

Task: <https://github.com/limehome/QA-Automation-Engineer-Challenge?tab=readme-ov-file>

Solution: Automated test solution:

<https://github.com/chrisenitan/QA-Automation-Engineer-Challenge-Solution>

QA Challenge Test Strategy

Environment:

- Platform: Limehome
- Emulated Viewport: Desktop
- Browser & Device Platform: Google Chrome, Macbook MacOS Sequoia 15.6

Test Methodology: Functional - Agile

1. Contract Tests
2. Acceptance Tests
3. Performance Tests
4. Validation Tests

Tools

Automation framework

Tool	Reason
<ul style="list-style-type: none">• Playwright	Task Recommendation and also my preference

Engine and language:

Tool	Reason
<ul style="list-style-type: none">• NodeJS• Typescript	Compatibility with Limehome Test stack

<ul style="list-style-type: none"> • Github 	
------------------------------------------------------------	--

Documentations and records:

Tool	Reason
<ul style="list-style-type: none"> • Google Docs & Google Sheets 	Instant Cloud backup and flexibility

API Validation

All API validations, regardless computed by a 3rd party tool, will still go through the testing frameworks built in the assertion library, to maintain reliable uniform error reporting.

However, there are cases where the 3rd party validation library will not be used to make assertions, due to the simplicity of data structure that can be done using Playwright only.

Tool	Reason
<ul style="list-style-type: none"> • Playwright, AJV 	<ul style="list-style-type: none"> • Using AJV to handle more complex object validations, especially for required nested properties <ul style="list-style-type: none"> ◦ I had considered Zod but was curious about working with AJV, since it has been the recent industry favourite. ◦ Also have always been critical of Zod's approach to exposing its validators.

Metrical Review:

Factor	Outcome
Flakiness	>10%

Pass Rate	100%
Average suite runtime	16.6 Seconds

Please see the projects attached HTMLunder /reports folder file for technical reports. Find below, an outline of chosen test cases and prioritization factor (PF) behind each scenario. An individual test may contain multiple steps to satisfy more than one PF listed below.


Prioritization Factors: Web UI Tests

1. Minimum assertion requirement
2. Core functionality
3. Increased chances for user pathway
4. Funnel endpoint validation
5. Negative experience invalidations

Prioritization Factors: API Tests

1. Contract fulfilment
2. High relevance to endpoints primary use case

This table is adapted to focus on the Prioritization factors. For a complete test and structure breakdown, see

 Limehome challenge - QA Engineer. Test Scenarios. Chris Enitan

Type	Test Case	Prioritization Factor
UI	Global Page Assertion	Minimum assertion requirement
UI	Search and related filter results	Core functionality
UI	Main suite configuration	Increased chances for user pathway
UI	Secondary suite editing. Addition and Deductions	Increased chances for user pathway Negative experience invalidations
UI	Valid Purchase attempt This cannot be completed on Production	Core functionality Increased chances for user pathway

		Negative experience invalidations
UI	Payment validations on voucher section	Negative experience invalidations Increased chances for user pathway
UI	Invalid Availability Dates	Negative experience invalidations
API	API Response Status	Contract fulfilment
API	API Payload	Contract fulfilment High relevance to endpoints primary use case
API	API Performance	Contract fulfilment

UI Issues

Platform	Issue	Steps to reproduce
UI	Unregistered click event	<ol style="list-style-type: none"> 1. On a fresh app, click to open any date picker 2. Select a start day from the current month. 3. Click the <i>next-month</i> button to seek the next available month view <p>The first click does not advance the calendar month view.</p>
UI	Suite image carousel buttons are triggering the image gallery	<ol style="list-style-type: none"> 1. Open a property with available Suites 2. Hover on the Suite image and click the Navigate right or left button <p>Expect the image box to act as a carousel,</p>

		it opens the image gallery instead.
--	--	-------------------------------------

Kudos to the Team 🎉

1. I really like that the team implemented Web Share API on the property page. Very detailed touch.
2. There are a very good number of Test IDs and in really relevant parts of the software.
3. The map, reacting as the user hovers through available suites on <https://www.limehome.com/listings/properties?city=32&checkin=2025-08-21&checkout=2025-08-23&rooms=1&guests=1>
 - a. That's a very elegant touch and design.