

Test Plan for WebUI Automation: User Login (Student/Teacher)

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Objective

To ensure that the login functionality for students and teachers works correctly, validating user credentials and roles.

Scope

- Testing login with valid and invalid credentials.
- Verifying role-based login (Student/Teacher) determined by backend.
- Ensuring proper error messages are displayed for invalid login attempts.

Test Cases

Test Case 1: Successful Login with Valid Student Credentials

TC ID: TC001

TC Name: Successful Login with Valid Student Credentials

Precondition: A student account exists with valid credentials.

Input Data:

- Username: valid_student_username
- Password: valid_student_password

Steps:

1. Navigate to the login page.
2. Enter the valid student username.
3. Enter the corresponding valid password.
4. Click the "Login" button.

Post Condition: User is logged in as a student.

Expected Outcome: User is successfully logged in and redirected to the student dashboard.

Test Case 2: Successful Login with Valid Teacher Credentials

TC ID: TC002

TC Name: Successful Login with Valid Teacher Credentials

Precondition: A teacher account exists with valid credentials.

Input Data:

- Username: valid_teacher_username
- Password: valid_teacher_password

Steps:

1. Navigate to the login page.
2. Enter the valid teacher username.
3. Enter the corresponding valid password.
4. Click the "Login" button.

Post Condition: User is logged in as a teacher.

Expected Outcome: User is successfully logged in and redirected to the teacher dashboard.

Test Case 3: Login with Invalid Username

TC ID: TC003

TC Name: Login with Invalid Username

Precondition: An account with the entered username does not exist.

Input Data:

- Username: invalid_username
- Password: any_password

Steps:

1. Navigate to the login page.
2. Enter the invalid username.
3. Enter any password.
4. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: An error message "Invalid username or password" is displayed.

Test Case 4: Login with Invalid Password

TC ID: TC004

TC Name: Login with Invalid Password

Precondition: An account with the entered username exists.

Input Data:

- Username: valid_username
- Password: invalid_password

Steps:

1. Navigate to the login page.
2. Enter the valid username.
3. Enter the invalid password.
4. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: An error message "Invalid username or password" is displayed.

Test Case 5: Login with Empty Username

TC ID: TC005

TC Name: Login with Empty Username

Precondition: None.

Input Data:

- Username: (empty)
- Password: any_password

Steps:

1. Navigate to the login page.
2. Leave the username field empty.
3. Enter any password.
4. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: An error message "Username is required" is displayed.

Test Case 6: Login with Empty Password

TC ID: TC006

TC Name: Login with Empty Password

Precondition: None.

Input Data:

- Username: any_username
- Password: (empty)

Steps:

1. Navigate to the login page.

2. Enter any username.
3. Leave the password field empty.
4. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: An error message "Password is required" is displayed.

Test Case 7: Login with Empty Username and Password

TC ID: TC007

TC Name: Login with Empty Username and Password

Precondition: None.

Input Data:

- Username: (empty)
- Password: (empty)

Steps:

1. Navigate to the login page.
2. Leave both username and password fields empty.
3. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: Error messages "Username is required" and "Password is required" are displayed.

Test Case 8: Login with Correct Credentials but Backend Role Mismatch

TC ID: TC008

TC Name: Login with Correct Credentials but Backend Role Mismatch

Precondition: A valid user account exists.

Input Data:

- Username: valid_username
- Password: valid_password

Steps:

1. Navigate to the login page.
2. Enter the valid username.
3. Enter the corresponding valid password.
4. Click the "Login" button.

Post Condition: User is not logged in or is not redirected to the correct dashboard.

Expected Outcome: Appropriate error handling for role mismatch, such as an error message or redirection to an error page.

Test Case 9: Case Sensitivity in Username and Password

TC ID: TC009

TC Name: Case Sensitivity in Username and Password

Precondition: A valid user account exists with a specific case-sensitive username and password.

Input Data:

- Username: valid_username (with incorrect casing)
- Password: valid_password (with incorrect casing)

Steps:

1. Navigate to the login page.
2. Enter the username with incorrect casing.
3. Enter the password with incorrect casing.
4. Click the "Login" button.

Post Condition: User is not logged in.

Expected Outcome: An error message "Invalid username or password" is displayed.

Test Case 10: Remember Me Functionality

TC ID: TC010

TC Name: Remember Me Functionality

Precondition: A valid user account exists.

Input Data:

- Username: valid_username
- Password: valid_password

Steps:

1. Navigate to the login page.
2. Enter the valid username and password.
3. Check the "Remember Me" checkbox.
4. Click the "Login" button.
5. Close the browser and reopen the login page.

Post Condition: The username field is pre-filled with the user's credentials.

Expected Outcome: The username field is pre-filled with the user's credentials.