**Test plan**

***OrangeHRM Installation, Deployment and Modification of Source Code***

**Revision History**

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| --- | --- | --- | --- |
| **VERSION** | **DATE** | **AUTHORS** | **DESCRIPTION** |
| V1.0 | March 19, 2020 | Susree Banerjee, Riya Kumari,  Twinkle Arora,  Nishant Mahto,  Bikash Kumar Sethy. | Initial Version |

**Table of Contents**

1. Introduction
   1. Purpose
   2. Intended Audience
   3. Project Scope
   4. References
2. Overall Description
   1. Product Perspective
   2. Product Features
   3. User Classes and Characteristics
   4. Operating Environment
   5. Design and Implementation Constraints
   6. User Documentation
3. System Features
   1. Home Page Module
   2. New User Registration Module
   3. Contact Sales Module
   4. Login Module
   5. Admin (Locations)Module
   6. Personal Information Module(PIM)
   7. Performance Module
   8. Admin Dropdown Module
4. External Interface Requirements
   1. Software Interfaces
   2. Communications Interfaces
5. Non-functional Requirements
   1. Performance Requirements
   2. Safety Requirements
   3. Security Requirements
   4. Software Quality Attributes
6. Epilogue
7. **Introduction**

## Purpose

This document details the functionality required for the world’s most popular Open Source Human Resource Management Software (HRMS) – OrangeHRM, currently operating under the version

2.6.10 on which our current deployment is based on. OrangeHRM is an Open Source HRM system. It provides an ideal solution for small and medium sized enterprises looking for an inexpensive way to effectively manage and develop their human resources.

Deployment of OrangeHRM is intended initially to replace existing manual management of employee details by an organization's administrators, with a new, integrated web-based system having the features detailed in this document. It provides a foundation that facilitates orderly growth of future enhancements.

## Intended Audience and Reading Suggestions

Different types of readers:

* + - Developers *: PHP Web Developers*
    - Project Managers *: Organization Administrators*
    - Users *: Employees (ESS Users) and their supervisors*
    - Testers *: Deployment Technology Experts and Apache Server Administrators*
    - Documentation Writers *: The Project/Development Team*

## Project Scope

* *Software : OrangeHRM*
* *Benefits : Small and medium scale enterprises are the perspective customers*
* *Objectives : Further automate the process of human resource management using OrangeHRM*
* *Goals : Version refinements in maintaining employee data and appraisals*

## References

##### Websites*:*

* [*OrangeHRM official website*](http://www.orangehrm.com/) *(www.orangehrm.com)*

##### License*:*

* + - [*GNU General Public License v3.0*](http://www.gnu.org/copyleft/gpl.html) *(*[*www.gnu.org/copyleft/gpl.html)*](http://www.gnu.org/copyleft/gpl.html))
    - [*GNU Lesser General Public License v3.0*](http://www.gnu.org/copyleft/lgpl.html) *(*[*www.gnu.org/copyleft/lgpl.html)*](http://www.gnu.org/copyleft/lgpl.html))

##### Contracts:

* + - [*OrangeHRM Privacy Policy*](http://www.orangehrm.com/privacy%20policy/OrangeHRM_Privacy_Policy_RV_0.1-1-1.pdf) *(*[*www.orangehrm.com/privacy%20policy/OrangeHRM\_Privacy\_Policy\_RV\_0.1-1-1.pdf)*](http://www.orangehrm.com/privacy%20policy/OrangeHRM_Privacy_Policy_RV_0.1-1-1.pdf))

# Overall Description

## Product Perspective

This product is a derivative of the original OrangeHRM application developed by OrangeHRM Inc. It is also intended as a replacement to the original application in terms of additional functionalities in in maintaining employee data and appraisals.

## Product Features

OrangeHRM offers a flexible and easy to use HRIS (Human Resource Information System) solution for small and medium sized companies free of charge. By providing modules for registration, login contact sales, Admin, Locations personnel information management, employee self-service, etc. The combination of these modules into one application assures the perfect platform for re-engineering and aligning your HR processes along with the organizational goals.

