1. Test Plan: Rent a Car Functionality on <https://www.lyft.com/rider/rentals>.

1. Introduction:

* Brief overview of the "Rent a Car" functionality.
* Purpose of the test plan.
* Scope of testing (specific pages, features, and browsers/devices).

2. Test Objectives:

* Verify the end-to-end functionality, usability, and reliability of the "Rent a Car" feature.
* Ensure accurate handling of pick-up and drop-off locations, rental dates, and booking process.
* Validate the integration with the calendar, the booking process, and the car listing page.
* Check for proper error handling, user feedback, and sorting/filtering options.

3. Test Environment:

* List of supported browsers (Chrome, Firefox, Safari, etc.).
* Supported devices (desktop, mobile, tablet).
* Testing tools (e.g., Selenium, TestNG, JUnit).
* Test data (sample locations, rental dates, valid/invalid inputs).

4. Test Scenarios:

4.1 Location and Date Entry:

* Verify entering a valid pick-up location and a valid drop-off location.
* Test entering an invalid pick-up location and verifying error handling.
* Test entering an invalid drop-off location and verifying error handling.
* Test entering valid pick-up and drop-off locations, then selecting valid rental dates from the calendar.

4.2 Rent a Car Button:

* Verify that the "Rent a Car" button is clickable after providing valid location and dates.
* Test clicking the button with missing or incomplete information and validate error messages.

4.3 Car Listing Page:

* Verify redirection to the car listing page after successful booking initiation.
* Check that available cars are categorized as economy, mid-size, and sedan.
* Validate that each car type displays corresponding prices.
* Ensure car details (make, model) are shown for each option.
* Test filtering cars by price, type, or features and verify the results.
* Test sorting cars by price and verify the results.

4.4 Cross-Browser and Cross-Device Testing:

* Execute tests on different browsers and devices to ensure consistent functionality.
* Check for responsiveness and layout issues on various screen sizes.

4.5 Performance and Load Testing:

* Test the performance of loading the car listing page with a reasonable number of cars.
* Measure response times when filtering or sorting the car list.
* Validate that the system can handle the load without crashes or slowdowns.

5. Test Data and Environment Preparation:

* Set up the test environment with the required configurations and data.
* Create test data sets for different scenarios.
* Prepare scripts for automated tests if applicable.

6. Test Execution:

* Execute manual and automated tests according to the test scenarios.
* Log test results, including any defects or issues encountered.
* Gather screenshots or recordings as evidence of test outcomes.

7. Defect Reporting:

* Document any defects found during testing.
* Include detailed steps to reproduce each defect.
* Assign severity and priority levels to each defect.

8. Test Summary and Reporting:

* Summarize the test results, including the number of tests executed, passed, and failed.
* Provide insights into the overall quality of the "Rent a Car" feature.
* Generate a test report containing the executed test cases, results, and defects.

9. Conclusion:

* Evaluate whether the "Rent a Car" feature meets the acceptance criteria.
* Assess the readiness of the feature for release based on test results.

Remember to adjust this test plan according to your specific project requirements, and feel free to add more detailed test cases and steps if needed.

2. Describe in details at least 2 the most critical scenarios (1 positive and 1 negative) to test “Rent a car” form functionality of https://www.lyft.com/rider/rentals.

**Test Case 1: Positive Scenario - Entering Pickup Location and Dates**

Test ID TC001

Test Objective To verify that users can successfully enter a valid pickup location and select appropriate rental dates.

Preconditions User is on the Lyft "Rentals" page.

Test Steps

1. Enter a valid pickup location in the "Pick-up Location" search bar.
2. Verify that location suggestions or autocomplete options are displayed as the user types.
3. Select a valid pickup location from the suggestions.
4. Enter a valid drop-off location in the "Drop-off Location" search bar.
5. Verify that location suggestions or autocomplete options are displayed for the drop-off location.
6. Select a valid drop-off location from the suggestions.
7. Click on the "Rental Dates" field to open the calendar.
8. Select a valid pickup date and a valid drop-off date from the calendar.
9. Verify that the selected dates are accurately displayed in the input fields.
10. Proceed by clicking the "Rent a Car" button.

| Expected Results | The user should be able to successfully enter valid pickup and drop-off locations, select proper rental dates, and proceed to the next step of the booking process. |

**Test Case 2: Negative Scenario - Invalid Pickup Location and Dates**

Test ID TC002

Test Objective To verify that appropriate error handling occurs when users provide invalid pickup location and dates.

Preconditions User is on the Lyft "Rentals" page.

Test Steps

1. Enter an invalid pickup location (e.g., gibberish text) in the "Pick-up Location" search bar.
2. Verify that no location suggestions are displayed.
3. Attempt to submit the form with the invalid pickup location.
4. Verify that an error message is displayed, indicating that the pickup location is required or invalid.
5. Enter a valid pickup location and then enter an invalid drop-off location (e.g., gibberish text) in the "Drop-off Location" search bar.
6. Attempt to submit the form with the invalid drop-off location.
7. Verify that an error message is displayed, indicating that the drop-off location is required or invalid.
8. Enter valid pickup and drop-off locations.
9. Click on the "Rental Dates" field and select invalid dates from the calendar (e.g., past dates).
10. Verify that an error message is displayed, indicating that valid rental dates are required.
11. Select valid pickup and drop-off dates from the calendar.
12. Verify that the selected dates are accurately displayed in the input fields.
13. Proceed by clicking the "Rent a Car" button.

| Expected Results | The user should receive appropriate error messages for invalid inputs and should be guided to provide correct pickup location and valid rental dates before proceeding. |