

Project Title - Learning Management Skill

The screenshot displays the THE QUARRY Learning Management System (LMS) interface. At the top, the logo 'THE QUARRY' is visible on the left, and user information 'All-Time Points 520' and 'Welcome, Hardik D.' is on the right. A search bar is located below the logo. The main content area is titled 'To-Do' and lists five courses, all marked as 'Not Taken' and 'Overdue'. Each course entry includes a progress indicator (a circle with a dot), the course name, the status 'Not Taken', the duration '5m', the 'Overdue' status, and a right-pointing arrow button. The courses listed are: Security Awareness Training - Information Security, Cyber Security - Best Practices, Cyber Security: Malware, Cyber Security: Phishing, and Cyber Security: Entry Controls. Below the 'To-Do' list, there is a 'What's New?' section with a notification card that reads: '3 New Courses May 10, 2024 "Lunch and Learn - Adney Silva - Monday Automations" and others are now available.'

Overview:

The client has Learning Management System (LMS) that drives business value through a learner-centric Learning and Development approach. LMS goes beyond traditional boundaries by fostering growth, enhancing knowledge, and empowering learners through simple, motivating, and accessible learning experiences

Manual: -

- Part of the Sprint planning where need to understand the new requirements.
- Go through new JIRA tickets and assign tickets to junior QA for creating TCS.
- Test case design, Test case execution, Update Test cases according to new requirements
- Review Test-cases created by junior QA.
- Perform manual Testing on different types of environments like - SIT, Beta, Preproduction, Production.
- Sprint completion demo meeting and attend Retrospective meetings for improvements.
- Product has multiple clients with different requirements so need to follow up during production release.
- Need to create Test Automation Coverage for every product version with How many tests case can be automated and how many can't be automated.
- Need to follow up with bug tickets created by clients.

Automation: -

- We developed a robust Selenium WebDriver framework with cucumber, resulting in a 50% reduction in manual testing efforts for LMS applications. Constructed and managed a Selenium Grid infrastructure that supported parallel test execution with 4 nodes, reducing execution times by over 70%.
- Collaborated with cross-functional teams to integrate automated tests into the CI/CD pipeline, achieving a 20% faster go-to-market for new features.
- Provided mentorship to junior QA staff in writing effective test cases and managing test cycles, ramping up team productivity.
- Implemented continuous testing processes using Jenkins, which cut down on release cycles while maintaining software quality.

Technology & Tools:

- Java, Cucumber, Test NG
- Docker (Running TCS in local machine)
- CI-CD (Jenkins)
- JMeter
- Lambda test (TCS execution server)

Challenges we faced: (In Automation)

Problem 1: While executing TCS in parallel, it was affecting other TCS due to the same test-data accessibility. It was causing TCS failure as all the users were able to see all the test data.

Solution: We applied audience-based criteria for every test case. Only a particular TCS can access test data aligned with that test case.