Technical Design Document

Requirement

Company A uses Salesforce and needs a custom LWC built to enhance their system. On a single screen it needs to do three things:

- The component needs to allow users to input an airport name e.g "John F Kennedy
- International" and receive back the IATA code for that airport name, in this example
- "JFK".
- Users also need to be able to do the opposite, enter an IATA code and get an airport name. E.g "JFK" -> "John F Kennedy International"
- Show the local time of the user and the local time at the airport

Approach

1. The Domain of the salesforce org has been changed to make it relatable to me listed below : https://sobsessed-dev-ed.develop.lightning.force.com/
2. App and Lightning Page in Salesforce has been created to host the LWC created.
   i. App Name - Flying High
   ii. Lightning Page name - Flying High
3. Below are the list of classes and Lightning components created to support this functionality
   a. Apex classes
      i. AirportSearchClass.cls
      ii. AirportDetailsTest.cls
      iii. AirportDetailsMockTest.cls
   b. Lightning component
      i. airportDetails.html
      ii. airportDetails.js
      iii. airportDetails.js-meta.xml
4. **airportDetails.html** - displays the component layout with the fields - Airport Name, IATA Code, Local Time and Local Time At the Airport.
5. **airportDetails.js** - handles the actions taken on the html page and executes appropriate functions based on the inputs entered. It calls the methods in the AirportSearchClass to perform the API callouts.
6. **airportDetails.js-meta.xml** - Exposes our component on the targets mentioned.
7. **AirportSearchClass.cls** - Handles the requests coming from the component and performs API callouts and returns response body.
8. **AirportDetailsTest.cls** - Test class for AirportSearchClass

Use Cases

Use Case 1 :

Action - User enters Airport name and clicks on Search button
Result - IATA code and Local Time At The Airport fields populate with the corresponding IATA code and local time of the Airport Name entered.

Use Case 2 :

Action - User enters IATA Code and clicks on Search button
Result - Airport Name and Local Time At The Airport fields populate with the corresponding Airport name and local time of the IATA Code entered.

Use Case 3 :

Action - User enters both IATA Code and Airport Name fields and clicks on Search Button
Result - Users receives an error 'Please enter only one input field to search'

Use Case 4 :

Action - User doesn't enter any field i.e IATA Code or Airport Name fields and clicks on Search Button
Result - Users receives an error 'Please enter the input field to search'

Use Case 5 :

Action - User enters incorrect Airport Name and clicks on Search button
Result - Users receives an error 'Please enter a proper Airport name to search'

Use Case 6 :

Action - User enters incorrect IATA Code and clicks on Search button
Result - Users receives an error 'Please enter a proper IATA Code to search'

Screenshot of the component