Software Requirements Specification

for

Accounting Software

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of our project is to provide Indian Business with modern secure and a powerful accounting software that is easy to learn and provides many useful utilities to manage account of a business. It’s helps to make informed business decisions with accurate financial data that helps you see where you are, where you've been and trends that may determine where you're headed.

1.2 Document Conventions

Font Type	Arial
Heading Size	18px
Subheading Size	14px
Paragraph Size	11px

1.3 Intended Audience and Reading Suggestions

This document is intended for the project developers and the end users who are the Accounting Head, Client Manager, Expense Manager, General Manager. The significance of this document is to assist in the development process of this accounting software as well as serve as a reference to clarify any future issues the end users may run into.

1.4 Product Scope

This project is a dynamic, web based accounting software that makes account handling easy and efficient for the end users. The entire data in stored in a stable database and provides a graphical representation of data for better view of company statistics. The software works on multiple computers by sharing same database by which users of different department can use it sitting at different locations simultaneously.

1.5 References

- *W3School*
- *What are Account Management System*
- *Accounting Software Behavioral Model*
- *Django Documentation*
- *SQL Documentation*

2. Overall Description

2.1 Product Perspective

The end product is supposed to be a web- based accounting software that caters the company to manage its account efficiently. It uses a simple database rather than a complex one and also provides a good and easy to use GUI for both new as well as experienced users of the software.

Other major characteristics of this project include:

- Cross Platform Support: Offers operating support for most of the known and commercial operating systems.
- User Account: The system allows the user to create their accounts in the system and provide features of updating and viewing profile.
- Easy to Generate Reports: The reports will be auto-generated by the software itself by collecting data from the required databases.
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2.2 Product Functions

Major Function provided by this software are:
- Create Company.
- Create a team of accountants that can handle different workload.
- Create clients.
- Create a template of invoice.
- Create a preformatted invoice from or to company and send it to client.
- Create Expenses of the company against vendor.
- Edit Company Details.
- Edit Client Detail.
- Add entry to ledger.
- Edit ledger entry.
- Get custom reports based on parameters entered.

2.3 User Classes and Characteristics

1. **Accounting Head -** He or she is the head of the **Accounting Department**, who can create the company and manage the employees and has all the rights or act as the admin of the company. He or she can give rights to the employees so that the work would distribute between the workforce.

2. **General Accountant -** He or she is just under the **Accounting Head** with few less rights. He or she will deal with the ledger, Inventory and company accounts.

3. **Expense Accountant -** He or she will manage all the liabilities of the company, deals with vendor and expenses of the company.

4. **Client Accountant -** He or she will purchase goods from the company and his or her purchase history will be saved and receipt will be generated for him for bookkeeping.

2.4 Operating Environment

Recommended browsers are Chrome, Firefox and Safari.

Particulars	**Client-side**	**Sever-side**
Operating System	Windows/Linux	Linux
Processor	Intel or AMD	Intel or AMD
Hard Disk	1 GB	
RAM	2 GB	

2.5 Design and Implementation Constraints

The user interface shall be implemented using any tool or software package like django, SQL, etc. on following language.

Client-side Programming Interface	
HTML5	HTML5 is the fifth revision of the HTML standard.
CSS	Cascading Style Sheets define style rules in a separate CSS file.
JavaScript	JavaScript is a lightweight, object-oriented, cross-platform scripting language, mainly used within web pages.

Server-side Programming Interface	
Django	Python based framework for servers
SQL	SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system.

2.6 User Documentation

No such documents yet.

2.7 Assumptions and Dependencies

- The product must have an interface that is simple enough to understand.
- All necessary hardware and software are available for implementing and use of the tool.
- The proposed system would be designed, developed and implemented based on the software requirements specifications document.
- End users should have basic knowledge of computer and we also assure that the users will be given basic training software documentation and reference material.
- The system is not required to save generated reports.

