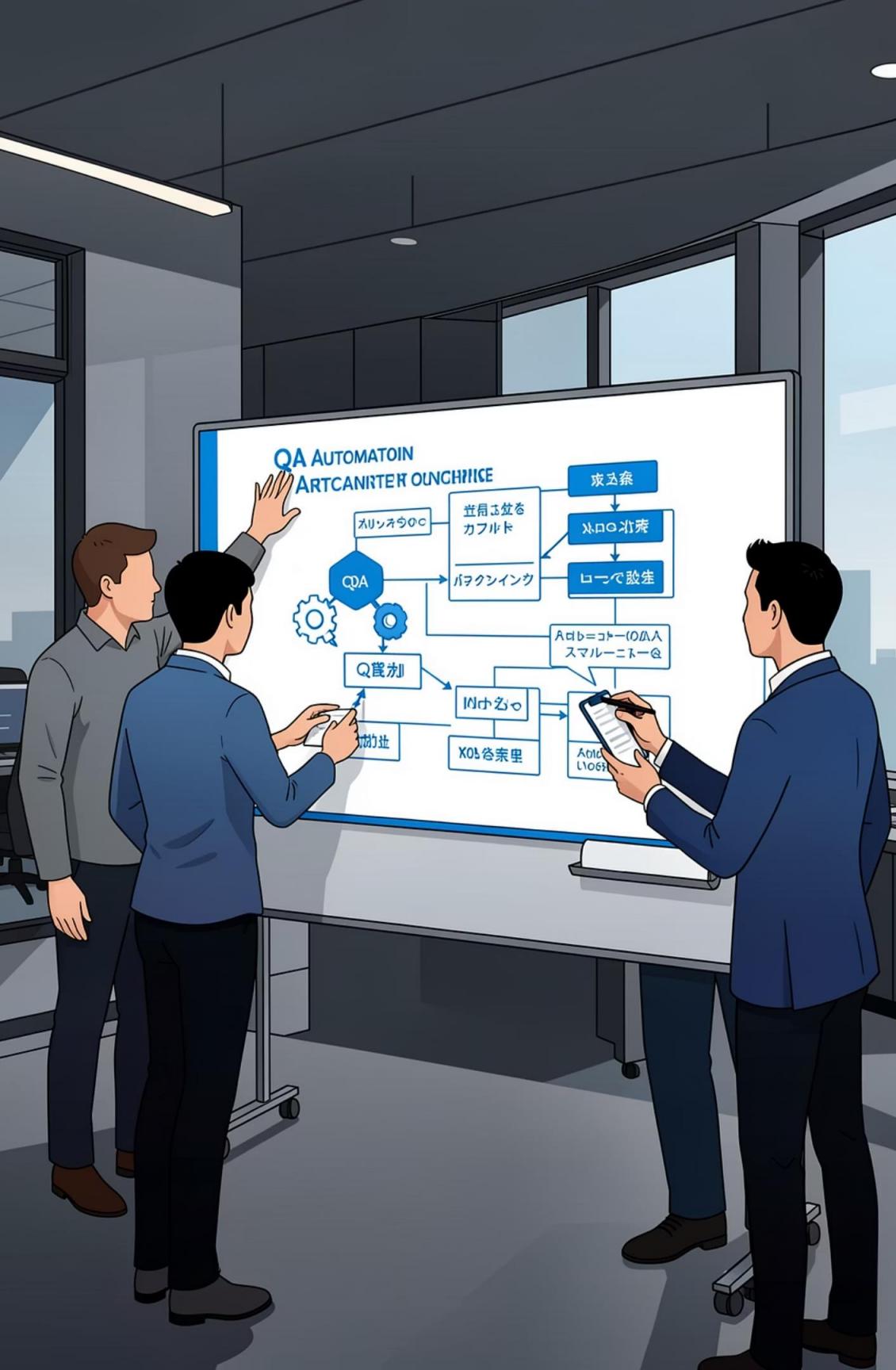




Booking Website Automation Framework

Airbnb/Booking automation built with Selenium, TestNG, Cucumber BDD, POM, Allure Reports, Log4j2 using Java + Maven.



Project Objective

Automate Core Flow

Search, date selection, price filter, and results validation on a booking site.

Professional Framework

Deliver readable tests, reusable components, screenshots, and logs.

Tools & Practices

Cucumber BDD, POM, TestNG, Allure, Log4j2 for maintainability and visibility.

