Software Requirements Specification

for

APC Payroll

Version 3.0

Prepared by

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Contents

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
Draft v.01	Alexandra Noynay	Draft fundamental work document.	09/25/24
Draft v.02	Alexandra Noynay	Another Fundamental Draft (Rough)	10/02/24
Draft v.03	Alexandra Noynay	Populated	10/16/24

1 Introduction

1.1 Document Purpose

This document outlines the software requirements for the Asia Pacific College (APC) Payroll System, specifically detailing the features and functionalities included in the current release. The purpose of this Software Requirements Specification (SRS) is to define the system's capabilities, user interactions, and operational constraints. It serves as a guide for developers, testers, and stakeholders by providing a comprehensive understanding of what the payroll system must accomplish. This includes processing employee salaries, calculating deductions, generating pay slips, and maintaining records of payroll-related data.

The scope of the APC Payroll System covered by this SRS focuses on key payroll functionalities. It includes core subsystems such as employee information management, salary computation, tax and benefit deductions, and the generation of reports for payroll administration.

1.2 Product Scope

The APC Payroll System is a software solution designed to automate and streamline payroll processes at Asia Pacific College. Its primary purpose is to accurately compute employee salaries, apply deductions for taxes and benefits, and generate pay slips. The system also maintains detailed records of employee earnings, tax contributions, and other payroll-related data, ensuring compliance with internal policies and government regulations. By automating payroll functions, the system minimizes human error, reduces the time spent on manual calculations, benefits and simplifies reporting tasks for payroll administrators.

1.3 Intended Audience and Document Overview

This Software Requirements Specification (SRS) document is intended for a variety of readers, each with a different focus and use for the information contained within. Primarily, this document is targeted at the client, who is the Asia Pacific College (APC) administration, as well as the professor overseeing the project. The client will use this document to ensure that the system’s requirements align with their needs for the payroll process, while the professor will review it for academic completeness and technical accuracy.

For developers, the SRS outlines detailed functional and non-functional requirements that will guide the design and implementation of the system. Testers will reference the document to define test cases that ensure all features meet the specified criteria. Project manager and documentation writers can use the SRS to ensure that milestones, deliverables, and system documentation align with the client's expectations.

1.4 Definitions, Acronyms and Abbreviations

Abbreviation	Definition
DTR	Daily Time Record
OT	Overtime
OB	Overbreak

1.5 Document Conventions

This document follows the IEEE formatting requirements. Which uses Arial font size 11, or 12 throughout the document for text and underline for comments. Document text is single spaced and maintain the 1" margins.

1.6 References and Acknowledgments

https://github.com/vuejs/
https://github.com/laravel Laravel HERD

More to be added

2 Overall Description

2.1 Product Overview

The APC Payroll System is a new, self-contained software product designed specifically for Asia Pacific College to address their payroll processing needs. It replaces any existing manual or semi-automated systems currently in use for payroll management, providing a more efficient, accurate, and scalable solution. As a standalone system, the APC Payroll System will integrate seamlessly with other administrative systems, such as employee databases and financial reporting tools, while maintaining a strong focus on the automation of salary calculations, tax deductions, and benefit allocations.

The system operates within a larger administrative framework, interfacing with key external components like the HR system for retrieving employee data (personal details, job roles, and benefits) and the accounting system for financial reporting and budget alignment.

~~2.2~~ Product Functionality

The APC Payroll System provides comprehensive functionality for managing employee payroll. It automates salary calculations, tax and benefits deductions, and generates pay slips for employees. The system tracks attendance, overtime, leave, and other payroll-related data, ensuring accurate and timely payments. Payroll administrators can access employee profiles, configure deduction rules, and generate detailed reports for auditing and compliance purposes. Additionally, allowing payroll administrators and managers to approve DTR adjustments. By integrating with HR and accounting systems, it ensures the payroll process is seamless and error-free.

2.3 Design and Implementation Constraints

The system will also be constrained by existing hardware infrastructure, limiting memory usage and processing times to ensure smooth performance on standard office computers. Interfaces with HR and accounting systems must be compatible with the hardware. Furthermore, the system must follow institutional security policies, including data encryption, role-based access control, and compliance with privacy regulations.

