

Test Plan – APC Payroll System

1. BACKGROUND

The APC Payroll System is a system designed to automate the computations and processing of employee benefits and deductions, alongside compliance with labor laws. The system aims to allow the tracking of payroll records, enhance workflow efficiency, reduce errors, and to help ensure timely salary disbursements.

2. INTRODUCTION

This test plan outlines the strategy, objectives, and scope for testing the payroll system. It serves as a guide for ensuring the system meets functional and non-functional requirements, providing a reliable platform for payroll processing.

3. ASSUMPTIONS

The APC Payroll system is assumed to:

- Be fully developed, hosted, and compliant with HR and Payroll Offices' conditions and standards.
- Have all the required and necessary documentation available for reference.
- Have available test environments properly set up and available during testing.

4. TEST ITEMS

This section outlines the functionalities and components of the APC Payroll System that are to undergo testing. The listed are necessary items that comply with the client's conditions and standards.

Test Item	Description	Test Type
User Login Functionality	Enables secure access to the payroll system with user credentials, along with restrictions/permissions, multi-factor	Functionality

	authentication and integration with the current database of APC for enhanced security.	
User Account Management	Allows HR and Payroll to create, modify, and deactivate accounts from the system.	Functionality
Payroll Records Management	Facilitates the storage and retrieval of employee payroll records, enabling users with sufficient permissions to add, edit, and archive payroll data efficiently.	Functionality
Automated Calculations	Automatically calculates salaries, taxes, bonuses, and deductions based on defined rules, ensuring accuracy and reducing manual errors in payroll processing.	Functionality
Payroll Period Discrepancies	Identifies and alerts users to discrepancies in payroll calculations for specific periods, allowing for investigation and correction before finalizing payroll.	Functionality
Benefits Tracking	Tracks benefits computations of employees.	UI/UX
Payroll Record/Slip Viewing	Provides employees with access to detailed payroll records and pay slips, promoting transparency and understanding of compensation.	UI/UX
Spreadsheet Exportation	Allows Payroll to export payroll data for reporting and analysis, facilitating easy data manipulation and sharing.	Functionality

5. FEATURES TO BE TESTED

This section outlines the functionalities and components of the APC Payroll System that are to undergo testing. The listed are necessary items that comply with the client's conditions and standards.

Feature/Requirement	Description	Module
Authentication and Authorization	Verifies user identities and grants appropriate access levels based on roles to ensure secure	Security

	system usage.	
Account Creation	Enables the creation of new employee accounts within the system.	Account Management
Account Editing	Allows editing of the employee accounts.	Account Management
Account Deactivation	Allows deactivation of employee accounts.	Account Management
Payroll Item Creation	Allows payroll to create payroll items within the system.	Payroll Item Management
Payroll Item Editing	Allows payroll to edit payroll items within the system.	Payroll Item Management
Payroll Item Archiving	Allows payroll to archive payroll items within the system.	Payroll Item Management
Payroll Automated Calculations	Automates the calculations of account variables in the system, along with the added benefits and deductions.	Payroll Item Management
Payroll Cutoff Scheduling	Facilitates payroll cutoff and submission deadlines, ensuring on-time processing salaries.	Payroll Item Management
Payroll Record/Slip Viewing	Allows viewing of employee payroll records/slip.	Employee
Spreadsheet Exportation	Allows payroll to export data into a spreadsheet.	Payroll Item Management

6. FEATURES NOT TO BE TESTED

This section clarifies the aspects of the system that will not be included in the current testing phase. Clearly stating what is out of scope helps prevent misunderstandings and aligns stakeholder expectations, ensuring that resources are dedicated to the most critical areas.

The following features are out of scope for this testing phase:

1. Authentication: because the system takes advantage existing Microsoft authentication services (i.e., Microsoft Entra ID), authentication remains outside the scope of the system.
2. Daily time record discrepancy management: currently the scope of the system focuses on payroll entry management, which leaves this complementary module out of scope.

7. APPROACH

The approach section details the testing strategies and methodologies that will be employed, such as manual and automated testing. This information is relevant as it outlines how testing will be conducted and ensures that the selected methods align with the project's needs and resources.

