Software Requirements Specification (SRS)

Batch Payroll Application

1. Introduction:

1.1 Purpose

The Batch Payroll Application manages employee payments for a company, ensuring employees are paid accurately and on time based on their employment type and payment method. It processes salaries, commissions, timecards, and deductions.

1.2 Scope

This system supports payroll processing for hourly, salaried, and commission-based employees. It calculates payments considering hours worked, commissions, and union deductions, and supports multiple payment delivery methods.

1.3 Definitions, Acronyms, and Abbreviations

- **Paymaster:** The person responsible for distributing paychecks held for pickup.
- **Commission:** Percentage of sales paid to commission-based employees.
- **Union Dues:** Regular fees deducted from union members' paychecks.
- **Time card:** Record of hours worked submitted by hourly employees.
- **Direct Deposit:** Electronic transfer of salary into a bank account.

1.4 References

- IEEE Standard 830-1998: IEEE Recommended Practice for Software Requirements Specifications
- Company payroll policy documents

1.5 Overview

This document outlines the functional and non-functional requirements for processing payroll for various employee types, including payment calculations, deductions, and multiple payment methods.

2. Overall Description:

2.1 Product Perspective

The Batch Payroll Application is a standalone system interfacing with a company database storing employee records, time cards, sales receipts, and deduction data. It processes payroll in batch mode on designated days.

2.2 Product Functions

- Process payroll for hourly, salaried, and commission-based employees.
- Calculate overtime payments for hourly employees.
- Process sales commissions for commission-based employees.
- Deduct union dues and service charges automatically.

- Generate payment records and handle payment delivery methods.

2.3 User Characteristics

- **Payroll Administrator:** Personnel responsible for managing payroll processing and reviewing reports.
- **Employees:** The recipients of payroll processing (no direct interaction with system).

2.4 Constraints

- Payroll processing runs once daily on working days only.
- Payments occur according to specific schedules per employee type.
- Accurate date handling is critical for correct payment periods.

2.5 Assumptions and Dependencies

- Employee records, time cards, sales receipts, and union dues data are correctly maintained and up to date.
- The company's banking and mailing systems handle payment delivery outside this system.
- The payroll calendar and holidays are pre-configured.

3. Specific Requirements:

3.1 Functional Requirements

Hourly Employees:

- FR1: The system shall pay hourly employees based on their hourly rate stored in their record.
- FR2: The system shall process daily time cards submitted with date and hours worked.
- FR3: The system shall calculate overtime pay at 1.5 times the hourly rate for hours worked over 8 hours per day.
- FR4: Hourly employees shall be paid every Friday.

Salaried Employees:

- FR5: The system shall pay salaried employees a fixed monthly salary stored in their record.
- FR6: Salaried employees shall be paid on the last working day of the month.

Commission-Based Employees:

- FR7: The system shall process commission-based employees as salaried employees plus commissions on sales.
- FR8: The system shall accept sales receipts with date and sale amount submitted by commission-based employees.
- FR9: The system shall calculate commissions based on the commission rate stored in the employee record.
- FR10: Commission-based employees shall be paid every other Friday.

Payment Methods:

- FR11: The system shall support payment by mailed paycheck to a specified postal address.
- FR12: The system shall support payment by paycheck held for pickup by the Paymaster.

- FR13: The system shall support direct deposit payment to a specified bank account.

Union Members:

- FR14: The system shall automatically deduct weekly union dues stored in the employee record from pay.
- FR15: The system shall deduct additional union service charges in the next pay cycle after they are assessed.

System Operation:

- FR16: The system shall run payroll processing once every working day.
- FR17: The system shall pay employees according to their specified payment schedule.
- FR18: The system shall generate payments covering the period from the last pay date up to the current pay date.

3.2 System Features

- SF1: Batch processing of payroll on designated days.
- SF2: Integration with employee records database.
- SF3: Timecard and sales receipt processing.
- SF4: Automatic deduction processing for union dues and charges.
- SF5: Payment record generation and reporting.

3.3 Interface Requirements

- Interface with employee database for retrieving and updating payroll information.
- User interface for payroll administrators to initiate processing and view reports.
- Interface to banking and mailing systems (external) for payment delivery.

4. Non-Functional Requirements:

4.1 Performance Requirements

- Payroll processing for all employees shall complete within 2 hours of system start.
- System shall handle up to 10,000 employee records without performance degradation.

4.2 Security Requirements

- Payroll data access shall be restricted to authorized personnel only.
- Data integrity shall be maintained to prevent unauthorized changes to payroll information.

4.3 Reliability

- The system shall ensure accurate payment calculations and prevent duplicate payments.
- The system shall log all processing activities for audit purposes.

4.4 Maintainability

- The system shall allow easy update of payment schedules and rates.
- Support for adding/removing employees or changing employee status without downtime.

5. Other Supporting Information:

5.1 Appendices

- Sample payroll report format
- Payment schedule calendar

5.2 Index

- Employee types
- Payroll processing
- Payment methods
- Union deductions
- System operations

DIAGRAM: