Software Firm Management System

Some Use Cases



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**Submitted by:**

Muhammad Hassan Raza 2024-CS-213

**Supervised by:**

Nazeef ul Haq

**Course:**

CSC-104 Database Systems

Department of Computer Science

**University of Engineering and Technology**

**Lahore, Pakistan**

# Use Case: Processing Salaries and Bonuses

## Scope:

Software Firm Management System

## Level:

User goal

## **Primary Actor:**

Admin

## Stakeholders and Interests:

#### Admin:

* + Wants to accurately process compensation while complying with regulations
  + Needs to maintain audit trails for all payments

#### Employee:

* + Wants correct payments with proper tax deductions
  + Requires clear payment breakdowns

#### Finance Department:

* + Needs accurate records for accounting
  + Requires tax documentation

#### Government Tax Authorities:

* + Requires proper tax withholding and reporting
  + Needs timely tax deposits

#### Auditors:

* + Need verifiable payment records
  + Require compliance documentation

## Preconditions:

1. Admin has payroll processing privileges
2. Employee records and salary structures exist
3. Current tax tables are loaded in the system

## Postconditions:

1. Salaries processed with proper tax deductions
2. Payment records and tax documents updated
3. Financial reports reflect transactions
4. Tax authorities notified as required

## Main Success Scenario:

1. Admin navigates to payrol processing
2. System displays salary period and verification checks
3. Admin selects employees for processing
4. System calculates:
   * Base salaries
   * Bonuses
   * Tax withholdings (federal/state/local)
   * Other deductions
5. Admin reviews and approves calculations
6. System:
   * Generates pay slips
   * Updates financial records
   * Creates tax filings
   * Records audit trail
7. Admin initiates bank transfers
8. System marks payroll as completed

## Extensions:

#### 3a. New employee without tax forms:

1. System flags incomplete documentation
2. Admin pause the processing for this employee
3. HR notifies employee to submit forms
4. Process resumes when forms are submitted

#### 5a. Tax calculation difference:

1. System flags variance from previous periods
2. Admin verifies against current tax tables
3. System logs justification for variance

#### 6a. Last-minute employee termination:

1. System detects status change
2. Flags for special processing
3. Calculates final paycheck
4. Requires additional approvals

#### 7a. Bank transfer failure:

1. System receives rejection notice
2. Rolls back transaction
3. Alerts admin and finance
4. Initiates manual resolution process

#### 8a. Quarterly tax filing due:

1. System detects filing deadline
2. Generates required forms
3. Requires admin review and e-filing
4. Confirms submission to authorities

## Special Requirements:

1. Must comply with current tax laws (updated annually)
2. Supports multiple tax jurisdictions (federal/state/local)
3. Maintains 7-year audit trail for all payments
4. Two-factor authentication for payment authorization

## Technology Considerations:

1. Integration with government e-filing systems
2. Digital tax table updates
3. Automated tax deposit scheduling

## Frequency of Occurrence:

* Salaries: Monthly/Biweekly
* Tax filings: Quarterly/Annually
* Bonus payments: As awarded

# Use Case: Managing Service Technologies

Scope:

Software Firm Management System

Level:

User goal

Primary Actor:

Admin

## Stakeholders and Interests:

#### Admin:

* + Wants to maintain an up-to-date list of technologies used in services
  + Needs to ensure accurate associations between services and technologies
  + Requires audit logs for changes

#### Employees:

* + Need correct technology listings to communicate with clients
  + Depend on accurate tech-stack info for project planning

#### Customers:

* + Want transparency about technologies used in services

#### Developers/Technical Team:

* + Need clarity on supported technologies for training and hiring

#### Auditors/Compliance:

* + Require documentation of technology changes for governance

## Preconditions:

1. Admin is logged in with sufficient privileges
2. At least one service exists in the system
3. Technology management module is accessible

## Postconditions:

1. New technology is added/updated/removed from the system
2. Service-technology associations are correctly maintained
3. Change logs are recorded for audit purposes

## Main Success Scenario:

1. Admin navigates to **"Service Technologies"** section
2. System displays:
   * List of existing technologies
   * Services they are associated with
   * Options to **Add/Edit/Remove**
3. Admin chooses to **Add a New Technology**
4. System prompts for Technology name (e.g., "React.js")
5. Admin enters details and confirms
6. System validates and stores the new technology
7. Admin associates the technology with relevant services
8. System updates service-technology mappings
9. System logs the change (who, when, what)
10. Admin receives confirmation

## Extensions (Alternate Scenarios):

#### 3a. Technology already exists:

1. System detects duplicate entry
2. Displays warning: *"This technology already exists."*
3. Suggests editing instead of adding new
4. Admin chooses to **Edit** instead

#### 4a. Admin leaves required fields blank:

1. System validates inputs
2. Flags missing fields (e.g., "Technology name is required")
3. Prevents submission until corrected

#### 7a. Admin removes a technology still in use:

1. System checks if technology is linked to any services
2. Displays warning: *"This technology is used in [X] services. Remove associations first."*
3. Admin must either:
   * **Disassociate** from services before deletion
   * **Cancel** the deletion

#### 7b. Technology is obsolete but needed for legacy projects:

1. Admin marks it as **"Deprecated"** instead of deleting
2. System hides it from new service associations but keeps historical records

## Special Requirements:

1. **Version Tracking** (e.g., "Node.js v18 vs. v20")
2. **Deprecation Warnings** (for outdated tech)
3. **Integration with HR Skills Database** (to track employee expertise)
4. **Multi-language Support** (for international teams)

## Technology Considerations:

* Allows **filtering** (e.g., "Show only AI-related technologies")
* **Auto-suggestion** for faster data entry

## Frequency of Occurrence:

* **Regular update** (monthly/bi-monthly)
* **Bulk change** (during tech stack overhauls)