Functional requirements

1. User shall query the Sport recommendation System.
    1.1. User must query the System by a specific address or by current location to confirm the departure location.
        1.1.1. Results for a query containing a specific address must report all locations relevant to that address in a drop-down list for the user to choose.
            1.1.1.1. User shall choose a location as the departure location.
            1.1.1.2. User shall report the issue or start another search if no wanted result.
        1.1.2. Results for a query about current location must indicate the user's location as the departure location.
    1.2. The system shall display some useful information for the departure location.
        1.2.1. Google Map shall return a specific map location as a snapshot based on the departure location.
    1.3. User must specify a search radius to determine the user reachable scope.
    1.4. User must choose a preferred mode of transport.
2. The Sportify system shall query the weather APIs to collect the weather information.
    2.1. The Sportify system shall query the 2-hour Weather Forecast API to collect the weather forecast.
    2.2. The Sportify system shall query the Ultraviolet Index (UVI) API to collect the UVI information.
    2.3. The Sportify system shall query the 2-hour Pollutant Standards Index (PSI) API to collect the PSI information.
    2.4. The Sportify system shall query the Air Temperature API to collect the air temperatures (Degree Celsius).
    2.5. The Sportify system shall query the Rainfall API to collect the real-time rainfall level in mm.
3. The System shall display all recommendation results within search radius.
    3.1. The System shall display results sorted by descending order based on final score.
    3.2. The System shall derive the result based on considering factors.
        3.2.1. Factors shall consider weather factors.
            3.2.1.1. Weather factors shall consider rainfall level.
            3.2.1.2. Weather factors shall consider Ultra-violet index (UVI).
            3.2.1.3. Weather factors shall consider Pollutant Standards Index (PSI).
            3.2.1.4. Weather factors shall consider the weather forecast information.
        3.2.2. Factors shall consider vacancy level of sports facilities inside the given radius.
        3.2.3. Factors shall consider distance information of the sports facilities from the departure location using the preferred mode of transport.
    3.3. Each result must display the following recommended information.

3.3.1. Recommended information must contain the name of the sport facility location.

3.3.2. Recommended information must contain the address of the sport facility location.

3.3.3. Recommended information must contain the type of the sport activity.

3.3.4. Recommended information must contain the distance based on the mode of travel.

3.4. Each result must offer a find out more button.

3.5. User shall click the button to see extra information of the recommended result.

3.5.1. The extra information must contain the vacancy of the sport facility location.

3.5.2. The extra information must contain the temperature of the sport facility location.

3.5.3. The extra information must contain whether there would be a thunderstorm of the sport facility location.

3.5.4. The extra information must contain whether there would be rain of the sport facility location.

3.5.5. The extra information must contain the PSI of the sport facility location.

3.5.6. The extra information must contain the UVI of the sport facility location.

3.5.7. The extra information must show the reason why people is suitable to do the recommended sport under such weather condition.