**Weather App Documentation**

**Problem Statement:-**

To deliver a web application which shows the Weather forecast of the coming 7 days starting from the current day based on the location entered by the user.

**Objective:-**

To achieve the desired application by designing a user friendly UI.

**Description:-**  A user wants to get the weather forecast in any city so that he can plan his day according to it. Our web application addresses this need. The web application consists of fields in which the user. enters the location details and the current day details. As per the location details the temperature of that particular day is fetched.

**Requirements:-**

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UI Requirements:-

* JavaScript
* jQuery
* HTML
* CSS
* API
* OpenWeatherMap
* Brackets Editor

Other Requirements:-

* Docker
* GIT
* JENKINS
* JIRA
* Cloud Instance

**Architecture**:-

* The three different Plans with their Pros and Cons are as follow:-

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**Description:-**

The web page consists of a city field, day field and a submit button. Once the user selects the city and day, the temperature of that particular day will be displayed.

**Pros:**

Simple and easy.

**Cons:**

The city entered by the user may be present in other country.

The user may spell the city name incorrectly.

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**Description:-**

The web page consists of country, state, city and day fields. As the user enters the country, state, city and day the user gets to see the weather information that particular day.

**Pros:**

Simple, easily accessible and better than previous version.

The fields are more appropriate and well defined.

Less chance of entering wrong city name.

**Cons:**

The user has to enter all the fields even if he wants to access the current location’s temperature.

The user may be looking for a simple text field to enter the city name.

PLAN C

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**Description:-**

In this layout there will be a suggested search box for the city field. The user can select from the various options available. There is a drop down to select the desired day. The result will be shown in the box.

**Pros:**

Simpler than Plan B

The user doesn’t need to enter the Country name or State name.

Search will be much faster.

**Cons:**

The user may spell the name incorrectly.

The user may not be aware of various places with the same name and this may create a confusion in his mind.

* Other elements in the Architecture

1. Containerization with Docker
2. Interfacing with GIT and JENKINS
3. Pushing to cloud
4. CI and CD

**Recommended Solution:-**

The Plan C will be the most preferred design for this app because of the Search box. The user needs to just enter the city name and the search box will provide different options, that is, it will show all the options of the written city name but located in different areas. This will work much faster and the user doesn’t need to enter various fields.