التعاون الألماني
DEUTSCHE ZUSAMMENARBEIT

Mise en œuvre par :
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CORP
Centre d'Orientation et de Reconversion Professionnelle

CORP QA Project

Automation of Detailed Tests

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Project Charter - CORP QA Project: Test Automation for Saucedemo.com

1. Project Conception and Introduction

Global Objective

This project is designed as a complete professional simulation of a QA automation process. The aim is not only to execute tests but to master the entire lifecycle of an automation project, from planning to report production.

Technical Context

The application Saucedemo.com represents a standard e-commerce platform with typical features:

- User authentication
- Product catalog with filtering
- Shopping cart
- Checkout process
- Navigation interface (burger menu)

2. Objectives and Value

Operational Objectives

Mastery of Taught Tools:

- Git → Collaborative version control within a team
- Playwright → Modern E2E tests with JavaScript
- Selenium with Python → Robust browser automation
- Robot Framework → Keyword-driven approach for maintenance

- JIRA XRAY → Test case management and traceability
- Jenkins → CI/CD pipeline for automated execution
- SCRUM → Agile project management adapted for QA

Production of Demonstrable Artifacts

- A structured and documented Git repository
- Five executable automated tests
- A reporting dashboard in JIRA XRAY
- A functional Jenkins pipeline
- A concise technical presentation

Educational Value

This project enables participants to:

- Consolidate technical skills acquired during training
- Experiment with interactions between different QA tools
- Develop a structured methodology for teamwork
- Produce professional, demonstrable artifacts

3. Implementation Methodology

Step 1: Initialization

Creating the working environment:

- Git repository with a standardized structure
- Analysis of the target application (Saucedemo.com)
- Identification of selectors and workflows

Step 2: Test Development

Implementing scenarios according to specifications:

- Playwright tests with hooks and assertions
- Selenium tests with error handling and navigation
- Robot Framework test with reusable keywords

Step 3: Tool Integration

Connecting the components:

- Creation of test cases in JIRA XRAY
- Configuration of the Jenkins pipeline
- Generation and publication of reports
- Containerized the application using Docker for environment consistency

Step 4: Finalization

Validation and documentation:

- Complete execution of the test suite
- Writing the README and preparing the presentation
- Final consolidation commit

4. Technical Environment

Tested Application:

- URL: https://www.saucedemo.com
- Accounts: `standard_user`, `problem_user`, `locked_out_user`
- Password: `secret_sauce`

Technical Stack:

- Frontend: Standard web application (HTML/CSS/JS)
- Testing: Playwright 1.57.0+, Selenium 4.38.0, Robot Framework 7.4.1
- CI/CD: Jenkins 2.528.3 with dedicated plugins
- Test Management: JIRA Cloud with XRAY
- Version Control: Git with GitHub

5. Success Criteria

The project is considered successful when:

1. All tests execute without error locally and via Jenkins
2. The code is structured and follows best practices
3. JIRA XRAY presents a complete dashboard with results
4. The Jenkins pipeline executes the entire suite and generates reports
5. The documentation allows for full project replication

Appendix: Test Functionality Details

1. Playwright Test - Product Filtering

Tested Functionality: Product sorting and filtering system

- Criticality: Direct impact on user experience and sales
- Complexity: Dynamic state management, multi-criteria sorting verification

2. Playwright Test - Complete Payment Process

Tested Functionality: End-to-end purchase workflow

- Criticality: Direct monetary flow - no failures acceptable
- Complexity: Multiple steps, data persistence, confirmation messages

3. Selenium Test - Login Error Management

Tested Functionality: Authentication system and error handling

- Criticality: Application security and accessibility
- Complexity: Contextual error messages, error state management

4. Selenium Test - Navigation and Product Verification

Tested Functionality: Product catalog integrity

- Criticality: Accuracy of product information (price, availability)
- Complexity: Multi-page navigation, verification of dynamic attributes

5. Robot Framework Test - Burger Menu Navigation

Tested Functionality: Side navigation menu

- Criticality: Accessibility of main functionalities
- Complexity: Multi-tab management, persistent states

7.Summary

This project charter outlines a comprehensive QA automation initiative for Saucedemo.com, combining technical skill development with professional methodology. It serves as a roadmap for participants to demonstrate proficiency across the modern QA toolchain while producing tangible, professional deliverables.