**Major Features:**

[***Administration Module***](http://www.orangehrm.com/open-source-product-features-admin.shtml#admin)

The part of the system where the HR Manager or other appointed personnel perform all system administration tasks. This includes setting location of the organization and performing some other tasks related to the organization and it helps to make the backbone of the system.

[***Personal Information Management***](http://www.orangehrm.com/open-source-product-features-pim.shtml#pim)

This core module maintains all relevant employee related information, including different types of personal information, detailed qualifications and work experience, job related information etc. Picture of employee is included as well. Information captured in this module is utilized by all other modules, thus eliminating data redundancy.

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[***Performance Module***](http://www.orangehrm.com/open-source-product-features-performance.shtml#performance)

Another natural attachment to OrangeHRM. While simplifying the performance review process you can communicate the key performance indicators for each job title allowing the employees to understand and achieve your expectations.

## User Classes and Characteristics

#### User Classes*:*

1. *Faculty (Professors & Assistant Professors)*
2. *Non-teaching Staff*
3. *Head of the Department*
4. *Research Scholars*
5. *Teaching Assistants*
6. *Deployment and Maintenance Technicians*
7. *Information Technology Analysts*

#### Technical Expertise*:*

A minimum knowledge of operation of Computers and the Internet is assumed for the use of this application by the organization's administrators.

Deployment technicians are required to have a good knowledge of Server Configurations in order to install the application successfully.

#### Experience Levels:

Users are expected to know or learn from this manual about their concerned modules of OrangeHRM.

## Operating Environment

The software operates on the Unix, Linux, Mac OS and Microsoft Windows operating systems running an Apache HTTP Server (v1.3 or later), scripted with PHP (v5.1.0 or later) . Moreover, it is an operating system independent Web-based application.

## Design and Implementation Constraints

Limitations:

This product is limited to small and medium scale enterprises. The point is with the semi-automated database system. Though scripting might help but foreign keys introduction is not dynamic.

## User Documentation

Documentation Sources:

* + - [*OrangeHRM Users Forum*](http://www.orangehrm.com/forum) *(*[*www.orangehrm.com/forum)*](http://www.orangehrm.com/forum))
    - [*OrangeHRM Users and Developers Blog*](http://www.orangehrm.com/blog) *(*[*www.orangehrm.com/blog)*](http://www.orangehrm.com/blog))
    - [*OrangeHRM Wiki*](http://wiki.orangehrm.com/) *(wiki.orangehrm.com)*
    - [*OrangeHRM User Guide*](http://www.orangehrm.com/quickstart/Quick%20User%20Guide_version%202.4.pdf) *(*[*www.orangehrm.com/quickstart)*](http://www.orangehrm.com/quickstart))

# System Features

This section displays the various features of our product and what the users can expect from them. Our product is divided into number of modules, each module having its own significance.

## Homepage Module:

The home page of OrangeHRM application should appear in the main screen through which Administrator & User can access the application. In the Home Page Home, 30 day Trial, Contact Sales links should be present. User should be able to view these links. It should contain information about OrangeHRM.

## New User Registration (30 day Trial) Module:

The New User registration page of OrangeHRM application should contain The User ID, First Name, Last Name, Email Address, Phone Number, Job Title, No. of Employees, Company Name, Industry Name, Country. It should be Submit button. On clicking the Submit button, it should check for the all fields. If any one of the fields are missing or invalid input, it should alert an appropriate error message.

## Contact Sales Module:

The Contact Sales Module of OrangeHRM application should contain The First Name, Last Name, Email Address, Phone Number, Job Title, No. of Employees, Company Name, Comment, Country. It should be Submit button. On clicking the Submit button, it should check for the all mandatory fields. If any one of the fields are missing or invalid input, it should alert an appropriate error message.

### Login module:

The Login page of OrangeHRM application should contain The Username, Password. The entered characters in the Password field must be masked with a symbol It should be Login button. On clicking the Login button, User navigate to the next Page. If any one of the fields are invalid input, it should alert an appropriate error message.

### Admin Module:

### The part of the system where the HR Manager or/and other appointed personnel perform all the system administration tasks. This includes defining Organization, Location and other information that serves as the backbone for the system. Security issues are taken care of through this module as well by defining user rights.

