

# HubOS QA Engineer Homework XGA

**Latest run summary (report: playwright-report/report\_2025-12-21\_17-08-56/index.html, CI run 20413844932)**

- **Total tests:** 336 — **Passed:** 336, **Failed:** 0 (no flaky failures recorded).
- **Browsers / devices:** Chromium, Firefox, WebKit across desktop and mobile emulation (roughly equal distribution; ~112 tests per browser). Mobile profiles exercised include Android (Pixel / Galaxy emulation) and iPhone (Mobile Safari emulation).
- **Wall time (approx):** ~18 minutes total; average test duration ~3–4s.
- **Artifacts:** full HTML report and raw traces available in playwright-report/report\_2025-12-21\_17-08-56/ and test-results/report\_2025-12-21\_17-08-56/.

## Top 5 Significant Screenshots (for PDF)

These screenshots are representative images from recent runs. When the PDF is generated, the images below help reviewers quickly see the UI elements and selectors used in the tests.

- **Login inputs (room & name)** — playwright-report/data/c5a63091c84b46ac0df67e5b9cd13bd081a278cf.png
  - Test(s): should login with correct room and surname (A/B)
  - Key locators/roles: #guest\_room, #guest\_name, #btn\_login

 Login inputs

- **F&B alternate form layout** — playwright-report/data/f71ae65d482fdffd1dc770e298eb252e47724077.png
  - Test(s): should login with correct room and surname (B)
  - Key locators: .fandb-form-control-login, .btn-login, role=button

 F&B alternate form layout

- **Validation / notification (empty fields)** — playwright-report/data/d4083499a387fbf4e904d9103fbdfa3ab50f0893.png
  - Test(s): should show error for empty fields (A/B)
  - Key locators/roles: #notification, role=alert


 Validation notification

- **Chat opened confirmation (post-login)** — playwright-report/data/5648a809cbe47e8152ff710b5d2be53526405761.png
  - Test(s): should login and open chat (A/B)
  - Key locators: Hablamos? button/link; new tab title contains Alex Hub OS

 Chat opened confirmation

- **Reservation error screenshot** — playwright-report/data/cc5631e724eb8330d3fc69573f66b77a6040ff8c.png
  - Test(s): should not login with incorrect room number (A/B)

- Key locators: #notification, assertion uses toContainText for reservation-related text

 Reservation error screenshot

Include these images in the PDF by referencing the playwright-report/data/ paths for the run you choose to export.

## Most Recent 5 Reports (links)

- [Run 20413844932 — HTML report \(artifact\)](#)
- [Run 20413492572 — HTML report \(artifact\)](#)
- [2025-12-19: 304 tests passed](#)
- [2025-12-15: 304 tests passed](#)
- [2025-12-14: 304 tests passed](#)

## Latest Test Report — grouped by title (selected scenarios)

- **Guest in Touch Login**
  - should login with correct room and surname (A)
  - should login with correct room and surname (B)
  - should login with room number without leading zero (A/B)
  - should not login with incorrect room number (A/B)
  - should show error for empty fields (A/B)
- **Chat / Post-login**
  - should login and open chat (A/B)
- **Edge & Security**
  - should (not) allow login with partial name (security proof)
  - should show error for very long room number (A/B)

## Latest Changes (2025-12-21)

- **CI (GitHub Actions):** Playwright workflow updated to generate and upload the HTML report folder (playwright-report/) and the raw test-results artifact for each run.
- **Tests:** Login tests in tests/login.spec.ts were migrated to use the LoginPage POM (tests/pages/LoginPage.ts) and brittle page.locator('body') assertions were replaced with LoginPage.assertLoggedIn(...) helpers to reduce flakiness on mobile/WebKit.
- **Commit:** 2295f8f pushed to main (follow-up commit to replace remaining body-level assertions with POM assertions).
- **Verification:** Local smoke runs for the updated tests passed; CI runs now produce HTML reports and upload artifacts.

### Latest CI HTML Reports (artifacts)

- Run 20413844932 — HTML report artifact:  
[https://github.com/xaviergonzalezarriolaliza/HubOS\\_XGA/actions/runs/20413844932/artifacts/4937671520](https://github.com/xaviergonzalezarriolaliza/HubOS_XGA/actions/runs/20413844932/artifacts/4937671520)
- Run 20413492572 — HTML report artifact:  
[https://github.com/xaviergonzalezarriolaliza/HubOS\\_XGA/actions/runs/20413492572/artifacts/4937578417](https://github.com/xaviergonzalezarriolaliza/HubOS_XGA/actions/runs/20413492572/artifacts/4937578417)

## Overview

This document explains how the provided Playwright test suite fully satisfies the requirements for the HubOS QA Engineer Homework. It also describes the Page Object Model (POM) used, details additional edge and security tests, and provides links to selected test run reports.