3 External Interface Requirements

3.4 User Interfaces

1. Frontend Software: HTML, CSS, JavaScript.
2. Backend Software: Django (python3).

- **Login Page:**
    - User will be greeted with a login page through which they can login. On successful login user will be taken to the Software dashboard. On failed login appropriate message will be displayed.
    - A button will be displayed on the login page to create a new Company. On clicking that button user will be taken to company creation page.
- **Company Creation Page:**
    - On company creation page **Company details** will be asked from the user through a form along with **Head Accountant** account details.
    - After completing company creation form user will press the save button which will take the user to **Team creation** page.
- **Team Creation Page:**
    - On team creation page user can add team members through buttons in a form. Team members can be of 3 types:
        i. Client Accountant
        ii. Expense Accountant
        iii. General Accountant
    - On pressing add team members, a form will appear to enter member details along with credentials.
    - After adding team members Head accountant can press save button which will take him to the dashboard.
- **Dashboard:**
    - Information on the dashboard will be customized to the user rights, for example expense accountant will have a dashboard containing information about company liabilities and expenses, budget and shortcut to directly add new expense. Head Accountant will have a dashboard containing all the information and tools.
    - Dashboard will have a side panel that will act as navigation bar.
    - Navigation bar will contain a Company logo which can be clicked to take to company edit page and nav bar will also contain buttons to following windows:
        i. Dashboard
        ii. Client
        iii. Invoices
        iv. Reports

   v. Expenses
   vi. Ledger
   vii. Banks
   viii. Team

- **Client Page:**
    - Client page will be accessible to Head Accountant and Client Accountant only.
    - This page will contain briefing about Company revenue, client invoices, client dues and unpaid invoices.
    - It will also contain a button to add a new client and create an invoice to an existing client.
    - At the bottom of the page user can see all the clients list will filter options.
- **Client Creation Page:**
    - User will be greeted with a form to add new client.
- **Invoices Page:**
    - This page is only available to Head Accountant and Client Accountant.
    - This page will show total overdue, total outstanding, total draft
    - User can create a new invoice from the company or to the company.
    - User can also click a button to edit the invoice format.
    - At the end of the page there will be a list of invoice history.
- **Invoice Creation Page:**
    - A preformatted invoice will appear with send, save and cancel option.
    - User can edit the values in the preformatted invoice.
- **Expense Page:**
    - Expense page will be only available to Expense Accountant and Head Accountant.
    - This page will contain information about total spending, rebill and markup expenses.
    - It will also contain a button to add new expense.
    - At the bottom of the screen a list of expense history is displayed which can be filtered.
- **Expense Creation Page:**
    - New Expense data can be entered with an image of the receipt.
    - Data includes category, Vendor, tax details etc.
    - Vendor can be selected from a drop down list or new vendor can be added directly.
    - A save and cancel button is available to provide required functionality.
- **Reports Page:**
    - Contains general reports like overdue, total expenses, profit loss.
    - A report query can be entered in form available to get desired report.
- **Banks Page:**
    - Only available to Head accountant.
    - This page will display information about budgets allocated and Bank accounts.
    - User can add a new Bank or new account in existing Bank using available buttons.
    - User can allocate Budget for expenses from various bank accounts.
- **Ledger Page:**
    - This page is available only to Head accountant and General accountant.
    - All account data is available in the form of double entry ledger.
    - User can add a new entry to the ledger in form of asset or inventory.
    - User can request expense department to purchase certain asset.
- **Team Page:**
    - This page will be only available to the Accounting Head of the company
    - Name of team members along with their designation will be visible
    - The edit button can be used to edit the details of the team member
    - An add button will be available to add a new member to the team if a designation is empty
    - A delete button can be used to remove a person from the team

3.5 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect to the internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable. The system requires Database also for the store any transaction of the system like MYSQL etc. system also require DNS (domain name space) for the naming on the internet. At the last user need web browser for interact with the system.

Web Server Deployment and Technologies	
MySQL	**MySQL** database for storage of Data and user as well as seller information
RESTful API	A **RESTful API** is an application program interface **(API)** that uses HTTP requests to GET, PUT, POST and DELETE data.

3.6 Software Interfaces

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3.7 Communications Interfaces

The Accounting System shall use the HTTPS protocol for communication over the internet and intranet communication will be through TCP/IP protocol suite. The user must have SSL certificate licensing registered web browser.

4 System Features

4.1 Creation and Authorization.

4.1.1 Description and Priority

This module primarily focuses on creating new companies. Only the Accounting Head can create new companies. Secondly, this feature provides user authorization through a unique login-id and password provided to each user.

