QA Automation — Affiliate Module

Client Guide: Scripts Execution and Explanation
Playwright Automation — One-button run setup

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Contents

1 Overview

This document explains how to run and understand the automated test suite for the Affiliate Module of your web application. It focuses on client-relevant information: running tests, expected input data, reading results, and key pre-checks before execution. The automation uses Playwright and is configured for a one-button run that produces a clear HTML report.

2 Why This Matters

Automated tests provide fast, repeatable checks of the main affiliate flows (registration, admin approval, dashboard metrics, transactions, and payouts). Instead of manually checking these flows each release, you run the suite and immediately see whether critical functionality has regressed.

Benefits:

- Confidence: Key affiliate flows are verified automatically.
- Speed: One-button run completes in minutes with a human-friendly report.
- Clarity: Report highlights failed steps and reasons.

3 Test Data — The Input of the Tests

All client-facing tests rely on a single source of truth: `testData.ts` located in `tests/fixtures/`. This file contains the records and names the tests expect in the application.

3.1 Naming Conventions

Fields in `testData.ts` use clear, descriptive names so clients know what to check. Example: `affiliate.firstName = "Test"` Update `testData.ts` if live data changes.

3.2 Common Fields for the Affiliate Module

Typical entries include:

- Affiliate personal info: first name, last name, email
- Business info: channels, business model, country
- Login credentials for admin and affiliate accounts
- Stripe / payout test data

3.3 File Path

`project-root/tests/fixtures/testData.ts`

3.4 Your Responsibility (Data Ownership)

Ensure records defined in `testData.ts` exist in the target environment (staging/testing). Missing or renamed records can cause failures or skipped tests.

4 Prerequisites (one-time setup)

1. Node.js LTS (v18+) — verify with `node -v`
2. Install project dependencies: `npm ci` or `npm install`
3. Install Playwright browsers: `npx playwright install`

5 How to Run Everything (One Button)

5.1 Windows (most common)

1. Open the project folder.
2. Double-click `run-tests.bat`.
3. All Affiliate Module tests run (typical runtime: 6–8 min).
4. HTML report opens automatically.

5.2 macOS / Linux

Open terminal in project root and run:

```
npm run test:all
```

Behaves the same as the one-button script.

5.3 Report

Shows PASSED / FAILED / SKIPPED and details for failures.

6 Skipping a Test (Optional)

Temporarily disable a test by marking it skipped:

```
test.skip("This test will be skipped", async () => { ... })
```

Skipped tests appear as SKIPPED instead of failing.

7 Fixtures & Test Files

All inputs (images, CSVs, etc.) are stored in `tests/fixtures/`.

7.1 Purpose of This Folder

Inputs for tests like file uploads or sample CSVs, and predefined test accounts.

7.2 How to Change Fixtures

- Images: Replace files or update paths in `testData.ts`.
- CSV Files: Edit or replace and update paths in `testData.ts`.

8 Test Data Structure Explanation

The Affiliate Module uses a consistent pattern to show what is created or updated during tests.

8.1 Example — Affiliate Registration & Dashboard

```
affiliate: {
    firstName: "Test",
    lastName: "User",
    email: "qa+affiliate+<timestamp>@example.com",
    channels: "Blog",
    businessModel: "Content",
    country: "Pakistan",
    password: "Passw0rd!@#123"
}
```

8.2 Breaking This Down

- Sign-up data: Fields required for affiliate registration.
- Login credentials: Admin and affiliate accounts.
- Metrics verification: Clicks, sales, total commission.
- Payout approval: Test data for payout simulation.

8.3 Why This Matters

Ensures affiliate registration, dashboard metrics, and payout flows are verified. Missing or incorrect records may cause failures or skips.

9 Troubleshooting & Reading Reports

9.1 Common Cases and Fixes

1. Element not found: UI changed. Notify automation owner.
2. Data missing: Required record not found. Update `testData.ts` or app data.
3. Slow network: Retry on a stable connection or adjust timeouts temporarily.
4. Metrics not updating correctly: Some tests may fail if click or sales metrics are not uploaded properly from the backend or tracking system. Verify that:
   - Test events (clicks, sales, or transactions) are registered in the system.
   - The database or API reflects the expected metrics.
   - Any delays in metric processing are accounted for with proper waits or retries in the test scripts.
5. Intermittent failures after payout approval: Sometimes the commission value may not immediately reflect the payout due to asynchronous updates in the system. Using `expect.poll` with a small timeout helps mitigate this issue.

9.2 Reading a Failed Test

Click a failed test in the HTML report to see:

- Error message (expected vs. actual)
- Step-by-step trace and screenshots

Determine if the failure is due to missing data, UI changes, or delayed metric updates.

9.3 If the Report Doesn't Open Automatically

Run:

```
npx playwright show-report
```

9.4 Reading a Failed Test

Click a failed test in the HTML report to see:

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9.5 If the Report Doesn't Open Automatically

Run:

```
npx playwright show-report
```

10 Responsibilities (Important)

- Ensure all test records exist in the environment before running tests.
- Use the same environment for multiple users to avoid false failures.

11 Support & Change Requests

- Minor tweaks (selector updates, small test additions) — quick turnaround.
- New modules or major changes — estimated separately.
- Re-activating skipped tests — remove .skip.

12 Final Notes

- One double-click runs all Affiliate Module tests and opens the HTML report.
- Keep `testData.ts` updated to match your environment.
- Typical runtime: 6–8 minutes.
- Report provides guidance on failures for faster triage.