The approach for testing for the system is:

1. Automated Tests
2. Manual Testing

8. ITEM PASS/FAIL CRITERIA

Defining pass/fail criteria is crucial for evaluating test results. This section explains the specific conditions under which a test item is

considered successful or unsuccessful. Establishing clear criteria helps maintain objectivity in the testing process and ensures accountability.

An item is considered passable if:

1. Strictly follow expected behavior (due to having to deal with money)
2. Procedure is executed flawlessly with no hiccups
3. An output is apparent

An item is considered a failure if criteria is not met.

9. SUSPENSION/RESUMPTION CRITERIA

This section specifies the conditions under which testing may be paused and the requirements for resuming it. Clear criteria for suspension and resumption are important for managing the testing timeline and resources effectively, especially in the event of critical issues.

Testing of the system may be done without suspension/resumption due to it being a system with simple and small scope relative to modern day systems.

10. TEST DELIVERABLES

In this section, the deliverables from the testing process are listed. Identifying deliverables ensures that all team members understand what is expected and helps track progress throughout the testing lifecycle. This clarity is essential for meeting deadlines and ensuring accountability.

The following are test deliverables necessary:

1. Test Cases
2. Requirements Traceability Matrix

11. TESTING TASKS Functional tasks (e.g., equipment set up)

This section outlines the specific activities required to complete the testing process. By breaking down the tasks, it provides a roadmap for the testing team and ensures that all necessary activities are accounted for, facilitating better project management.

Testing tasks consists of:

1. Once automated tests are written, not many functional tasks beyond setting up the application environment are needed. Once the application is runnable, so are the tests, as they are set up together with the framework.

12. ENVIRONMENTAL NEEDS

Detailing the environmental requirements for testing helps ensure that the necessary infrastructure and resources are in place. This section is relevant as it minimizes potential disruptions during testing, leading to more efficient execution and accurate results.

The testing will require:

1. Authentication service (Azure Directory)
2. Application server with Docker

13. RESPONSIBILITIES

This section defines the roles and responsibilities of each team member involved in the testing process. Clearly outlining who is accountable for specific tasks is essential for ensuring accountability and effective collaboration among team members.

The following have responsibilities to uphold:

1. Devs set up tests and reports during development
2. Hand-off transfers it client (APC), who can just run the tests. Since they have Laravel experience, they can continue to develop and test according to their operations.

14. STAFFING & TRAINING

This section highlights the training and staffing needs for the testing process. Ensuring that team members are adequately trained on the system and testing tools is crucial for achieving high-quality results and minimizing errors during testing.

The following are crucial staff and training required:

1. Admins experienced in deploying and maintaining Laravel projects, or developers experienced in developing Laravel projects.

15. SCHEDULE

The schedule provides a timeline for the testing process, outlining key milestones and deadlines. This section is important for managing expectations, ensuring that testing stays on track, and coordinating efforts among team members.

Automated tests are written alongside new features, so they should be in sync.

16. RESOURCES

Identifying the resources needed for testing helps ensure that all necessary tools, data, and personnel are available. This section is relevant for planning and budgeting, enabling the team to conduct testing efficiently and effectively.

The following are resources used to test the product:

1. Laravel Framework Automated Testing

17. RISKS & CONTINGENCIES

This section outlines potential risks to the testing process and strategies for mitigating them. Identifying risks in advance helps prepare the team for challenges and ensures that appropriate contingency plans are in place, enhancing the likelihood of a successful testing outcome.

The following are risks and contingencies possible:

1. Incomplete requirements leading to missed test scenarios
2. Resource availability impacting the testing timeline
3. Mitigation strategies will be put in place, such as regular communication and review meetings.

18. APPROVALS

The approvals section identifies who must sign off on the test plan and its deliverables. This is essential for ensuring accountability and formalizing the agreement among stakeholders about the testing approach and expected outcomes, ultimately fostering collaboration and trust in the process.

Approval of the test plan and its deliverables will be required from:

1. Project Manager
2. Client
3. Stakeholders