Tools & Technologies



Java + Maven

Language and build tool driving the framework.



Selenium WebDriver

Browser automation for end-to-end tests.



Cucumber BDD

Readable Gherkin scenarios for collaboration.

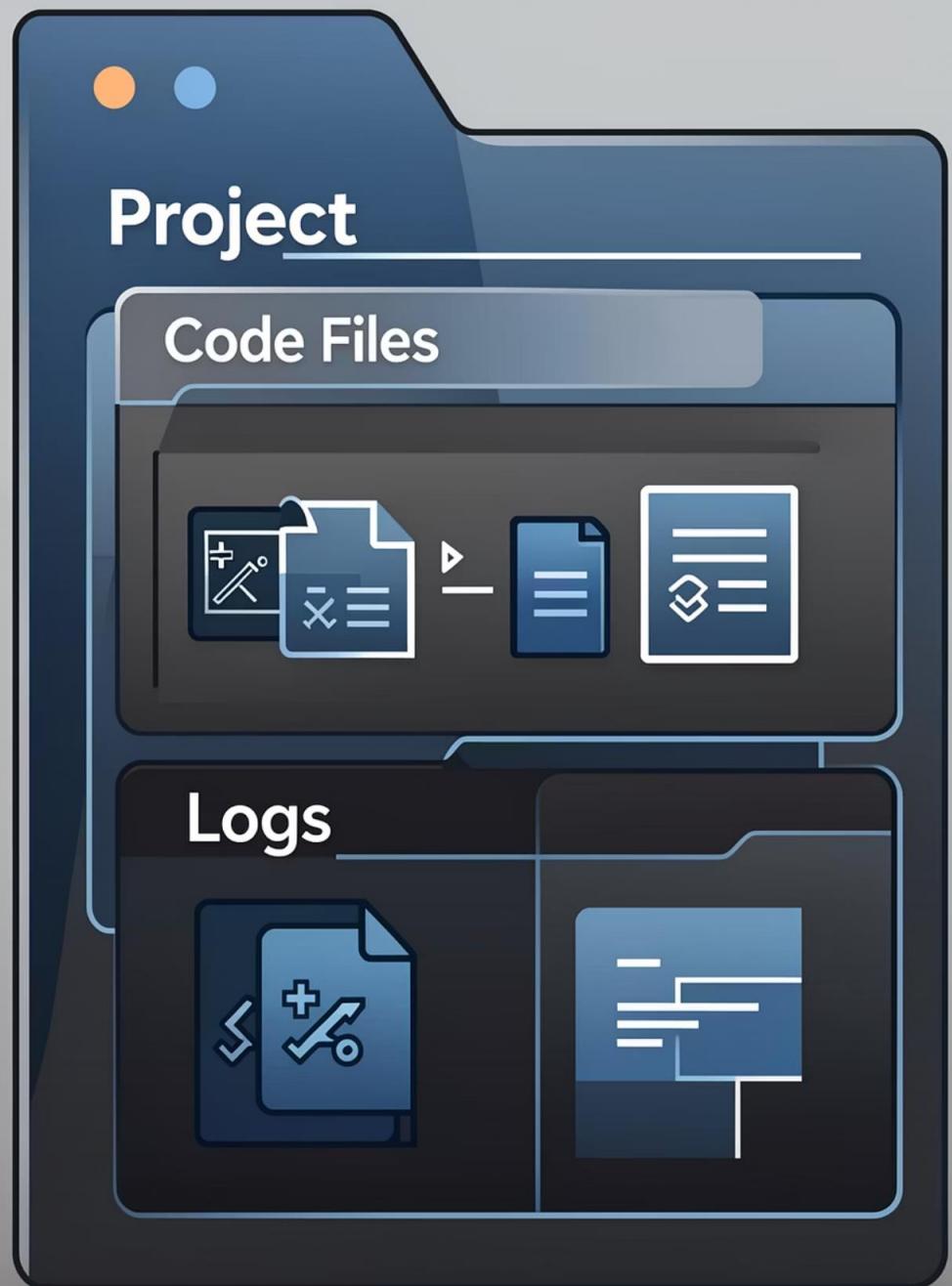


Allure & Log4j2

Rich reporting plus structured logging for debugging.

Framework Architecture

Key folders: src/main/java (base, pageObject), src/test/java (cucumber options, hooks, stepdefinitions), src/test/resources (features, log4j2.xml, data.properties), logs (automation.log, error.log).

