Flows:

- If the location selected by the user is invalid or cannot be found, the application displays an error message and prompts the user to select a valid location.

Use Case: Search Location

Description: Enables users to search for a specific location to view its weather forecast.

Preconditions: The user is logged into the Weather Forecasting Application.

Postconditions: The user can view the weather forecast for the searched location.

Main Flow:

1. The user selects the option to search for a location.
2. The application prompts the user to enter the name, address, or other relevant information about the desired location.
3. The user enters the location information in the provided input field.
4. The application retrieves the weather forecast data for the searched location.

5. The application displays the weather forecast, including temperature, humidity, wind speed, and other relevant weather information, for the searched location.

Alternative Flows:

- If the location entered by the user is invalid or cannot be found, the application displays an error message and prompts the user to enter a valid location.

Use Case: Mark Location as Favourite

Description: Allows users to mark a specific location as a favourite for quick access to its weather forecast.

Preconditions: The user is logged into the Weather Forecasting Application.

Postconditions: The selected location is marked as a favourite for the user.

Main Flow:

1. The user selects the option to mark a location as a favourite.
2. The application presents a list of available locations or prompts the user to search for a specific location.
3. The user selects a location from the list or searches for a location using relevant parameters (city name, zip code, coordinates, etc.).
4. The application adds the selected location to the user's list of favourite locations.
5. The user can now access the weather forecast for the marked favourite location easily.

Alternative Flows:

- If the location selected by the user is already marked as a favourite, the application displays a message indicating that the location is already a favourite.