2.4 Assumptions and Dependencies

The design and functionality of the APC Payroll System rely on certain assumptions and dependencies. It assumes the HR and accounting systems are already in place and functional, providing accurate employee data and accepting payroll information. It also depends on the availability of network infrastructure to enable communication between different departments and external systems, such as banks for processing salary payments. The project also assumes that the college will provide the necessary hardware and support resources for implementation, and that users have basic computer literacy to navigate the system.

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

The APC Payroll System will feature an intuitive user interface designed to facilitate ease of use for different user roles. Payroll administrators will have access to a dashboard displaying key metrics such as pending approvals, total salary amounts, and employee records. Employees can view their pay slips, update personal information, and access historical salary data. The interface will be designed for clarity and simplicity, with clear navigation menus and filters to allow users to quickly retrieve the information they need. The system will be accessible via desktop browsers.

3.1.2 Hardware Interfaces

The system will interact with the college's desktop computers and servers, which host the HR and accounting systems. The payroll system must communicate with external banking systems to process salary disbursements. All hardware interactions will be facilitated through secure connections and standardized protocols to ensure that the payroll data flows accurately between the system and the external hardware components. The hardware interfaces must ensure compatibility with local printers for printing pay slips and other documents.

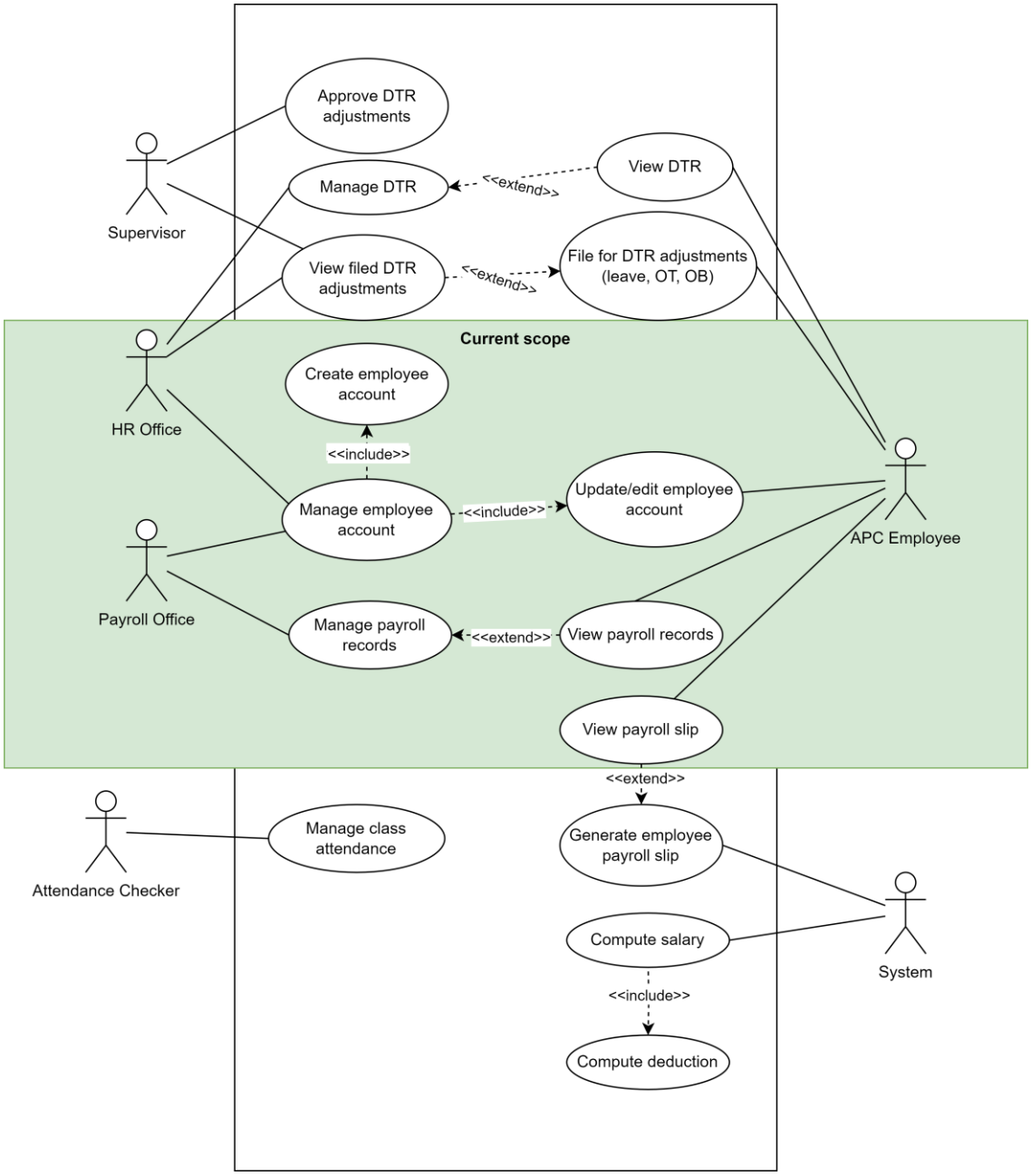
3.1.3 Software Interfaces

The APC Payroll System will interface with multiple software applications, particularly the HR system and the accounting system. Data from the HR system, such as employee details, salary rates, and benefit information, will be automatically imported into the payroll system. Similarly, the payroll system will transmit salary details to the accounting system for financial reporting. The system will also interact with taxation software for compliance with legal tax deductions. Web services like Microsoft Azure will be employed for external data exchange, ensuring secure and efficient integration with other systems.

3.2 Functional Requirements

The system must provide core functionalities such as employee data management, payroll calculations, tax and benefits deductions, and salary disbursement. Additionally, it should generate detailed payroll reports for administrators and auditors. The system must support role-based access, allowing different levels of access and approval for payroll-related tasks. It should also provide automated notifications to remind users of deadlines and pending actions. The system must also maintain accurate, up-to-date records of all payroll operations and store them securely for auditing purposes.

3.3 Use Case Model



3.3.1 Use Case #1 (Insert the USE CASE DIAGRAM)

Author – Aliyah Kristie Lopez, James Alfafara, and Jethro Rae Garcia

