Test Automation Using Playwright + TypeScript of a Web Form For User Profile Creation

This report aims to present the results obtained from running automated tests based on test cases designed for exploratory testing of the user profile creation form at https://playwright-lab.web.app/. The main objective is to evaluate whether the form aligns with the user story specifications used during its implementation.

- **General Overview of Test Results**

The automated tests were executed using Playwright's capability to run on both Firefox and Chrome browsers. As shown in the table below, which details the actual behavior of each test case, test cases TC013, TC016, and TC018 failed during automation. Notably, during exploratory testing, TC013 and TC016 had previously passed, highlighting potential differences between manual and automated testing outcomes.

The data used to implement these test cases was carefully designed to ensure consistency, with each data entry appropriately fitting to its corresponding test case.

Test Case ID	Description	Expected Result	Actual Result	Status
TC001	Submit the form without any entries (blank form submission	Error messages for all mandatory fields: First Name, Last Name, Email, Password, and Confirm Password should be displayed	No error was displayed in the terminal	Passed
TC002	Test for valid first name entry (alphabetical	The first name should be accepted as a valid	No error was displayed in the terminal	Passed

Test Case ID	Description	Expected Result	Actual Result	Status
	characters only)	First Name entry.		
TC003	Test for invalid first name entry (non-alphabetical characters)	An error message should be displayed indicating only alphabetical characters are allowed.	The error message "This field must contain only letters" was displayed in the terminal.	Passed
TC004	Test for valid last name entry (alphabetical characters only)	Last name should be accepted as a valid Last Name entry.	No error was displayed in the terminal	Passed
TC005	Test for invalid last name entry (non-alphabetical characters)	An error message should be displayed indicating only alphabetical characters are allowed.	Error message "This field must contain only letters" was displayed in the terminal	Passed
TC006	Test for valid email address entry	The email should be accepted and validated correctly without any error displayed on the screen.	No error was displayed in the terminal	Passed
TC007	Test for invalid email address entry	An error message should appear stating that the email is not valid.	Error message "Email is not valid" was displayed in the terminal.	Passed

Test Case ID	Description	Expected Result	Actual Result	Status
TC008	Test for valid password entry (accepting alphanumeric characters and symbols)	Password should be accepted as a valid password.	No error was displayed in the terminal	Passed
TC009	Test for password mismatch in "Confirm Password" field	An error message should appear stating that the passwords do not match.	Error message "The password fields must match" was displayed in the terminal	Passed
TC010	Test submitting the form without filling any of the optional fields.	The form should be successfully submitted without errors or warnings since all mandatory fields are filled. Optional fields remain blank.	No error was displayed in the terminal.	Passed
TC011	Test for valid gender selection	The gender selection should be accepted without any errors displayed.	No error was displayed in the terminal	Passed
TC012	Test for valid phone number entry (accepting only numeric	The phone number should be accepted without any error	No error was displayed in the terminal	Passed

Test Case ID	Description	Expected Result	Actual Result	Status
	characters with a maximum length of 10)	display.		
TC013	Test for invalid phone number entry (more than 10 digits or not accepting alphabetical characters or symbols)	An error message should be displayed indicating the phone number is invalid.	No error was displayed in the terminal	Failed
TC014	Test for valid address entry (accepting alphanumeric characters and symbols)	Address should be accepted as a valid address.	No error was displayed in the terminal	Passed
TC015	Test for valid LinkedIn URL entry	The LinkedIn URL should be accepted without any error display.	No error was displayed in the terminal	Passed
TC016	Test for an invalid LinkedIn URL entry	An error message should be displayed indicating an invalid LinkedIn profile URL.	No error was displayed in the terminal	Failed
TC017	Test for valid Github URL entry	The Github URL should be accepted without any error display.	No error was displayed in the terminal	Passed

Test Case ID	Description	Expected Result	Actual Result	Status
TC018	Test for an invalid Github URL entry	An error message should be displayed indicating an invalid Github profile URL.	No error was displayed in the terminal	Failed
TC020	Test for submitting the web form with all input fields filled.	The form should be successfully submitted without errors, and the user should receive a confirmation of submission.	No error was displayed in the terminal	Passed

- **Bug Report**

This section provides a detailed table summarizing all issues identified during the automated testing with Playwright, based on the previously designed test cases from the exploratory testing phase, providing comprehensive information about each bug. The bug table highlights issues in the functionality of the User Profile Creation web form, providing developers with clear guidance on where the problems have been identified. This enables quick resolution of the issues and allows for timely updates to the bug statuses in the table.

Bug ID	Description	Expected Result	Actual Result	Severity	Status	Comments
BUG001	LinkedIn URL input field accepts invalid URLs	An error message should be displayed	The LinkedIn URL input field accepted the invalid	**High**	Open	The validation logic for LinkedIn URLs should be updated to check for the

Bug ID	Description	Expected Result	Actual Result	Severity	Status	Comments
		indicating an invalid LinkedIn profile URL.	Linkedin URLs and no error message was displayed in the terminal			correct format given by https://www.linkedin.com/in/<profile-identifier>.
BUG002	Github URL input field accepts invalid URL	An error message should be displayed indicating an invalid Github profile URL.	The Github URL input field accepted the invalid Github URLs and no error message was displayed in the terminal	**High**	Open	The validation logic for Github URLs should be updated to check for the correct format given by https://github.com/<profile-identifier>.
BUG003	Phone Number input field accepts invalid Phone number	An error message should be displayed indicating an invalid phone number	The Phone Number field accepted the invalid invalid phone number and no error message was displayed in the terminal	**High**	Open	The validation logic for Phone Number should be updated to handle the correct format properly.