Sure, creating a complete Software Requirements Specification (SRS) for a Multilocation Sumago Expense Management System involves detailing the system's functionality, performance, design constraints, and other aspects. Below is a comprehensive SRS for a Multilocation Expense Management System:

Software Requirements Specification (SRS) for Multilocation Sumago Expense Management System

1. Introduction

1.1 Purpose

The purpose of the Multilocation Expense Management System is to provide an efficient and centralized platform for managing expenses across multiple locations within an organization.

1.2 Scope

The system will enable users to submit, review, approve, and track expenses incurred by employees across various locations. It will integrate with financial systems and provide real-time insights into expenses.

1.3 Document Conventions

- **Bold Text**: Represents user interface elements or system components.
- Code Font: Represents code snippets or database fields.

2. System Overview

2.1 System Description

The Multilocation Expense Management System is a web-based application that allows employees to submit expense reports, managers to review and approve expenses, and administrators to generate reports for analysis.

2.2 System Architecture

The system will be built using a three-tier architecture:

- **Presentation Layer**: Web-based user interface accessible via browsers.
- **Application Layer**: Business logic implemented using a server-side language (e.g., Python, Java).
- **Data Layer**: Database for storing expense-related information.

3. Functional Requirements

3.1 User Roles

1. **Employee**
   - Submits expense reports with supporting documents.
   - Tracks the status of submitted reports.
2. **Manager**
   - Reviews and approves/denies expense reports.
   - Sets spending limits for employees.
3. **Administrator**
   - Manages user accounts and permissions.
   - Generates reports on expenses across locations.

3.2 Expense Submission

1. Employees can submit expenses by providing details such as date, category, amount, and supporting receipts.
2. The system should support the upload and storage of receipt images.

3.3 Expense Approval

1. Managers receive notifications of submitted expenses.
2. Managers can review and approve/deny expenses.
3. Approvers can add comments and request additional information.

3.4 Spending Limits

1. Managers can set spending limits for individual employees or teams.
2. The system should prevent expense submissions that exceed predefined limits.

3.5 Reporting

1. Administrators can generate reports based on location, department, or time period.
2. Reports should include total expenses, trends, and exceptions.

3.6 Integration

1. The system should integrate with the organization's financial systems for seamless data transfer.

4. Non-Functional Requirements

4.1 Performance

1. The system should support concurrent access by multiple users.
2. Response time for common operations should be within 2 seconds.

4.2 Security

1. User authentication and authorization should be implemented.
2. Data transmission should be encrypted using HTTPS.

4.3 Reliability

1. The system should have a backup and recovery mechanism.
2. The availability should be 99.9% during business hours.

4.4 User Interface

1. The user interface should be intuitive and responsive.
2. The system should be accessible from different devices and screen sizes.

5. Constraints

5.1 Regulatory Compliance

1. The system should comply with relevant data protection and privacy regulations.

5.2 Technology Constraints

1. The system should be developed using [specified technologies and frameworks].

6. Glossary

- **Expense Report**: A document submitted by an employee detailing expenses incurred.
- **Approval Workflow**: The process through which expense reports are reviewed and approved.

7. Revision History

Version	Date	Description
1.0	2023-XX-XX	Initial version of the SRS

8. Approval

[Signatures and date of approval]

This is a template, and you may need to tailor it based on the specific requirements of your organization and the technologies you choose to implement. Additionally, consider involving stakeholders in the review and approval process to ensure that the SRS accurately reflects their needs.

Certainly! Below is an overview of the complete system flow for an Expense Management System, detailing the main processes from expense submission to approval and reporting.

Expense Management System Flow

1. User Registration and Login

1. **User Registration:**
   - Employees, managers, and administrators register with the system.
   - Required information includes username, password, email, and role (employee, manager, administrator).
2. **User Login:**
   - Users log in using their credentials.
   - Authentication is performed to verify user identity.

2. Expense Submission

1. **Expense Entry:**
   - Employees log in and enter details of expenses incurred.
   - Information includes date, category, amount, and optional notes.
2. **Receipt Upload:**
   - Users upload supporting receipts/images for each expense.
   - The system stores receipt images securely.
3. **Expense Validation:**
   - The system validates entered data and checks for policy compliance.
   - If valid, the expense report is submitted for approval.

3. Manager Review and Approval

1. **Notification:**
   - Managers receive notifications of pending expense reports.

- Notifications include a summary of expenses and a link to the report.

2. **Expense Review:**
   - Managers log in and review details of the expense report.
   - They can view receipts, check policy compliance, and add comments.
3. **Approval/Denial:**
   - Managers approve or deny the expense report.
   - If denied, managers provide reasons for rejection.
4. **Communication:**
   - System notifies the employee of the decision.
   - In case of denial, employees may revise and resubmit the expense report.

4. Administrator Functions

1. **User Management:**
   - Administrators manage user accounts, roles, and permissions.
   - They can add, deactivate, or modify user accounts.
2. **Spending Limits:**
   - Administrators set spending limits for employees or teams.
3. **Reports Generation:**
   - Administrators generate reports based on location, department, or time period.
   - Reports include total expenses, trends, and exceptions.

5. Integration with Financial Systems

1. **Data Transfer:**
    - The system integrates with the organization's financial systems.
    - Expense data is transferred securely for accounting and reimbursement.

6. User Dashboard

1. **Status Tracking:**
    - Employees can track the status of their submitted expense reports.
    - They receive real-time updates on approvals or denials.
2. **Expense History:**
    - Users can view their historical expense data.
    - This includes approved, pending, and denied expenses.

