Changes detection automation for multiple landing pages :
- Visual change detection through Playwright screenshot comparison or visual testing tools like Percy to catch unexpected UI modifications such as layout shifts or missing elements.
- Integration with CI/CD pipelines that analyze changes in sitemaps, CSS/JS bundles.
- DOM structure monitoring via lightweight Playwright or Node scripts that periodically crawl key form elements, CTA buttons, and validation attributes, triggering regression tests only when relevant HTML or selector changes are detected.
- API and content versioning where updates from CMS or content APIs automatically activate corresponding test paths.

Processes and tools :
- Shift-left testing practices, ensuring strong coverage on unit, API, and critical end-to-end scenarios
  - Playwright / Jest
- Locator auto-healing
  - Playwright
- CI/CD quality gates such vulnerability scanning before merge
  - SonarCloud
- Maintaining test traceability and clear reporting
  - TestRail or Xray with Allure dashboards
- Synthetic data generation and API mocks
  - Faker JS, API mocks
- I would like to use AI for accelerating testing processes
  - Automated test case generation using "AI Test Case Generator" extension for JIRA, flaky test analysis with QTM4J extension for JIRA.

Most challenging test automation situations :
- I faced with highly dynamic web application where frequent DOM changes and asynchronous API calls caused selectors to break and tests to become flaky
  - I improved locators, we started to use data-test-id, coordinated with developers to implement test attributes
  - Used Playwright's auto-waiting and stable role-based selectors
  - I isolated mockable data to reduce environmental dependencies
- I got a lot of flaky tests and as result loss of trust in automation
  - I implemented a flaky test dashboard to identify and prioritize the most critical failing scenarios, and shifted testing earlier into the development process so the QA team could influence UI testability during refinement.