Purpose - What is the basic objective of the use-case. What is it trying to achieve?

Requirements Traceability – Identify all requirements traced to this use case

Priority - What is the priority. Low, Medium, High. Importance of this use case being completed and functioning properly when system is depolyed

Preconditions - Any condition that must be satisfied before the use case begins

Post conditions - The conditions that will be satisfied after the use case successfully completes

Actors – Actors (human, system, devices, etc.) that trigger the use case to execute or provide input to the use case

Extends – If this is an extension use case, identify which use case(s) it extends

Flow of Events

1. Basic Flow - flow of events normally executed in the use-case
2. Alternative Flow - a secondary flow of events due to infrequent conditions
3. Exceptions - Exceptions that may happen during the execution of the use case

Includes (other use case IDs)

Notes/Issues - Any relevant notes or issues that need to be resolved

3.3.2 Use Case #2

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4 Other Non-functional Requirements

4.1 Performance Requirements

The APC Payroll System must be capable of processing payroll for the entire workforce of the college efficiently, with minimal delays. The system should handle up to 500 employee records simultaneously, ensuring that payroll processing for all employees is completed within a reasonable timeframe, typically within 30 minutes during peak payroll periods. The system must support high availability, ensuring that users can access it during critical periods such as payroll finalization dates. It must also perform data backup operations regularly to prevent data loss.

4.2 Safety and Security Requirements

Security is crucial for the APC Payroll System due to the sensitive nature of payroll data. The system must implement multi-factor authentication to verify user identities before accessing the system. All personal and payroll data should be encrypted both at rest and during transmission. Role-based access controls must ensure that only authorized personnel can view or modify payroll information. Regular security audits and updates must be conducted to identify and fix vulnerabilities. The system should also comply with data privacy regulations, including the Security Policies, ensuring that employee data is handled securely.

4.3 Software Quality Attributes

The APC Payroll System must adhere to high standards of software quality, including reliability, usability, maintainability, and scalability. Reliability ensures that the system processes payroll data accurately and without failure, even under high usage. Usability is critical, as the system will be used by both technical and non-technical staff; the interface must be simple and intuitive. Maintainability ensures that future updates or system changes can be made without disrupting operations, while scalability guarantees that the system can accommodate a growing number of employees as the college expands.

Appendix A – Data Dictionary/ERD

Appendix B - Group Log

processing (11th, 26th).

October 11: Clarification Meeting with the APC Payroll and Sir Jojo

Appendix C – Test Plan/Test Cases