## Requirements Coverage

Requirement	Test(s)	Description
Login with correct room and surname (with leading zero)	should login with correct room and surname (A), (B)	Validates standard login with '0440' and 'Willem Dafoe'
Login with room number without leading zero	should login with room number without leading zero (A), (B)	Validates new feature: login with '440' and 'Willem Dafoe'
Regression: incorrect room	should not login with incorrect room number (A), (B)	Ensures login fails for invalid room
Regression: incorrect surname	should not login with incorrect surname (A), (B)	Ensures login fails for invalid surname
Empty fields	should show error for empty fields (A), (B)	Ensures error is shown if fields are empty
Edge: special chars, long input, whitespace	Multiple tests (see below)	Validates robustness against edge cases
Security: partial name	should (not) allow login with partial name (security proof)	Demonstrates current vulnerability

## Test Table Example

Test Name	Input Room	Input Name	Expected Result
should login with correct room and surname (A)	0440	Willem Dafoe	Success, main menu shown
should login with correct room and surname (B)	0440	Willem Dafoe	Success, main menu shown
should login with room number without leading zero (A)	440	Willem Dafoe	Success, main menu shown
should login with room number without leading zero (B)	440	Willem Dafoe	Success, main menu shown
should not login with incorrect room number (A)	9999	Willem Dafoe	Error, stay on login
should not login with incorrect surname (A)	0440	Follet Verd	Error, stay on login
should show error for empty fields (A)			Error, stay on login
should login and open chat (A)	0440	Willem Dafoe	Success, chat opens in new tab, 'Alex Hub OS' visible

Test Name	Input Room	Input Name	Expected Result
should login and open chat (B)	0440	Willem Dafoe	Success, chat opens in new tab, 'Alex Hub OS' visible

## Additional Edge and Security Tests

- **Chat Feature (A/B):**
  - Login: '0440', Name: 'Willem Dafoe', click 'Hablamos?' → New tab opens, 'Alex Hub OS' visible (A and B variants)
- **Special Characters:**
  - Room: '@#!', Name: 'Willem Dafoe' → Error
  - Room: '0440', Name: 'D@foe' → Error
- **Long Inputs:**
  - Room: '0' \* 50, Name: 'Willem Dafoe' → Error
  - Room: '0440', Name: 'Willem Dafoe' \* 10 → Error
- **Whitespace:**
  - Room: ' 0440 ', Name: ' Willem Dafoe ' → Error
- **Partial Name (Security Proof):**
  - Room: '440', Name: 'Will' → Currently allows login (should not)
  - Room: '0440', Name: 'Daf' → Currently allows login (should not)

## Page Object Model (POM)

We use a POM for maintainability and clarity. The `LoginPage` class encapsulates all selectors and actions for the login page, such as filling fields and clicking the login button. This abstraction allows tests to be concise and robust against UI changes.

## Test Cases That Should (Not) Happen

- **Should happen:**
  - Login only succeeds with exact room and surname (with or without leading zero).
  - All invalid or malformed inputs are rejected with a clear error message.
- **Should NOT happen:**
  - Login with partial names (e.g., 'Will' for 'Willem Dafoe') should not succeed (currently, it does—security issue).
  - Login with extra/double zeros or special characters should not succeed.

## Selected Test Run Reports

- [2025-12-14: 304 tests passed](#)
- [2025-12-14: 256 tests passed](#)

- [2025-12-13: 224 tests passed](#)
- [2025-12-12: 216 tests passed](#)

Open these HTML files locally for detailed results and screenshots.

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## Conclusion

All requirements are fully satisfied, with additional edge, chat feature, and security tests provided. The test suite is robust, maintainable, and ready for review. All 304 tests, including chat A/B and new scenarios, passed on all browsers/devices (2025-12-14).

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*Xavier Gonzalez Arriola*

## Breaker Tests — System Stressing & Security Probes

- **Date:** 2025-12-22
- **File / Command:** tests/breaker.spec.ts — run with `npx playwright test tests/breaker.spec.ts --workers=1`
- **Overall result (this run): 48 passed, 0 failed** — wall time ~4.1 minutes.

These breaker tests intentionally probe robustness and server-side validation for the login flow. They cover XSS and injection vectors, long inputs, multi-byte/unicode inputs, control characters, and rapid-submit stress patterns. The run summary by group is below.

- **Groups & global outcome:**
  - **XSS/reflected vectors:** 8 tests — PASSED
  - **SQLi-like payloads / injection patterns:** 6 tests — PASSED
  - **Very-long / overflow inputs:** 8 tests — PASSED
  - **Unicode, emoji, and multi-byte inputs:** 6 tests — PASSED
  - **Embedded NUL / control characters:** 8 tests — PASSED
  - **Rapid repeated submit / rate-limit probing:** 12 tests — PASSED
- **Representative per-test descriptions (all PASSED):**
  - Reflected XSS payloads in `room` and `name` fields — escaped/rejected.
  - Stored-style XSS-like inputs to verify sanitization — no execution observed.
  - SQLi-style payloads to detect SQL interpolation issues — handled safely.
  - Very-long inputs to detect overflow or crashes — validation errors observed where expected.
  - Unicode and emoji inputs to test encoding handling — accepted/rejected per validation rules, no crashes.
  - Embedded NUL and control characters to test parser robustness — rejected or safely handled.
  - Rapid repeated submit sequences to probe rate limiting — server remained stable and behaved as expected.

Traces, screenshots, and detailed test-level errors (if any) are stored in `playwright-report/` and `test-results/` for the run. The breaker tests are implemented in `tests/breaker.spec.ts` and are intended to be extended with additional vectors as needed.