**ORANGEHRM - PIM – Test Design**

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| **Testcase Title** | **Objective** | **Preconditions** | **Test Steps** | **Expected Result** |
| TC001\_Verify\_Access\_to\_PIM\_Tab | Ensure that users with the correct permissions can access the PIM tab. | User has a valid login with access to the PIM module. | 1. Log in to the OrangeHRM application.2. Navigate to the PIM tab in the main menu. | User successfully accesses the PIM tab without any errors. |
| TC002\_ Add\_New\_Employee | Verify that a new employee can be added through the PIM tab. | User is on the PIM tab with the necessary permissions to add employees | 1. Click on "Add Employee" in the PIM tab. 2. Enter all required fields (e.g., first name, last name, employee ID). 3. Upload a profile picture and enter additional details. 4. Click "Save." | New employee is added to the employee list, and the entered information is saved successfully. |
| TC003\_Search\_for\_Existing\_Employee | Verify that the search functionality in the PIM tab works as expected. | At least one employee is already added to the system. | 1. Go to the PIM tab. 2. Enter an existing employee's name or ID in the search field. 3. Click "Search." | The system displays the details of the searched employee, matching the criteria provided. |
| TC004\_Edit\_Employee\_Information | Verify that users can edit an employee's details. | At least one employee exists in the system, and the user has permission to edit employee information. | 1. Navigate to the PIM tab and search for the employee. 2. Select the employee from the search results. 3. Click "Edit" and modify employee details (e.g., job title, department). 4. Click "Save." | The employee’s information is updated in the system and reflects the new details. |
| TC005\_Delete\_Employee\_Record | Verify that an employee record can be deleted from the system. | At least one employee exists in the system, and the user has permission to delete employee records. | 1. Go to the PIM tab and locate the employee to be deleted. 2. Select the employee checkbox. 3. Click "Delete" and confirm the deletion. | The selected employee record is removed from the employee list and is no longer searchable. |
| TC\_006\_Field\_Validation\_and\_Boundary\_Testing | Verify the acceptable formats for email, phone numbers, employee name | User has a valid login with access to the PIM module. User is on the PIM tab with the necessary permissions to add employees | 1. Log in to the OrangeHRM application. 2. Navigate to the PIM tab in the main menu. 3. Click on "Add Employee" in the PIM tab. 4. Enter value in fields e.g., first name, last name, employee ID, email etc. with | Character limits are as per mentioned in the portal and email id validations are proper. |
| TC\_007\_UI/UX\_Validation | Verify alignment, visibility, and responsiveness of PIM tab elements. | User has a valid login with access to the PIM module. User is on the PIM tab. | 1. Log in to the OrangeHRM application. 2. Navigate to the PIM tab in the main menu. 3. Verify alignment, visibility, and responsiveness of PIM tab elements. | Ensure consistent styling and error message displays. |

**Test Strategy**

**Approach:**

* **Automation Framework:**
  + Use the **Page Object Model (POM)** framework with Python and Selenium.
  + Create reusable page objects for the PIM tab, encapsulating actions like login to application, navigating to PIM, and some XPATHs and other variables.
* **Testing Types:**
  + **Functional Testing:** Ensure each feature works as expected.
  + **Regression Testing:** Re-run automated test cases to verify that updates do not break existing functionalities.
  + **Boundary Testing:** Validate input fields with edge-case data.
  + **Cross-Browser Testing:** Test the PIM tab on multiple browsers (Chrome, Firefox, Edge).
* **Test Case Execution:**
  + Automate test case execution for all scenarios and maintain results in a CI/CD pipeline for frequent feedback.

**Rationale**

**Choice of Strategy:**

1. **Focus on Business-Critical Features:**
   * The PIM tab is a key feature in the HRM application, essential for employee management. Ensuring its reliability directly aligns with user needs and business goals.
2. **Automation for Reusability:**
   * Automating regression and repetitive tests reduces effort in long-term maintenance and ensures consistent test execution.
3. **Prioritization of Test Cases:**
   * Functional tests for core operations are prioritized since they form the backbone of the PIM module.
   * UI/UX tests, though less critical, are included to enhance user satisfaction and usability.
4. **Alignment with Application Use Cases:**
   * Scenarios like adding, editing, searching, and deleting employees are mapped to real-world usage patterns of HR teams.
   * Boundary tests ensure robustness in handling edge-case scenarios that end-users might encounter.
5. **Use of POM Framework:**
   * This design pattern improves maintainability and scalability, allowing tests to adapt easily to UI changes in the Orange HRM application.