4.1.2 Stimulus/Response Sequences

1. The user will be asked to provide a login-id and password.
2. On successful login, the user will be directed to their profile page where based on their granted privileges, they can perform various tasks.
3. The Accounting Head has the privilege to create new company. When the Accounting Head clicks on 'Create Company' button, they will be redirected to a form where they have to enter the company information.
4. By clicking on the 'save' button, the company has been successfully being created.

4.1.3 Functional Requirements

REQ-1: **Authorization through login:** On successful login, the user will be redirected to their respective page. When the login fails, the login page will reload with error message depending on the error.

REQ-2: **Company Creation:** Only the Accounting Head can create a new company. On clicking 'create company', the Accounting Head will be directed to a form page. After filling all the details, click on 'Save'. On successful creation, a message will be displayed informing the user. In case of an error, the form page will reload with an error message indicating the problem.

4.2 Accounting

4.2.1 Description and Priority

This module will deal with all the accounting aspects of the application such as Client Management, Expense Management, Inventory Management, Invoice Generation, Bank Management etc. These tasks are undertaken by various individuals based on their privileges.

4.2.2 Stimulus/Response Sequences

1. Based on their privilege, users will have different options to choose from. For example, an Expense Accountant will have options such as Expense Management, Invoice Generation etc.
2. By clicking on Expenses Management, the user can check previous expenses, add new expenses.
3. Similarly, by selecting other options, other operations can be performed.

4.2.3 Functional Requirements

REQ-1: **Create Client:** This feature is available only to the Accounting Head and Client Accountant. By clicking on the 'Create Client' button, the user will be redirected to a form page where the user has to input the client details and click on 'Save' button. On successful creation, a message will be displayed informing the user. In case of an error, the form page will reload with an error message indicating the problem.

REQ-2: **Client Management:** This feature is available only to the Accounting Head and Client Accountant. On the client management page, the list of all the present clients is available along with their overdue and recent activities.
The user can check the details of any particular client. The user can also edit, delete and save client details.

REQ-3: **Expense Management:** This feature is only available to the Accounting Head and Expense Accountant. On the expense management page, the list of all expenses is available. The user can click on 'Create New Expense' button to create new expense.

Moreover, options such as expense tracker, connect to bank and rebill/markup expenses are also available to the user.

REQ-4: **Assign Teams:** This feature is only available to the Accounting Head. The Accounting Head can create teams of his employees for a specific client or a group of clients based on the client requirements.

REQ-5: **Bank Management:** This feature is only available to the Accounting Head. On this page, list of all the banks along with finances to each bank associated with the company is available. The user can add new bank if needed. Additionally, the user can edit, delete and save current bank information. By clicking on add button, the user will be redirected to a form page where the user has to enter the bank information and click on 'Save' button. On successful creation, a message will be displayed informing the user. In case of an error, the form page will reload with an error message indicating the problem.

REQ-6: **Inventory Management:** This is feature is available under the Ledger page. It is only available to the General Accountant and Accounting Head. On the Inventory Management page, a list of commodities is available with respective quantities. The user can click on 'Add new item' button to add a new commodity. The user will be redirected to a form page and enter the required information and click on 'Save' button. On successful creation, a message will be displayed informing the user. In case of an error, the form page will reload with an error message indicating the problem.

REQ-7: **Invoice Management:** This feature is available to the Head Accountant and Client Accountant. On this page, there are two tabs 'From Me' and 'To Me'. In both tabs respective list of invoices is available. Also available are total outstanding, overdue and paid columns. By clicking on add button, the user will be redirected to a form page where the user has to enter the invoice information and click on 'Save' button. On successful creation, a message will be displayed informing the user. In case of an error, the form page will reload with an error message indicating the problem.

4.3 Report Generation

4.3.1 Description and Priority

This module focuses on report generation of different departments. Users of this module include Accounting Head, General Accountant, Expense Accountant and Client Accountant. Users can request report based on their assigned privileges.

4.3.2 Stimulus/Response Sequences

1. When the user clicks on 'Generate Report' button, they will be redirected to a form.
2. The user will have to enter information such as 'Start date', 'End date', type of report, whether they require graph or not.
3. Click on 'Submit' button.

