

Test Plan for QA Capstone Project

1. Introduction

- o This Test Plan outlines the testing approach, objectives, scope, deliverables, and schedule for the QA Capstone Project to be completed in **one week**. The project focuses on the **Login** and **Recruitment** modules of OrangeHRM, covering manual testing, automation with Cypress, and performance testing with K6.

2. Scope of Testing

2.1. Modules in Scope

- o **Login Module**
 - Valid and invalid login attempts.
 - Field validation for username and password.
 - Error messages for invalid or empty inputs.
- o **Recruitment Module**
 - Adding a new candidate and vacancies.
 - Searching candidates and vacancies by different attributes.
 - Field validation for mandatory inputs during candidate and vacancies creation.

3. Test Strategy

3.1. Testing Types

- o **Functional Testing:** Validate functionality of the Login and Recruitment modules.
- o **Automation Testing:** Automate critical E2E scenarios using Cypress.
- o **Performance Testing:** Measure the Login page's performance using K6 with parameterized scenarios.

4. Test Deliverables

- o Test Cases (Manual and Automated).
- o Manual Test Execution Reports (via TestLink).
- o Cypress Automation Test Scripts and Reports.
- o K6 Performance Test Scripts and Results.

5. Test Execution Schedule

Phase	Activities	Start Date	End Date	Duration
Phase 1: Manual Testing	Test case preparation, execution, and reporting	Day 1	Day 2	2 Days
Phase 2: Automation Testing	Develop Cypress scripts and execute tests	Day 3	Day 4	2 Days
Phase 3: Performance Testing	Develop K6 scripts and analyze performance	Day 5	Day 5	1 Day

6. Roles and Responsibilities

Role	Responsibility
QA Lead	Manage test activities, review deliverables, and ensure quality.
QA Engineers	Execute tests, write automation scripts, and analyze performance results.

7. Entry and Exit Criteria

o Entry Criteria

- SRS and Test Plan are approved.
- Test environment is ready.
- Test cases are prepared in TestLink.

o Exit Criteria

- All test cases are executed.
- No critical or high-severity defects remain unresolved.
- Test reports are finalized and shared with stakeholders.

8. Risk Management

Risk	Mitigation Plan
Limited time for execution	Prioritize critical test cases and automate high-priority flows.
Flaky automation tests	Stabilize scripts using retries and Cypress best practices.

9. Test Cases Overview

o Login Module

- Test valid login with correct credentials.
- Test invalid login with incorrect credentials.
- Validate error messages for missing username and password fields.

o Recruitment Module

- Test adding a new candidate with valid details.
- Validate error messages for missing mandatory fields during candidate and vacancies creation.
- Search for candidates and vacancies by different attributes.

10. Tools

Purpose	Tool
Test Management	TestLink
Issue Tracking	Jira
Test Automation	Cypress
Performance Testing	K6
Performance Visualization	Grafana

11. Detailed Timeline

Day	Activity	Deliverable
Day 1	Prepare Test Cases and log them in TestLink.	Test cases prepared and logged in TestLink.
Day 2	Execute test cases manually and generate TestLink report.	Manual Test Execution Report.
Day 3	Develop Cypress E2E automation scripts.	Cypress scripts (Login and Recruitment flows).
Day 4	Execute Cypress tests, generate reports, and debug.	Cypress Test Report.
Day 5	Develop K6 scripts for Login performance testing, execute, and analyze.	K6 Performance Report and Metrics.