

# Web Lab3 Report

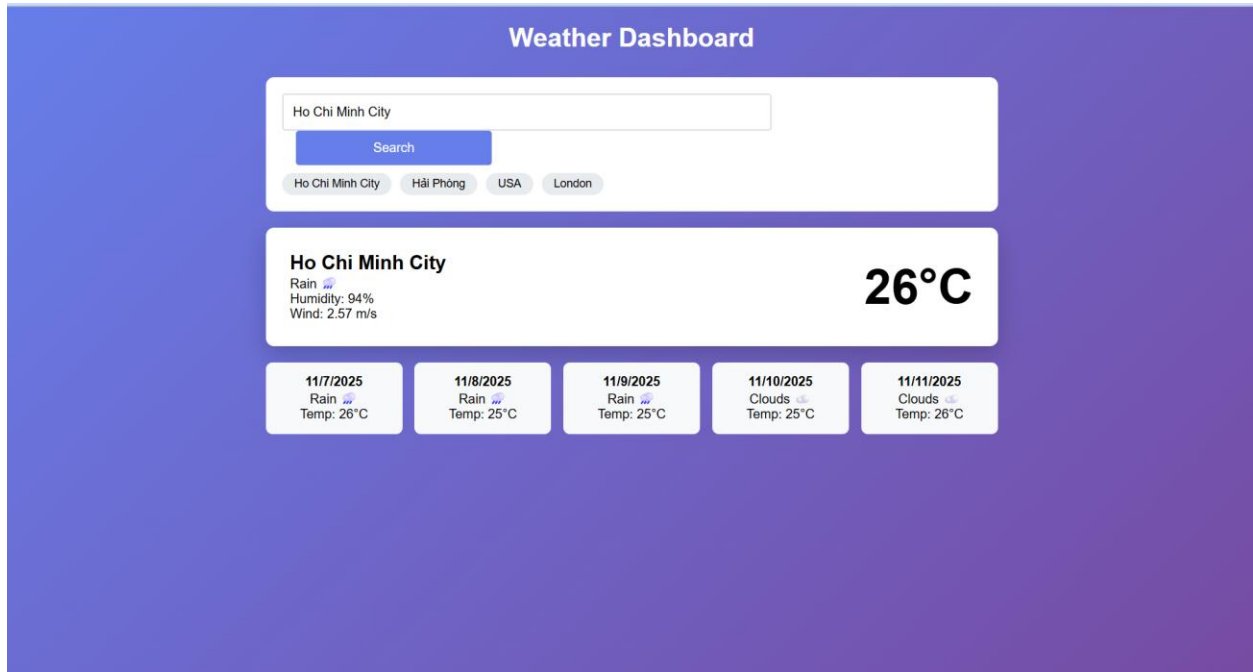
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### Task 2.1:

There are a total of 9 function in this task:

1. `fetchWeather(city)`: Fetches the **current weather** data for the specified city using the OpenWeatherMap API.
2. `fetchForecast(city)`: Fetches the 5-day weather forecast data for the given city.
3. `displayForecast(data)`: Displays a 5-day forecast summary, one for each day (at noon).
4. `displayWeather(data)`: Displays the current weather card for the searched city.
5. `searchWeather()`: Main function that handles user input, calls the APIs, and updates the page.
6. `saveRecentSearch(city)`: Stores the last 5 searched cities in `localStorage` (avoiding duplicates).
7. `loadRecentSearches()`: Loads and displays the list of recently searched cities as clickable buttons.
8. `showError(message)`: Displays an error alert (e.g., invalid city, API issue).

9. `clearError()`: Removes any existing error message before a new search.



## Task 2.2:

There are a total of 8 function in this task:

1. `searchRepositories(query, sort = 'stars', page = 1)`: Fetches repository search results from the GitHub REST API based on the user's query, sort order, and page number.
2. `displayRepositories(repos, append = false)`: Displays the list of repositories on the page, using data returned by the GitHub API.
3. `createRepoCard(repo)`: Generates the HTML structure for displaying an individual GitHub repository's information.

4. `performSearch()`: Main function triggered when a user performs a new search (clicks “Search” or presses Enter).
5. `loadMore()`: Loads the next page of repository search results and appends them below the existing ones.
6. `showError(message)`: Displays an error message inside the red alert box.
7. `clearError()`: Removes any previously shown error message before new operations.
8. `formatNumber(num)`: Formats large numbers (stars and forks) into shortened forms like 1.9k or 5.4M.

