Test Plan

Of

OrangeHRM

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# **Introduction**

OrangeHRm offers a comprehensive human resources management system to suit all

of your HR business.In 2005 when OrangeHRM started we had one mission, to make HR about the people. We wanted to remove any pain our fellow HR manager might be feeling in their job. Since then we have developed a world leading open source HR software that is trusted by over 5 million users.

## Objective

A primary objective of testing application systems is to: assure that the system meets the full requirements, including quality requirements (i.e. Non-functional requirements) and fit metrics for each quality requirement and satisfies the use case scenarios and maintain the quality of the product. At the end of the project development cycle, the user should find that the project has met or exceeded all of their expectations as detailed in the requirements.

## Scope

HRMS stands for human resource management system. An HRMS digitalises and automates HR processes, helping HR team members work faster, smarter, and more efficiently, so they can focus on improving employee experiences.OrangeHRM consist of different features like Admin, Product Information Management(PIM), Leave, Time, Recruitment, My Info, Performance, Directory, Maintenance, etc.which also include submodules like User Management, Job, Organization, Employee List, Add Employee, Reports etc.

### In-Scope

In this OrangeHRM software it consists of many modules which are not possible for testing in this build. So,we will be testing only the Admin module, My Info module, PIM Module and Recruitment module this time.

### Out Of Scope

Although we have limited time for testing the feature at this time, we will include other modules of OrangeHRM in the next build that are Leave module, Time module, Performance module and others modules.

# **Test Methodology**

## Overview

The below list is not intended to limit the extent of the test plan and can be modified to become suitable for the particular project.

## Test Types

### **Unit Testing**

Perform unit tests on individual components and modules of the OrangeHRM application, ensuring they meet the specified requirements and behave as expected.

### **Integration Testing**

Verify the seamless integration and communication between different modules and components of the OrangeHRM application.

### **End-to-End (E2E) Testing**

Conduct E2E tests to validate the entire user flow and business processes within the OrangeHRM application, simulating real-world scenarios.

### **Acceptance Testing**

Involve end-users and key stakeholders in the testing process to ensure the OrangeHRM application meets their acceptance criteria.

### **Usability Testing**

Evaluate the user-friendliness, intuitiveness, and overall user experience of the OrangeHRM application.

### **Security Testing**

Identify and address potential security vulnerabilities in the OrangeHRM application, including authentication, authorization, and data protection mechanisms.

## Test Approach

* Adopt a combination of both manual and automated testing techniques to ensure comprehensive test coverage.
* Implement a risk-based testing approach, focusing on high-priority and high-risk areas of the application.
* Incorporate both functional and non-functional testing, including usability, performance, security, and compatibility testing.
* Align the testing activities with the agile development methodology used for the OrangeHRM project.

## Test Assumptions

* The OrangeHRM application and its supporting infrastructure (web server, database, etc.) will be available and accessible during the testing activities.
* Any scheduled maintenance or downtime will be communicated to the testing team in advance to plan the test activities accordingly.
* The testing team will have the necessary access, permissions, and tools to set up, manage, and maintain the test environments.
* The development team will be responsive and timely in addressing and resolving the reported defects.

## Defect Tracking

Github and Jira are used to enter and track all the bugs and project issues.

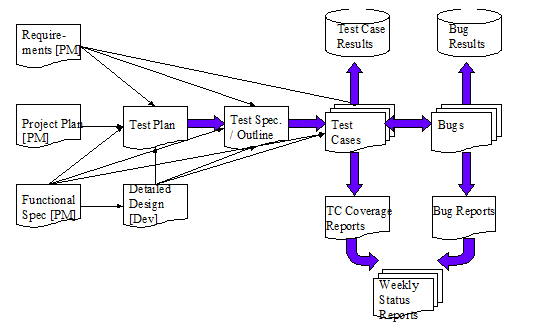
## Risk and Mitigation

## In software testing, the key risks include lack of test coverage, test environment issues, defect leakage, resource constraints, and regulatory/compliance risks. To mitigate these risks, comprehensive test planning, continuous test environment monitoring, effective defect management, test automation, and stakeholder collaboration are crucial. Also here, the risks like Incomplete requirements, delayed build delivery, can also be included

## Backup

To ensure backup and recoverability, it is important to maintain backups of the test environment, test cases/suites, defect management data, test execution results, test automation scripts, and the testing team's knowledge base. This enables the restoration of the testing infrastructure and artifacts in case of failures or data loss, supporting the overall resilience and continuity of the testing process.

# **Test Deliverables**

Testing will provide specific deliverables during the project. These deliverables fall into three basic categories: Documents, Test Cases / Bug Write-ups, and Reports. Here is a diagram indicating the dependencies of the various deliverables:

As the diagram above shows, there is a progression from one deliverable to the next. Each deliverable has its own dependencies, without which it is not possible to fully complete the deliverable.

## Test Scheduling

This test scheduling is the responsibility of Test Lead and will be based on information from Project Scheduler or Project Manager.

## Entry Criteria

Meeting the entry criteria ensures the testing environment is set up correctly and test cases and data are ready for execution.Necessary resources are available, features to be tested and completed.

## Exit Criteria

The exit criteria in test execution confirm that the test execution phase has been completed according to the defined testing scope and objectives.Also all test cases has been executed, critical defects are fixed and UAT completed

# **Environment and Resources Needs**

## Testing Tools

### Automation Testing Tool

Selenium is used for automation testing. The team lead is responsible for maintaining the database and testing framework.

### Tracking Tool

Github and Jira are used to enter and track all the bugs and project issues.

## Test Environment

### Hardware

This includes the minimum hardware requirements that will be used to test the Application.Testing will have access control to one or more application/database servers separate from any used by non-test members of the project team. Testing will also have access control to an adequate number of variously configured PC workstations to assure testing a range from the minimum to the recommended client hardware configurations listed in the project’s Requirements, Functional Specification and Design Specification documents.

### Software

In addition to the application and any other customer specified software, the following list of software should be considered a minimum:

* NT Workstation 4.0 or Windows 95.
* MS Office 95 Professional
* MS Exchange
* TCM (Testing Tool Server)
* Task Manager (Testing Tool Server)

## Test Data

This consists of a list of test data which will be used to test the software.

# **Templates**

There are several templates and test artifacts commonly used in software testing.Here are some most commonly used templated below:

## Test Plan

A test plan is a document that describes the test scope, test strategy, objectives,

schedule, deliverables and resources required to perform testing for software products.

## Test Case

Step by step actions to perform to validate functionality AUT.It contains test steps, prerequisites,test data, expected result, actual result,etc

## Test Scenario

A Test Scenario is defined as any functionality that can be tested.

## Defect Report

It is a document that describes a defect, including its severity, priority, and steps to replicate the problem

## Test Suite

It is a group of test cases belonging to the same categories.

# 

# **Conclusion**

The test plan for the OrangeHRM website outlines a comprehensive approach to ensure the quality and reliability of the application. By covering a range of test types, from unit to end-to-end testing, the plan aims to identify and address defects early in the development lifecycle. The integration of test automation will enhance efficiency and consistency, while careful planning of the test environment and data management will strengthen the overall testing process. Continuous collaboration between the testing, development, and business teams will be crucial to align on priorities and deliver a high-quality product that meets stakeholder expectations. By following this well-defined test plan, the OrangeHRM website can be launched with a high degree of confidence in its functionality and performance.