Software Engineering - IT314

LAB IV

GROUP 32

Group members

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- **Stakeholders**
    - End users
    - Developers
    - Instructor and teaching assistants

- **Actors**
    - End users
        - Environmentalists
        - Health conscious individuals
        - Casual
    - Database and hardware
    - Internet
    - API

- **Use Cases**

1. See details about air quality in a particular city
2. See details about air quality of current location (shared by user)
3. See details about air quality all states in India
4. Compare the air quality of two cities/states
5. See visualizations for a city for this month
6. See health hazards and respective precautions that can be taken in an area
7. See the top polluted states in India
8. See the air quality of metro cities in India

USE CASES

1.

➔ **Name**

– See details about air quality in a particular city
– *Menu - Search - City dashboard*

➔ **Actors**
– End user

➔ **Goal description**
– The end goal is to know the air quality conditions of the city of Ahmedabad

➔ **Pre-conditions**
– Access to internet and internet enabled device(s).

➔ **Description**
– Upon entering the URL in a browser, the user should type the name of the city/location of which they want the data and click enter. The system should then display visualizations and statistics about the air quality for the requested location.

2.
➔ **Name**
– See details about air quality of current location
– *Menu - Home*

➔ **Actors**
– End user

➔ **Goal description**
– The end goal is to know the air quality conditions of their current location

➔ **Pre-conditions**
– Access to internet and internet enabled device(s).
– User should share their location

➔ **Description**

– Upon entering the URL in a browser, the system should display visualizations and statistics about the air quality for the current location.

3.

➔ **Name**

– See details about air quality all states in India

– *Menu - Main dashboard*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to know the air quality conditions of all the states of India

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should click on the main dashboard tab after which the system should display visualizations and statistics about the air quality for the current location.

4.

➔ **Name**

– Compare the air quality of two cities/states

– *Menu - Compare*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to compare the air quality of two cities/states in India

➔ **Reference to requirements**

– Backward traceability

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should click on the compare tab. After that, they should enter the names of the cities/states they want to compare. The system should display the relevant statistics and visualizations.

5.

➔ **Name**

– See visualizations for a city for this month

– *Menu - Search - Visualizations - Add filter*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to see the trend that air quality follows for a time period (here, a month) in a particular city (/state).

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should search for the required city/state . After landing on the city dashboard, they should add a filter for the time period in the required visualization. The system should display the relevant statistics and visualizations.

6.

➔ **Name**

– See health hazards and respective precautions that can be taken in an area

– *Menu - Search - Dos and don’ts*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to see what health hazards exist in an area due to air quality and what precautions can be taken.

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should search for the required city/state . After landing on the city dashboard, they should go to the dos and don’ts section. The system should display the relevant dos and don’ts.

7.

➔ **Name**

– See the top polluted states in India

– *Menu - Main dashboard*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to see which states are the most polluted in India.

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should go to the main dashboard tab. The system should display the relevant visualizations and maps.

8.

➔ **Name**

– See the air quality of metro cities in India

– *Menu - Main dashboard - Top Metro Cities*

➔ **Actors**

– End user

➔ **Goal description**

– The end goal is to see the air quality for the metropolitan cities.

➔ **Pre-conditions**

– Access to internet and internet enabled device(s).

➔ **Description**

– Upon entering the URL in a browser, the user should go to the main dashboard . After landing on the main dashboard, the system should display the relevant visualizations.