Изображение выглядит как текст, комната, казино

Автоматически созданное описание Software Quality Assurance and Testing

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Selenium Advanced Testing

**Assignment Objective**

This report outlines the implementation and results of advanced Selenium WebDriver testing techniques as required in the assignment. The tests were performed using the **Blaze Demo** flight booking application, covering:

1. **Wait Strategies**: Implicit, Explicit, and Fluent waits.
2. **ActionChains**: Advanced user interactions.
3. **Select Class**: Dropdown handling.
4. **Test Reporting**: Observations and test conclusions.

**Test Results**

**1. Wait Strategies (wait.py)**

**Objective**

To demonstrate different synchronization techniques using implicit, explicit, and fluent waits.

**Implementation**

* **Implicit Wait**: Set a global wait time of 10 seconds for element detection.
* **Explicit Wait**: Used to wait specifically for the search results' title to load.
* **Fluent Wait**: Continuously polled for the first flight selection button, with a timeout of 15 seconds.

**Results**

* **Success**: All wait types were successfully implemented.
* The search results were verified with the title: "Flights from Paris to Buenos Aires:".
* Fluent wait successfully identified and interacted with the flight selection button.

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A screenshot of a computer program

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Results

**2. ActionChains (action\_class.py)**

**Objective**

To perform advanced user interactions like hover, click, double-click, right-click, and drag-and-drop.

**Implementation**

* Hovered over the "Find Flights" button.
* Clicked the button using ActionChains.
* Simulated double-click and right-click on a button.

**Results**

* **Success**: Hover, click, double-click, and right-click actions were executed without issues.
* **Note**: Drag-and-drop skipped as draggable elements were not present in the application.

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Find Flights

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Double Click

A screen shot of a computer program

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Results

**3. Select Class (select\_class.py)**

**Objective**

To interact with dropdown elements for selecting departure and destination cities.

**Implementation**

* Located dropdowns for departure (fromPort) and destination (toPort) cities.
* Used the Select class to select "Boston" as the departure and "London" as the destination.
* Verified the selected values and search results.

**Results**

* **Success**: Correct dropdown values were selected and verified.
* Search results title was successfully validated: "Flights from Boston to London:".

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IInitial Departure and Destination City

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Departure and Destination City after Selection

A screen shot of a computer

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Results

**Challenges and Solutions**

* **Stale Element Reference**: Encountered during ActionChains tests. Resolved by re-locating elements before performing actions.
* **Drag-and-Drop**: Not applicable due to the absence of draggable elements in Blaze Demo. Skipped this step while maintaining test logic.

**Test Observations**

1. **Waits**:
   * Implicit waits are useful for general synchronization but lack specificity.
   * Explicit and Fluent waits provide precise control, ensuring reliable interactions with dynamic elements.
2. **ActionChains**:
   * Proved effective for simulating user actions, especially for hover and context menu interactions.
3. **Select Class**:
   * Simplified dropdown handling with easy selection by visible text and validation of selected values.

**Conclusion**

The assignment successfully demonstrated advanced Selenium WebDriver techniques using Blaze Demo. Each requirement was implemented, and the expected results were achieved.

**Test Coverage**

|  |  |  |
| --- | --- | --- |
| Test Case | Status | Remarks |
| Implicit, Explicit, Fluent Waits | Success | Handled all waits and verified the search results. |
| ActionChains | Success | Simulated hover, click, double-click, and right-click. |
| Select Class | Success | Correct dropdown selections and validations performed. |