To broadly explain this module, it is divided into number of categories, which includes:

* + - *Organization: It gives a detailed description of the company, its location, structure and property.*
* *Location: This Category deals with Name, Country, State, city, postalCode, Phone no. , fax Address of various employees in the company.*

This module therefore allows entering the various fields for employee(s), his/her rights and the overall structure of the company.

### Personnel Information Management Module(PIM):

This core module maintains all relevant employee related information, including different types of personal information, Add Employee, Employee list etc. Picture of employee is included as well. We can also add or remove employee in this module. Information captured in this module is utilized by all other modules, thus eliminating data redundancy.

* 1. **Performance Module:**

**3.7.1** **Appraisal List**

This module maintains all relevant added employee related information, including Employee Name, Description,Template, From, To, Due Date, Next etc. and navigate to the Add Evaluators page, including main Evaluators, Subordinates, Save button etc. and stored the all Employee Appraisal Details. Information captured in this module is utilized by all other modules.

* 1. **Admin Dropdown Module :**

**3.8.1 Log Out**

The user should be able to logout of the OrangeHRM application after clicking on Log Out option from the Admin Dropdown.

# External Interface Requirements

## Communications Interfaces

Any suitable standard web browser with JavaScript support. Mozilla Firefox 7.0 or later is recommended for best experience. Opera, Microsoft Internet Explorer, Apple Safari and Google Chrome are also supported. The application operates via the standard HTTP, and also on a local host

# Non-Functional Requirements

## Performance Requirements

The application is meant for extensive use by the organization and aims at 99% uptime. Availability may be negatively impacted by a variety of events including, but not limited to, user error, hardware failure, external system events, unavailability of support personnel, etc.

The system is compatible with all workstations that fulfill the minimum system requirements. It is able to fulfill requirements simultaneously using duplicated rather than shared resources. The cost of ownership of the system is reasonably low, as it is based on a strong open-source platform. This costs only amount to the net cost of system installation and maintenance, and provision of training to its users.

## Safety Requirements

A regular backup of all databases associated with the system must be performed in order to prevent loss of information. A weekly backup is recommended. Please contact the Server administrator for more details regarding backup procedures.

## Security Requirements

All privacy matters are determined according to the OrangeHRM Privacy Policy which contains clauses regarding User Identity Authentication.

|  |  |
| --- | --- |
| **Administrator** | * Is a "super-user" who manages the application * Has a privilege to submit, edit, disable, and query all types of data in the system. * Approves and manages user registration process. * Has a privilege to see all the identified data. |
| **Supervisor** | * Is similar to Administrator but does not have access to administrative functions. * Has a privilege to submit, edit and disable participant and module data in the system. * Has read only privilege to administrative data. |
| **Technician** | * User role assigned to an individual who is in-charge of entering data into the system. * Handles duration, storage and distribution of information. * Has access to only de-identified data. |
| **ESS User** | * Has read-only access to aggregate data |

|  |  |  |
| --- | --- | --- |
| **Role\Data** | **Administrative Data** | **Participant Data** |
| **Administrator** | Add / Edit / View | Add / Edit / View |
| **Supervisor** | Identified View | Add / Edit / View |
| **Technician** | De-identified View | De-identified View |

## Software Quality Attributes

The application can flexibly operate under any kind of organization structure and employee hierarchy. In-spite of the possibility of certain bugs, the application is quite robust in nature and allows the users to detect and solve most problems by themselves. From the point of view of the organization's administrators, the application is quite easy to install, deploy, operate and maintain.

The system is also able to audit each and every user action that results in database access (read or write). Examples include: add/edit administrative data, user login, query, distribution, and so forth. Besides, it can be ported to different platforms with several available customizations and plug-ins. The system is capable of scalability to increasing numbers of users, transactions, etc. Yet, the use of the system in a different context other than what it is meant for is not recommended.

# Epilogue

***Version 1.0 statement***

With OrangeHRM and its features of version 1.0, we expect better software to real world simulation of the Human Resource Management.