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Assignment #3

Airline Information System - User Testing Manual

**1. Testing Steps**

Accessing the System

1. Open the application in your web browser

2. Verify the main interface loads with four tabs:

By Country, By Airline, By Airport, and By Route

Testing Country Search

1. Click on the "By Country" tab

2. Type a country name in the search box (e.g., "Ind")

3. Verify country buttons appear as you type

4. Click on a country button

5. Verify both Airlines and Airports tabs display data

6. Test switching between Airlines and Airports tabs

7. Verify the Clear button becomes enabled and clears results when clicked

Testing Airline Search

1. Click on the "By Airline" tab

2. Enter an airline code (e.g., "AI" for IATA or "AIC" for ICAO)

3. Select the appropriate code type (IATA/ICAO), else the UI should throw error

4. Click Search

5. Verify airline details and routes appear

6. Test the Clear button functionality

Testing Airport Search

1. Click on the "By Airport" tab

2. Enter an airport code (e.g., "DEL" for IATA or "VIDP" for ICAO)

3. Select the appropriate code type (IATA/ICAO), else the UI should throw error

4. Click Search

5. Verify airport details and departing routes appear

6. Test the Clear button functionality

Testing Route Search

1. Click on the "By Route" tab

2. Enter departure and arrival IATA codes (e.g., "ASF" and "KZN")

3. If the code is/are wrong, the UI should throw error

4. Click Search

5. Verify route details and operating airlines appear

6. Test the Clear button functionality

**2. Additional Features and Rationale**

Real-time Search Filtering

Feature: Country search results update as you type

Rationale: Improves user experience by providing immediate feedback and reducing search time

Clear Functionality

Feature: Each search section has a Clear button that becomes enabled when data is present

Rationale: Enhances usability by allowing users to quickly reset searches without refreshing the page

Responsive Table Heights

Feature: Tables automatically adjust height based on content

Rationale: Optimizes screen space usage and improves readability of search results

Sticky Table Headers

Feature: Table headers remain visible when scrolling through results

Rationale: Maintains context when viewing large datasets, improving data comprehension

Detailed Information Display

Feature: Comprehensive information for airlines, airports, and routes

Rationale: Provides users with complete data for analysis and decision-making

Input Validation

Feature: Validates input formats (e.g., IATA code length)

Rationale: Prevents errors and improves data quality by ensuring proper search parameters

Tabbed Interface

Feature: Organized content into intuitive tabs

Rationale: Improves navigation and reduces cognitive load by separating different search functionalities

**3. Testing Tips**

- Test with both valid and invalid inputs to verify error handling

- Verify that tables correctly display "No data found" messages when appropriate

- Test the responsive design by resizing your browser window

- Verify that all clear buttons correctly reset their respective sections

- Test tab navigation to ensure proper content switching

- Verify that search results are displayed in a readable format with proper scrolling