

AT PROJECT 1

Table of Contents

1. Test Case Overview
2. Scope
3. Testing approach
4. Test environment
5. Test Cases
 - Login Test Cases
 - TC_Login_01
 - TC_Login_02
 - PIM Tests Cases
 - TC_PIM_01
 - TC_PIM_02
 - TC_PIM_03
6. Conclusion

Test Case Overview

The purpose of this document is to outline the testing strategy and specific test cases for the Selenium automation testing project - **AT_Project_1**. This project focuses on validating the core functionalities of a web application, specifically user authentication and employee management features like adding a new employee, editing the existing employee details and deleting an employee.

Scope

The scope of testing includes:

- **User Login Functionality:** Ensuring that users can log in with valid credentials and receive appropriate error messages for invalid attempts.
- **Employee Management Operations:** Verifying the addition, editing, and deletion of employee records within the application.

Testing Approach

The testing approach follows a structured methodology:

1. **Test Case Design:** Test cases are designed to cover both positive and negative scenarios, ensuring comprehensive coverage of functionalities.
2. **Automation:** Tests are automated using Selenium WebDriver, allowing for efficient execution and reporting.
3. **Data-Driven Testing:** Test cases leverage data from an Excel file, enabling multiple iterations of tests with varying input values.

Test Environment

- **Application Under Test:** The target web application is hosted at a specified URL.
- **Testing Tools:** The testing framework used is Pytest, with Selenium for browser automation and OpenPyXL for Excel file manipulation.

- **System Requirements:** Ensure that the environment has Python, necessary libraries (Selenium, OpenPyXL, etc.), and a compatible web browser.

Test Cases

Login Tests

Test Case 1: test_tc_login_01

- **Description:** Verify login functionality with valid credentials.
- **Prerequisites:**
 - Valid username and password stored in Excel.
 - The application is accessible.
- **Test Steps:**
 - Launch the application.
 - Navigate to the login page.
 - Input the valid username and password.
 - Click the "Login" button.
- **Expected Result:**
 - The user should be redirected to the dashboard.
 - Success message written to the Excel file: "The user is logged in successfully."

Test Case 2: test_tc_login_02

- **Description:** Verify login functionality with invalid credentials.
- **Prerequisites:**
 - Invalid username and password stored in Excel.
 - The application is accessible.

- **Test Steps:**
 - Launch the application.
 - Navigate to the login page.
 - Input the invalid username and password.
 - Click the "Login" button.
- **Expected Result:**
 - An error message should be displayed: "Invalid credentials."
 - Error message written to the Excel file.

Employee Management Tests

Test Case 3: test_TC_PIM_01

- **Description:** Verify the ability to add a new employee.
- **Prerequisites:**
 - User must be logged in.
 - Necessary employee details stored in Excel.
- **Test Steps:**
 - Navigate to the PIM section.
 - Click the "Add" button.
 - Enter the first name, middle name, and last name.
 - Click the "Save" button.
- **Expected Result:**
 - A success toast message should be displayed: "Successfully Saved."
 - Success message written to the Excel file.

Test Case 4: test_TC_PIM_02

- **Description:** Verify the ability to edit employee details.
- **Prerequisites:**
 - User must be logged in.
 - Employee ID of an existing employee must be available.
- **Test Steps:**
 - Navigate to the PIM section.
 - Search for the employee using their ID.
 - Click the "Edit" button.
 - Update the required details.
 - Click the "Save" button.
- **Expected Result:**
 - A success toast message should be displayed: "Successfully Updated."
 - Successfully updated toast message written to the Excel file.

Test Case 5: test_TC_PIM_03

- **Description:** Verify the ability to delete an employee.
- **Prerequisites:**
 - User must be logged in.
 - Employee ID of an existing employee must be available.
- **Test Steps:**
 - Navigate to the PIM section.
 - Search for the employee using their ID.
 - Click the "Delete" button.
 - Confirm deletion.

- **Expected Result:**

- A successfully deleted toast message should be displayed: "Successfully Deleted."
- Success message written to the Excel file.

Conclusion:

This test case document provides a comprehensive overview of the tests designed to validate the login and employee management functionalities of the application. Each test case is structured to ensure clear understanding and ease of execution.