4. If the request is successful, the user will be redirected to a page where the required report is generated.
5. If the request fails, the user will be redirected to the error page.

4.3.3 Functional Requirements

REQ-1: **Generate Report:** This feature is available to the Head Accountant, General Accountant, Expense Accountant and Client Accountant. By clicking on the 'Generate Report' button, the user will be redirected to a form page where the user has to enter the invoice information and click on 'Submit' button. On successful generation, the user will be redirected to the report page. In case of an error, the form page will reload with an error message indicating the problem.

5 Other Nonfunctional Requirements

5.1 Performance Requirements

No such requirement.

5.2 Safety Requirements

No such requirement.

5.3 Security Requirements

This Accounting Software will use credential system and rights system with data encryption. Credential system will force anonymous users to login and will not allow an unauthorized user to login into the system. Rights system will not allow any employee to abuse the system to his or her advantage, the rights system will prevent any unauthorized access to system. As the data will be encrypted even if the database is hacked, the database will be useless to the hacker.

5.4 Software Quality Attributes

No such requirement.

5.5 Business Rules

No such requirement.

6 Other Requirements

No such requirement.

Appendix A: Glossary

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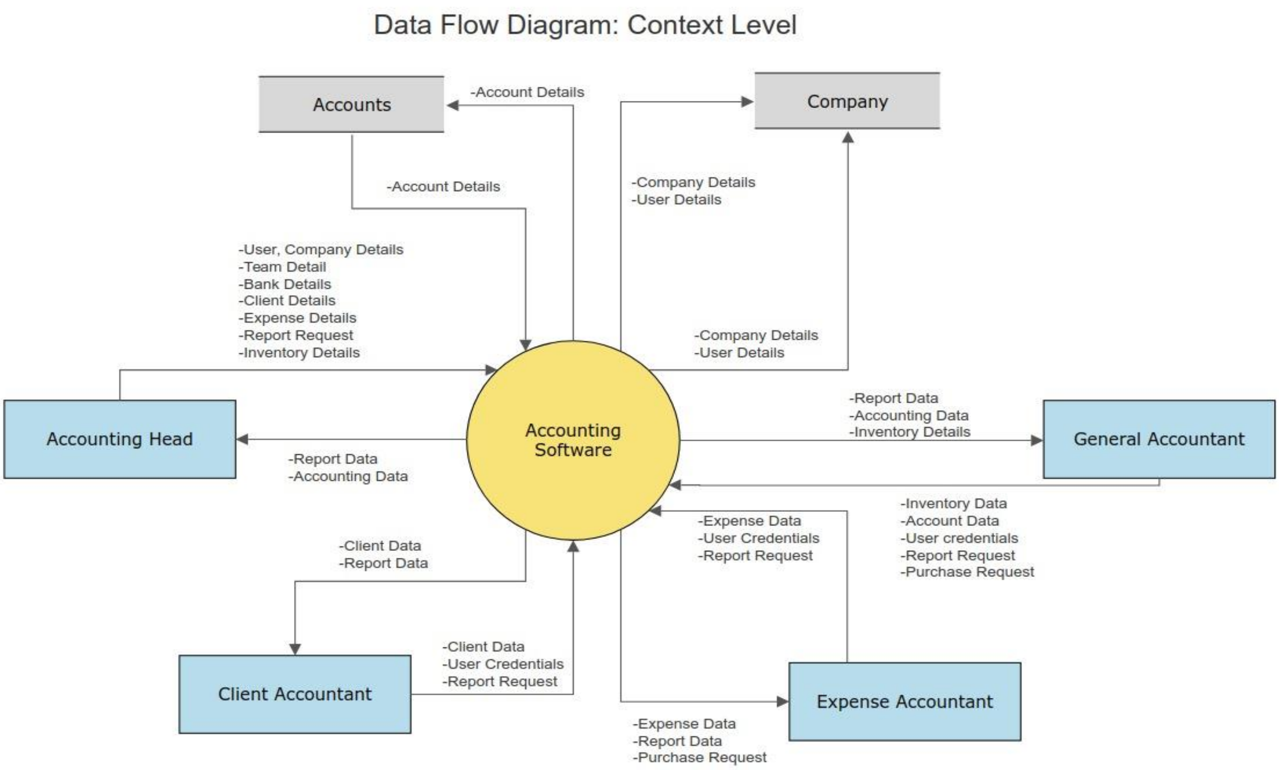
Report Page	8

