

# Test Plan for OrangeHRM Web Application

## 1. Introduction

This Test Plan outlines the strategy, objectives, scope, resources, schedule, and approach for testing the **OrangeHRM** web-based Human Resource Management application. The goal is to ensure the software meets the defined functional and non-functional requirements, providing a stable, secure, and user-friendly HR management system.

---

## 2. Objective

The main objective of this Test Plan is to verify that all key modules of the **OrangeHRM** application — including Login, Dashboard, Admin, PIM, Leave, Time, Recruitment, and My Info — function as intended. Testing aims to identify and resolve defects early to ensure high product quality before release.

---

## 3. Scope of Testing

### In-Scope:

- Functional testing of all major OrangeHRM modules.
- UI/UX validation of forms, menus, and navigation.
- Input field validation (e.g., login credentials, employee data).
- End-to-end test scenarios like employee creation, leave request, and approval flows.
- Cross-browser testing (Chrome, Edge, Firefox).
- Regression testing after major updates or bug fixes.

### Out of Scope:

- Performance and load testing (will be handled separately).
  - API-level testing.
  - Mobile app testing.
- 

## 4. Test Objectives

- Validate that each module meets functional specifications.
  - Verify data consistency across modules (e.g., Admin → PIM → Reports).
  - Ensure all role-based access controls (Admin, ESS, Supervisor) work correctly.
  - Validate error handling, security messages, and session management.
  - Ensure compatibility across different browsers and resolutions.
- 

## 5. Test Approach

A combination of **manual and automation testing** will be used.

### Manual Testing:

- Exploratory testing to discover UI/UX issues.
- Functional validation using test scenarios and test cases.
- Regression testing after fixes and updates.

### Automation Testing:

- Selenium WebDriver with Java and TestNG framework.
- Automation of core regression test cases such as Login, Employee Creation, and Logout.
- Integration with CI/CD pipeline (Jenkins) for scheduled test runs.

---

## 6. Test Items / Features to be Tested

Module	Key Features to be Tested
Login	Valid and invalid credential validation, error messages, forgot password flow
Admin	Add, edit, delete users and employee records, role-based access
PIM (Employee Management)	Add, edit, view employee details, search and filter employees
Leave	Apply leave, approve/reject leave, leave balance validation
Time	Attendance marking, timesheet submission, and approval
Recruitment	Add candidates, schedule interviews, update hiring status
My Info	Edit personal details, view contact and emergency information
Logout	Session termination and redirection to login page

---

## 7. Test Deliverables

- Test Plan Document
- Test Scenarios and Test Cases
- Test Execution Report
- Defect/Bug Report
- Test Summary Report
- Automation Test Scripts and Execution Logs

---

## 8. Entry and Exit Criteria

### Entry Criteria:

- Functional requirements and user stories are finalized and approved.
- Test environment and credentials are available.
- Test data is prepared.
- Test cases are reviewed and approved.

### Exit Criteria:

- All high and medium-severity defects are closed.
  - Test coverage of at least 95% achieved.
  - Regression testing completed successfully.
  - Sign-off received from QA and stakeholders.
- 

## 9. Test Environment Product Owner

Component	Description
Application URL	<a href="https://opensource-demo.orangehrmlive.com/">https://opensource-demo.orangehrmlive.com/</a>
Browser Support	Chrome (latest), Edge, Firefox
Test Environment	QA/Staging environment
Tools Used	Selenium WebDriver, TestNG, Jenkins, Postman (for API exploration), JIRA (bug tracking), Extent Reports

---

## 10. Roles and Responsibilities

<b>Role</b>	<b>Responsibility</b>
<b>Test Lead</b>	Prepare Test Plan, assign tasks, manage test cycles, ensure coverage
<b>Test Engineer</b>	Design and execute test cases, report defects, participate in regression testing
<b>Automation Engineer</b>	Develop and maintain automated test scripts, integrate with CI/CD pipeline
<b>Developer</b>	Fix identified defects and provide build updates
<b>Project Manager</b>	Approve deliverables, monitor timelines and milestones

---

## 11. Test Schedule (Tentative)

<b>Activity</b>	<b>Start Date</b>	<b>End Date</b>
Test Planning	10-Nov-2025	12-Nov-2025
Test Case Design	13-Nov-2025	16-Nov-2025
Test Environment Setup	15-Nov-2025	16-Nov-2025
Test Execution (Cycle 1)	17-Nov-2025	22-Nov-2025
Regression Testing	23-Nov-2025	26-Nov-2025
Bug Fix Verification	27-Nov-2025	28-Nov-2025
Test Closure & Summary Report	29-Nov-2025	30-Nov-2025

---

## 12. Risk and Mitigation

<b>Risk</b>	<b>Impact</b>	<b>Mitigation</b>
Unstable build releases	High	Coordinate closely with developers and maintain version control
Environment downtime	Medium	Maintain a backup QA environment
Test data inconsistencies	Medium	Use controlled datasets and reset scripts

Delayed bug fixes      High      Prioritize critical defects and daily triage meetings

---

## 13. Defect Management

- All defects will be logged in **JIRA** with detailed steps to reproduce, screenshots, and severity levels.
  - Each defect will be tracked through its lifecycle: **New** → **Open** → **Fixed** → **Retested** → **Closed**.
  - Severity and priority will be assigned based on business impact.
- 

## 14. Test Metrics

- Total test cases executed
- Test cases passed/failed/block
- Defect density and severity distribution
- Defect turnaround time
- Test coverage percentage

## 15. Test Closure

After completing all test cycles, a **Test Summary Report** will be prepared that includes:

- Overall testing status
- Summary of executed test cases and results
- Open defect list (if any)
- Lessons learned and improvement suggestions

Final sign-off will be obtained from the QA Lead and Project Manager once all exit criteria are met.

---

## 16. Approval

Role	Name	Signature / Date
QA Lead		
Project Manager		
Product Owner		