QA Assignment

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Requirement Evaluation:

The following requirement has been written down by our website Product Owner (PO):
"Our website users should be able get the flights status of a given flight route by a given date"

a) What questions would you ask to understand the requirement better?

Item	Questions
1.	What are the different search options for checking flight status?
2.	What is the format to display departure and destination airports?
3.	What are the constrains on departure date?
4.	How will the system handle invalid airport destination/date?
5.	What flight status should be displayed? (on time, delayed, cancelled, arrival)
6.	Should the system display real time flight status or historical data?
7.	Where does the flight data come from?
8.	What information should be displayed to the user for flight status?
9.	What information should display to the user in case of no flight found by the search?
10.	Is user authentication required to access the flight status feature?
11.	What error message display to the user in case of invalid input to the fields?
12.	What is the expected response time for retrieving flight status information?
13.	Should the system support multi-language based on geographic location?
14.	Are there any accessibility requirement that needs to follow?

How would you define an appropriate Minimum Viable Product (MVP)?

For the given requirement, the Minimum Viable Product (MVP) would include the most essential features that are needed to meet the core functionality and provide a functional and useful service. The MVP should focus on delivering the basic capability of checking flight status based on given user inputs. The following are the details of MVP for the given requirement:

MVP Features

User Input

a) Users can input departure airports, destination airports and a travel date to view the flight details,

b) Users can input flight number and travel date to view the flight details.

c) System displays a list of flights matching the search criteria, including:

   - Flight number
   - Airline
   - Departure or Arrival times
   - Departure and Destination airports
   - Departure gate number
   - Current status (arrived, ontime, delayed, cancelled)

Backend Integration:
Flight status API should be implemented to fetch real-time data based on user's input.

Flight Information:
Display the the basic information such as flight number, departure time, arrival time, departure and destination airport, gate number and current status.

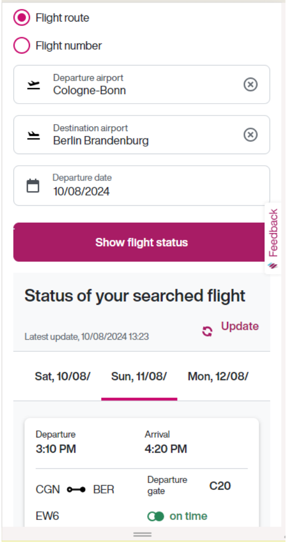
User Interface (UI):
A simple and responsive design that works on web and mobile browsers.

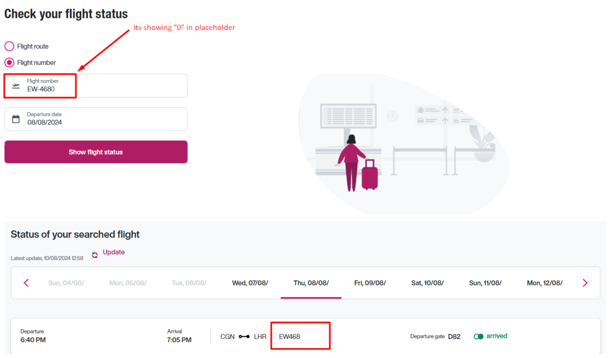
Error Handling:
User-friendly messages to indicate if the search was successful or an error occurred.

b) Please define a set of test cases for the given requirement. Write down any assumptions about the future?

c) Imagine one of those test cases would fail. Please assign to each of your test cases a priority like Showstopper, High, Normal, Low and explain the reason for assignment.

