

## EXPENSE MANAGEMENT SYSTEM REQUIREMENTS

### **User Authentication and Authorization**

- ☐ The system must authenticate administrators before granting access to sensitive functionalities.
- ☐ Administrators should have different levels of access based on their roles and permissions.

### **Main Menu Navigation**

- ☐ The system must provide a user-friendly main menu interface for easy navigation to different modules and functionalities.

### **Expense Tracking**

- ☐ The system should allow users to input new expenses, specifying details such as amount, date, and category.
- ☐ Users should be able to view and edit existing expense records.

### **Expense Reporting**

- ☐ The system should generate comprehensive reports summarizing expenses over specific periods, categorized by department or project.
- ☐ Reports should be customizable and exportable in various formats for further analysis.

### **Budget Allocation**

- ☐ The system must support the allocation and management of budgets for different departments or projects.
- ☐ Administrators should be able to adjust budget allocations and track expenditures against allocated budgets.

### **Transaction Deletion**

- ☐ Authorized users should have the ability to delete recorded transactions, with appropriate permissions and logging mechanisms in place to ensure data integrity.

## Error Handling

- ☐ The system must handle errors gracefully, providing informative error messages to users and logging error details for troubleshooting purposes.

## Database Integration

- ☐ The system should integrate with a database to persistently store and retrieve data related to expenses, budgets, user credentials, and transaction logs.

## Graphical User Interface (GUI)

- ☐ The system should have a user-friendly GUI that allows users to interact with different functionalities seamlessly.

## Security

- ☐ The system must implement security measures to protect sensitive data and functionalities, including password encryption and access control.

## User Roles and Permissions

- ☐ The system must enforce role-based access control, granting appropriate permissions to users based on their roles and responsibilities.

## Input Validation

- ☐ The system should validate user inputs to prevent data corruption and ensure data integrity, checking for format compliance and avoiding injection attacks.

## System Integration

- ☐ The system should seamlessly integrate different classes and functionalities to provide a unified user experience, allowing data sharing and communication between components.