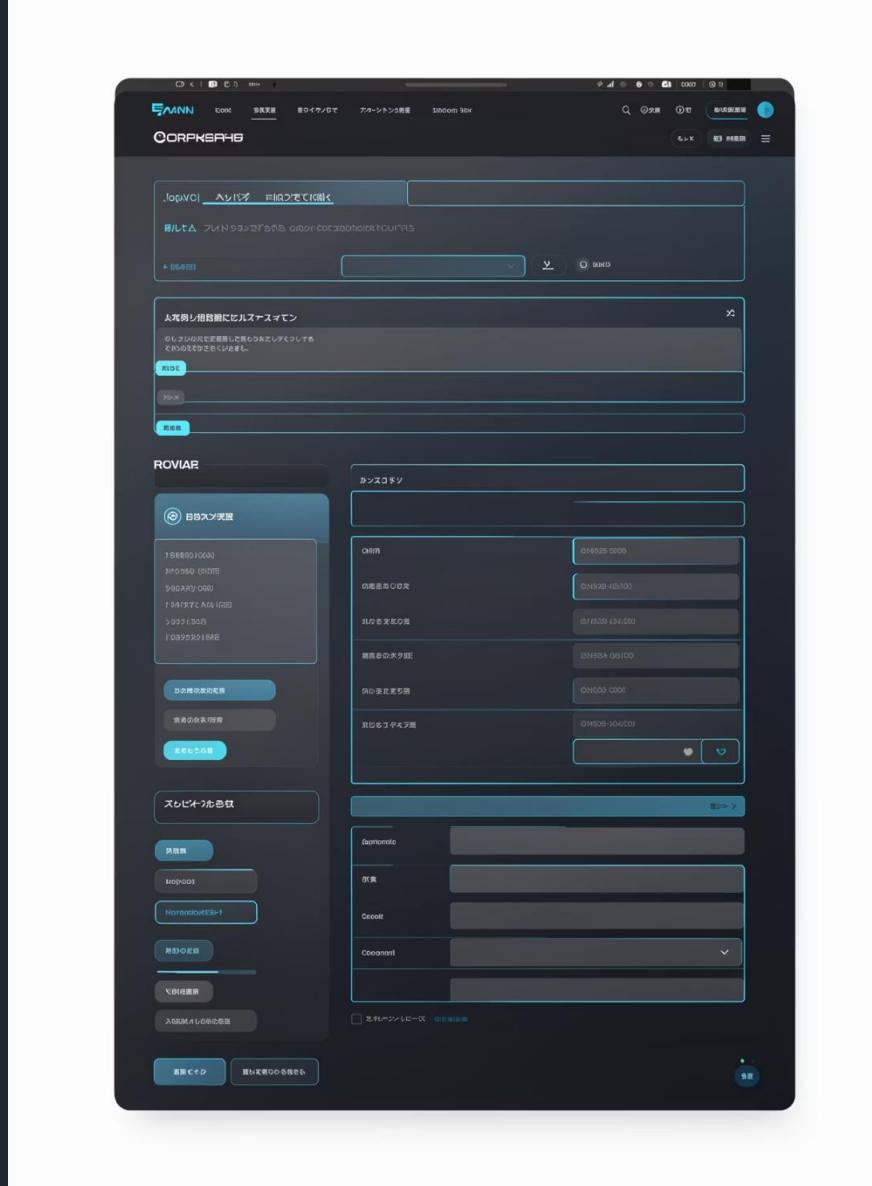


Cucumber BDD: Feature & Scenario



Gherkin steps cover opening the page, searching 'Goa', selecting check-in/out, applying price filter (1000–3000), and validating filtered results.

Page Object Model (POM)



HomePage.java

Centralizes locators (XPaths) and reusable methods: `openCalendar()`, `clickByXpath()`, `selectDates()`, `enterDestination()`, `applyFilters()`.

Benefits

Reusability, reduced duplication, easier maintenance, and clearer test code.