Item	Test Cases	Priority	Reason
1.	Verify that user can retrieve flight status by entering the **Departure airport, Destination airport** and selecting the **Departure date**	Show Stopper	It blocks the user to check flight status
2.	Verify that user can retrieve flight status by entering **Flight number** and selecting the **Departure date**	Show Stopper	It blocks the user to check flight status
3.	Verify that user can view all the flight status, in case of multiple flights on the same route and date	High	It significantly impacts the functionality of system
4.	Verify that the following details display to the user on searching the flight status: **Departure** and **Arrival time, Departure** and **Destination airport, Departure date** and **flight status**	Show Stopper	It significantly impacts the functionality of system
5.	Verify that based on radio button selection for **Flight route** or **Flight number**, the field for flight search status get change	Normal	It affects the functionality but does not prevent usage

6.	Verify that if there is no flight data based on user search, proper message should display to the user	Low	Minimal impact on system’s functionality but increase UX
7.	Verify that all the input fields work as expected **(Flight Route, Flight number, Flight number, Departure airport, Destination airport and Departure time)**	High	Show Stopper - if user is unable to input/select any field
8.	Verify that the “**Show flight status”** only get enabled when all the required field validation passed	Normal	It does not prevent user to view flight status
9.	Verify that the User-Interface (UI) of the flight status feature is as per the given designs (Figma, Adobe xd etc)	Low	In case of slightly UI change than designs
10.	Verify that if the **Flight Status API** is down, system displays correct error message to the user	High	It impacts on functionality and user experience
11.	Verify that the UI/UX of flight status feature is responsive to different browsers and devices (e.g, Mobile browser, Web browsers, Tablets etc)  ● Flight route ○ Flight number Departure airport: Cologne-Bonn Destination airport: Berlin Brandenburg Departure date: 10/08/2024 Show flight status Feedback Status of your searched flight Latest update, 10/08/2024 13:23 Update Sat, 10/08/ Sun, 11/08/ Mon, 12/08/ Departure 3:10 PM Arrival 4:20 PM CGN BER Departure gate C20 EW6 on time	Normal	It may does not prevent the user to use it
12.	Verify that user can retrieve flight status for the past **Departure dates** up-to certain days	High	It block the user to view historic flight details

13.	Verify that user can retrieve flight status for the future **Departure dates** up-to certain days	High	Impacts the system functionality and block the user to view future flight details
14.	Verify that the placeholder in the **Flight number** field box disappears once the user enters the number  Check your flight status Its showing "0" in placeholder ○ Flight route ● Flight number Flight number EW-4680 Departure date 08/08/2024 Show flight status Status of your searched flight Latest update, 10/08/2024 12:58 Update Sun, 04/08/ Mon, 05/08/ Tue, 06/08/ Wed, 07/08/ Thu, 08/08/ Fri, 09/08/ Sat, 10/08/ Sun, 11/08/ Mon, 12/08/ Departure 6:40 PM Arrival 7:05 PM CGN LHR EW468 Departure gate D82 arrived	Low	FAILED Minor User experience Issue
15.	Verify that the response time to fetch the flight status is quick	High	It impacts application performance and user-experience
16.	Verify that user can click on the **"Update"** button to fetch the updated flight status details	High	Impacts functionality
17.	Verify the error handling in case of invalid departure airport	Low	UI improvement
18.	Verify the error handling in case of invalid destination airport	Low	UI improvement
19.	Verify the error handling in case of invalid departure date	Low	UI improvement
20.	Verify the error handling in case of invalid flight number	Low	UI improvement

d) What types of testing can be done for this requirement?

- Functional Testing
- Smoke Testing
- Sanity Testing
- Regression Testing
- End to End Testing
- Usability Testing
- API Integration Testing
- System Testing
- Non-Functional Testing
    - Performance Testing
    - Compatibility Testing
    - Accessibility Testing
- Cross-browser Testing
- Localization Testing

e) What would you define as an exit criteria for testing this requirement?

Search Functionality:

- User must be able to successfully search flight status based on flight route and travel date.
- User must be able to successfully search flight status through flight number and travel date.

Flight Status:

- The system must retrieve and displays the status of flights for the given route (departure and arrival airports) and date.
- The flight details must include flight number, departure and arrival times, gate number and current status.

User Interface:

- The user interface must be fully responsive and works correctly across different devices including desktops and smartphones.

Error Handling:

- The system appropriately handles cases where no flights are found, the data is unavailable, or invalid inputs are provided.