7. Reporting and Analysis

1. **Customized Reports:**
    - Users can generate customized reports based on specific criteria.
    - Reports provide insights into spending patterns and trends.
2. **Exception Handling:**
    - Reports highlight exceptions such as policy violations or high expenditures.

8. System Maintenance

1. **Backup and Recovery:**
    - Regular backups of the system data are performed.
    - A recovery mechanism is in place in case of data loss.

2. **System Updates:**
   - The system undergoes periodic updates to add new features and address security vulnerabilities.

This system flow provides an overview of the key processes involved in a Multilocation Expense Management System, from user registration to expense submission, approval, reporting, and system maintenance. The flow can be adapted and extended based on specific organizational requirements and additional functionalities.

1. Admin
2. User
3. Location Head

Admin

a. Admin will add the Location Master
    i. Location ID (Auto)
    ii. Location Name
    iii. Username
    iv. Password
    v. Active/InActive
b. Admin will add the Department
    i. Department ID (Auto)
    ii. Department Name
    iii. Active/InActive
c. Admin will add the Expense Category
    i. Expense Category ID (Auto)
    ii. Expense Category Name
    iii. Active/InActive
d. Admin will add the Expense Sub-Category
    i. Expense Category ID (Auto)
    ii. Select Expense Category Name (Drop Down)
    iii. Expense Sub Category Name
    iv. Active/InActive
e. Admin will add the Expense Head
    i. Expense Head ID (Auto)
    ii. Select Expense Category Name (Drop Down)
    iii. Select Expense Sub-Category Name (Drop Down)
    iv. Expense Head Name
    v. Active/InActive

f. Admin will add the Employee Record
    i. Employee ID (Auto)
    ii. Employee Number
    iii. Employee Name
    iv. Department Name (Drop Down)
    v. Location Name (Drop Down)
    vi. PAN Card
    vii. Aadhar Number
    viii. Email ID
    ix. Mobile Number
    x. Active/InActive
g. Admin will add the User Master
    i. User ID (Auto)
    ii. Department Name (Drop Down)
    iii. Location Name (Drop Down)
    iv. Employee Name (Drop Down)
    v. User Name
    vi. Password
    vii. Confirm Password
    viii. Active/InActive
h. Admin will get an expense history
    i. Approved
    ii. Pending
    iii. No Action

Vendor/Supplier Entry Form

1. Company Information

- Company Name:
    - [Text field]
- Legal Business Name (if different):
    - [Text field]

2. Contact Information

- Contact Person:
    - [Text field]
- Position:
    - [Text field]
- Email Address:
    - [Email input field]
- Phone Number:
    - [Phone number input field]
- Address:
    - [Text area for the business address]

3. Financial Information

- Bank Name:
    - [Text field]
- Account Name:
    - [Text field]
- Account Number:

    - [Text field]

4. Tax Information

- GST Number:
    - [Text field]

5. Additional Notes

- [Text area for any additional notes or comments]

Users

i. User will add his expenses daily

    i. Expense ID
    ii. Select Department Name (Drop Down)
    iii. Location Name (Drop Down)
    iv. User Name/Employee Name (Based on Session ID)
    v. Select Category Name (Drop Down)
    vi. Select Sub-Category Name (Drop Down)
    vii. Select Expense Head (Drop Down)
    viii. Select Expense Date (Default Current)
    ix. Expense Name
    x. Description
    xi. Amount
    xii. Upload Receipt

- Once user/employee submit the expense, it will go to his location head
- Location head will check and mark it as verified, if he marked as verified, then It will be shown to the Admin under the location head tab
- Location head can also reject the request, but he has to submit the reason for not being approve the request
- Once location head approve or reject the request then user will get the notification for that request

Location Head

j. Location head will approve the expenses under his location, send by his location employee
k. Once he approve the expense then admin will make the payment of that
l. If the location head will reject the expenses, he will has to give the reason for not being approving that request
m. Location head will add his expenses also
n. Location head will get an expense history
    i. Approved
    ii. Pending
    iii. No Action

Expense Form for employee

- Employee ID: [Auto-populated from the user profile]
- Employee Name: [Auto-populated from the user profile]
- Department: [Dropdown menu with department or project options]
- Date of Expense:

  [Calendar picker]
- Expense Category:
  - [Dropdown menu with predefined expense categories specific to IT]
  - Hardware Purchase
  - Software License
  - Training and Certification
  - Internet and Mobile Expenses
  - Travel (if related to IT projects)
  - Others (Specify)
- Expense Description:
  - [Text field for a brief description]
- Vendor/Supplier Name:
  - [Text field]
- Amount (in local currency):
  - [Numeric input field]
- Receipt Image/Invoice:
  - [File upload button to attach a photo or scan of the receipt/invoice]

Project/Task Information (if applicable)

- Project/Task Name: [Dropdown menu with project/task options]
- Task Description: [Text field]

Travel Information (if applicable)

- Travel Date (if travel-related):
    - [Calendar picker]
- Travel Destination (if travel-related):
    - [Text field]

Additional Information

- Purpose of Expense:
    - [Text area for a detailed explanation]
- Notes:
    - [Text area for additional notes]

Approval Workflow

Once the user submits the expense report, the approval workflow begins:

1. Notification to Manager:
    - Manager receives a notification of the pending expense report for approval.
2. Manager Approval Interface:
    - Manager logs in and accesses an approval interface.
    - The interface displays a summary of expenses and details of each entry.
3. Approval/Denial:
    - Manager approves or denies the entire expense report.

   - If denied, the manager provides comments or reasons for rejection.

4. Communication:
   - The system notifies the employee of the approval or denial decision.
   - In case of denial, the employee can revise and resubmit the expense report.

- Expense History:
   - Users can view their historical expense data, including approved, pending, and denied expenses.