# Requirement Analysis for OrangeHRM Automation Project

## 1. Project Scope and Objectives

Project Scope: Automate various functionalities in the OrangeHRM demo application, including login, job titles, pay grades, employment status, job categories, employee management, and work shifts.

Objectives:

* • Verify the accuracy of different functionalities in the OrangeHRM system.
* • Ensure that each feature can be accessed, modified, and saved successfully using automated scripts.
* • Validate the login/logout functionality for user access control.

## 2. Functional Requirements

### Login and Logout

* Ability to log in with valid credentials.
* Ensure login failure with invalid credentials.
* Verify that the dashboard loads upon successful login.
* Ensure successful logout and redirection to the login page.

### Job Title Management

* Navigate to the Job Titles page.
* Verify the list of job titles displayed.
* Add, delete, and edit job titles.

### Pay Grades

* Navigate to Pay Grades and ensure the list of grades is loaded.
* Add a new pay grade and assign currencies.
* Delete and update existing pay grades.

### Employment Status

* Access and verify Employment Status options.
* Add, delete, and update employment status records.

### Job Categories

* Navigate to Job Categories.
* Add, delete, and update job categories.
* Check for duplicate job categories to avoid redundancy.

### Employee Management

* Navigate to Add Employee page.
* Add a new employee with details (e.g., personal, job, and contact details).
* Delete an existing employee record.
* Verify details of the added employee.

### Work Shifts

* Navigate to Work Shifts page.
* Fetch the list of available work shifts.
* Add, delete, and update work shift records.

## 3. Non-Functional Requirements

* Performance: The automation should execute each operation in a reasonable amount of time (e.g., loading each page within a few seconds).
* Usability: Automation scripts should be easy to configure, maintain, and extend.
* Reliability: Scripts should handle exceptions (e.g., network issues) and validate outputs at each step.
* Security: Ensure that login credentials and other sensitive data are handled securely within the scripts.
* Compatibility: The automation should work on common browsers (like Firefox, Chrome) and their recent versions.

## 4. Technical Requirements

* Automation Framework: TestNG or Cucumber is specified as the test framework.
* Programming Language: Java, using Selenium WebDriver for browser automation.
* Configuration Management: Store URLs, login credentials, and other configuration settings in external files (e.g., .properties files accessed via File\_Utils class).
* Logging and Reporting: Generate logs for each test step and produce reports after test execution.

## 5. Defining Acceptance Criteria

* Login/Logout: Successful login with valid credentials, failed login with invalid credentials, and successful logout after each operation.
* Navigation: Each page should load with the expected title and elements.
* CRUD Operations (Create, Read, Update, Delete): For job titles, pay grades, employment statuses, job categories, employees, and work shifts, verify:  
   - Creation: New records are saved and displayed correctly.  
   - Read: Existing records are correctly loaded.  
   - Update: Edited records reflect the changes.  
   - Delete: Removed records are no longer visible.

## 6. Constraints

* Data Dependency: Test data for employee records, job titles, and pay grades should be unique or reset between tests to prevent duplicates.
* Environment Dependency: Tests should run in a stable environment, with the assumption that the OrangeHRM demo application is accessible.