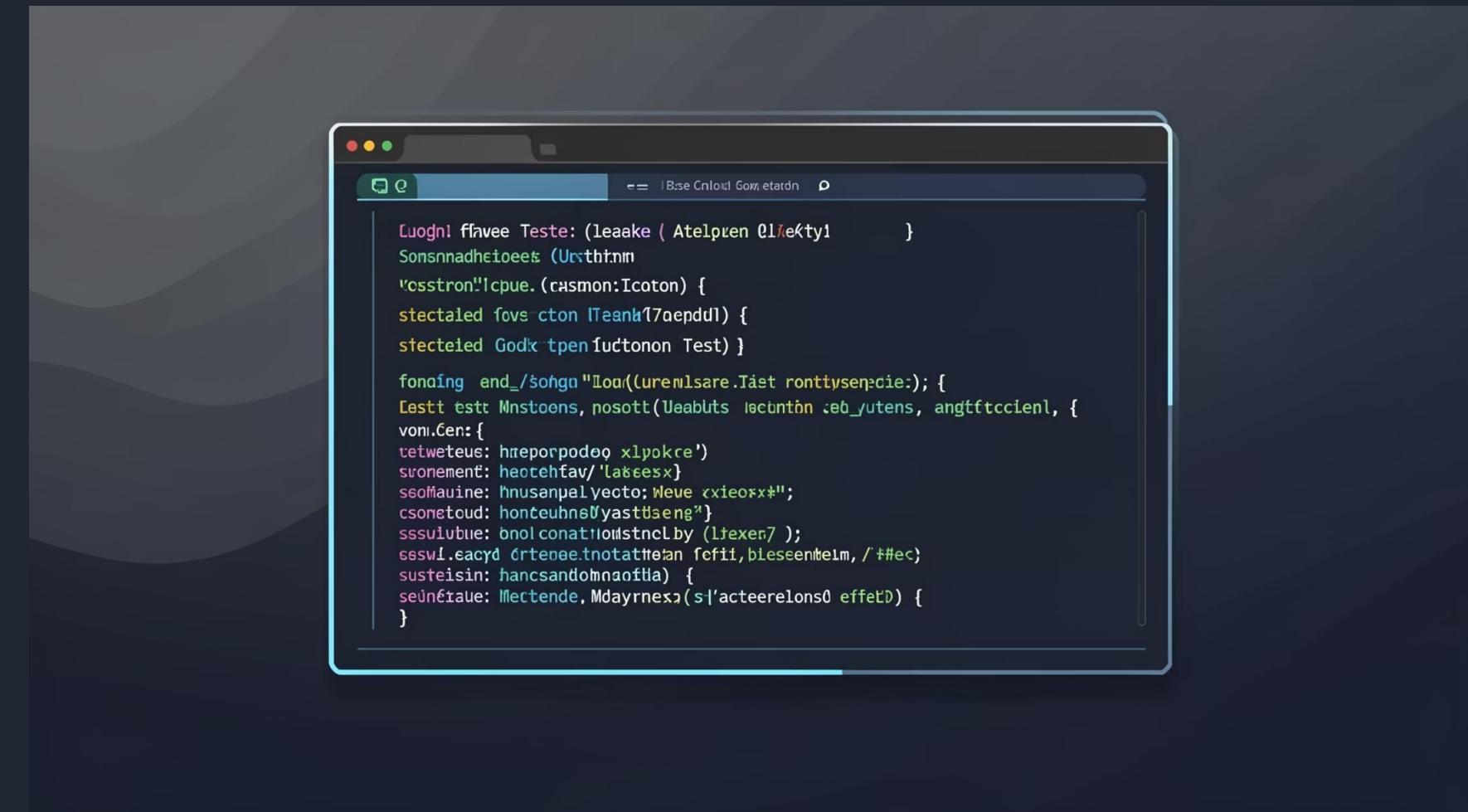
Step Definitions & Hooks

BookingSteps.java

Implements search, date selection, price filter, and result validation using POM methods.

TestHooks

Manages WebDriver lifecycle, attaches screenshots & logs to Allure, logs scenario status.



