

UE21CS351A: Database Management System

MINI PROJECT USER REQUIREMENT SPECIFICATION

Table of Contents

1. Introduction

Purpose of the Project:

The purpose of this project is to develop a comprehensive database system for managing employee reimbursements within companies. This system aims to streamline the reimbursement process, improve transparency, and provide efficient tracking of expenses for both employees and managers.

Scope of the Project:

The scope of this project includes the design, development, and implementation of a robust database system tailored specifically for reimbursement management. It encompasses functionalities such as employee registration, reimbursement request submission, approval workflows, expense tracking, and reporting. The system will support various reimbursement categories including cabs, food, rent, insurance, and other relevant expenses.

2. Project Description

Project Overview:

The project involves the creation of a centralized database that will serve as the backbone for managing reimbursement processes within companies. It will facilitate seamless communication between employees, managers, and the finance department, ensuring a smooth and transparent reimbursement experience.

Major Project Functionalities:

- Employee Registration and Profile Management
- Submission of Reimbursement Requests
- Approval Workflow for Managers
- Expense Tracking and Reporting
- Document Attachment for Verification
- Payment Processing and Tracking
- Notifications for Request Updates
- User Authentication and Authorization

3. System Features and Function Requirements

System Feature 1: Employee Registration and Profile Management

- Description: This feature allows employees to register in the system and create their profiles with essential details.

- Functional Requirement:
 - Capture basic information including First Name, Last Name, Email, Department, Position, Hire Date, and Salary.
 - Generate a unique Employee ID for each registration.
 - Validate email addresses for uniqueness and format.

System Feature 2: Submission of Reimbursement Requests

- Description: Employees can submit reimbursement requests for various expense categories.
- Functional Requirement:
 - Select the expense category (e.g., Cabs, Food, Rent, Insurance).
 - Enter the amount requested and provide a description of the expense.
 - Attach relevant documents (e.g., receipts, invoices) for verification.

System Feature 3: Approval Workflow for Managers

- Description: Managers review and approve/deny reimbursement requests submitted by employees.
- Functional Requirement:
 - Receive notifications for pending approval requests.
 - View request details including employee information, expense category, and amount requested.
 - Make an approval decision and provide comments if necessary.

System Feature 4: Expense Tracking and Reporting

- Description: The system tracks approved expenses and provides reporting capabilities.
- Functional Requirement:
 - Record approved requests with associated details (Request ID, Category, Amount, etc.).
 - Generate reports based on various criteria (e.g., by employee, by category, by time period).

System Feature 5: Document Attachment for Verification

- Description: Allows employees to attach supporting documents for expense verification.
- Functional Requirement:
 - Support file uploads in common formats (e.g., PDF, image files).
 - Associate documents with the corresponding reimbursement request.

System Feature 6: Payment Processing and Tracking

- Description: Manages the processing and tracking of approved reimbursements.
- Functional Requirement:
 - Record payment details including method (e.g., Direct Deposit, Check) and date.
 - Track payment status (e.g., Paid, Pending).

System Feature 7: Notifications for Request Updates

- Description: Provides notifications to employees and managers for request status updates.
- Functional Requirement:
 - Send notifications for request submission, approval, and payment processing.
 - Allow users to mark notifications as read.

System Feature 8: User Authentication and Authorization

- Description: Ensures secure access control to the system.
- Functional Requirement:
 - Implement user authentication using secure protocols (e.g., username/password).
 - Define role-based access control (e.g., Employee, Manager, Admin) with specific permissions.