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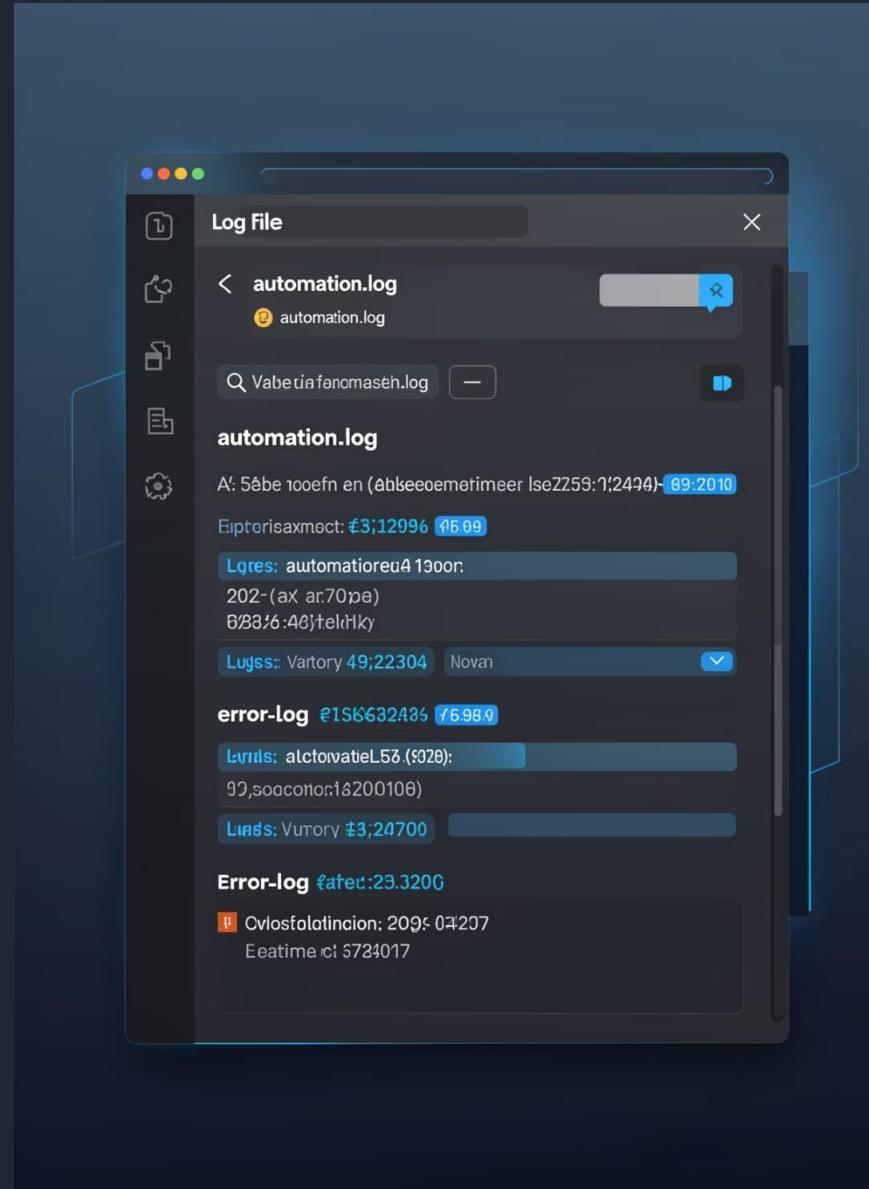
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Allure Reporting



- Dependency: allure-cucumber7-jvm
- Attached screenshots on pass & fail
- Attached automation logs
- Command: allure serve target/allure-results

Logging with Log4j2



- Files

automation.log (INFO/WARN/ERROR)
and error.log (errors only).

- Captured Events

Browser launch, URL navigation, clicks,
date selection, failures.

- Benefits

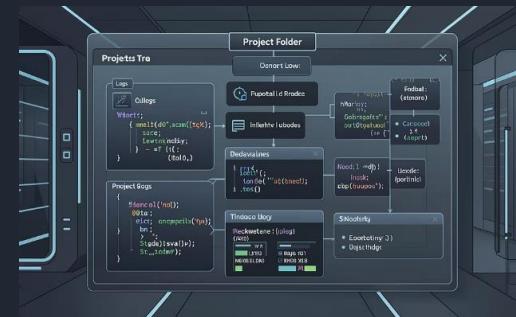
Simplifies debugging, supports development and production diagnostics, integrates with Allure.

Achievements & Outcome



Successful Automation

Automated booking workflow validated:
search 'Goa', dates 2026-03-10 to 2026-
03-12, price filter 1000–3000; scenario
passed in 45s 044ms.



Framework Delivered

Complete POM-based framework with
BDD scenarios, logging, screenshots,
Allure reporting, and scalable structure.



What We Learned

XPath crafting, POM design, Cucumber
glue code, TestNG execution, Allure
generation, log-driven debugging, Maven
dependency management.