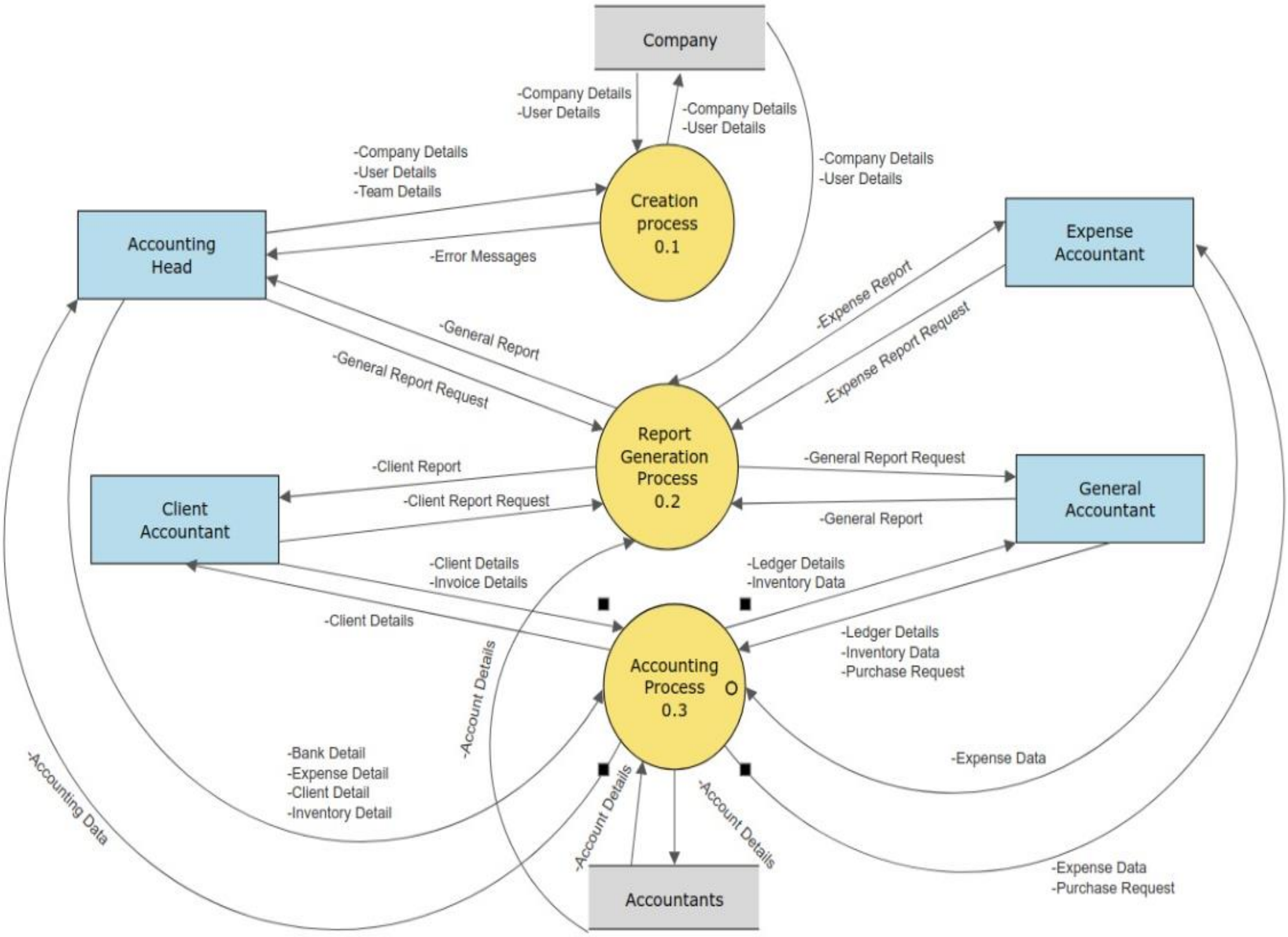
Appendix B: Analysis Models

1) Data Flow Diagram:

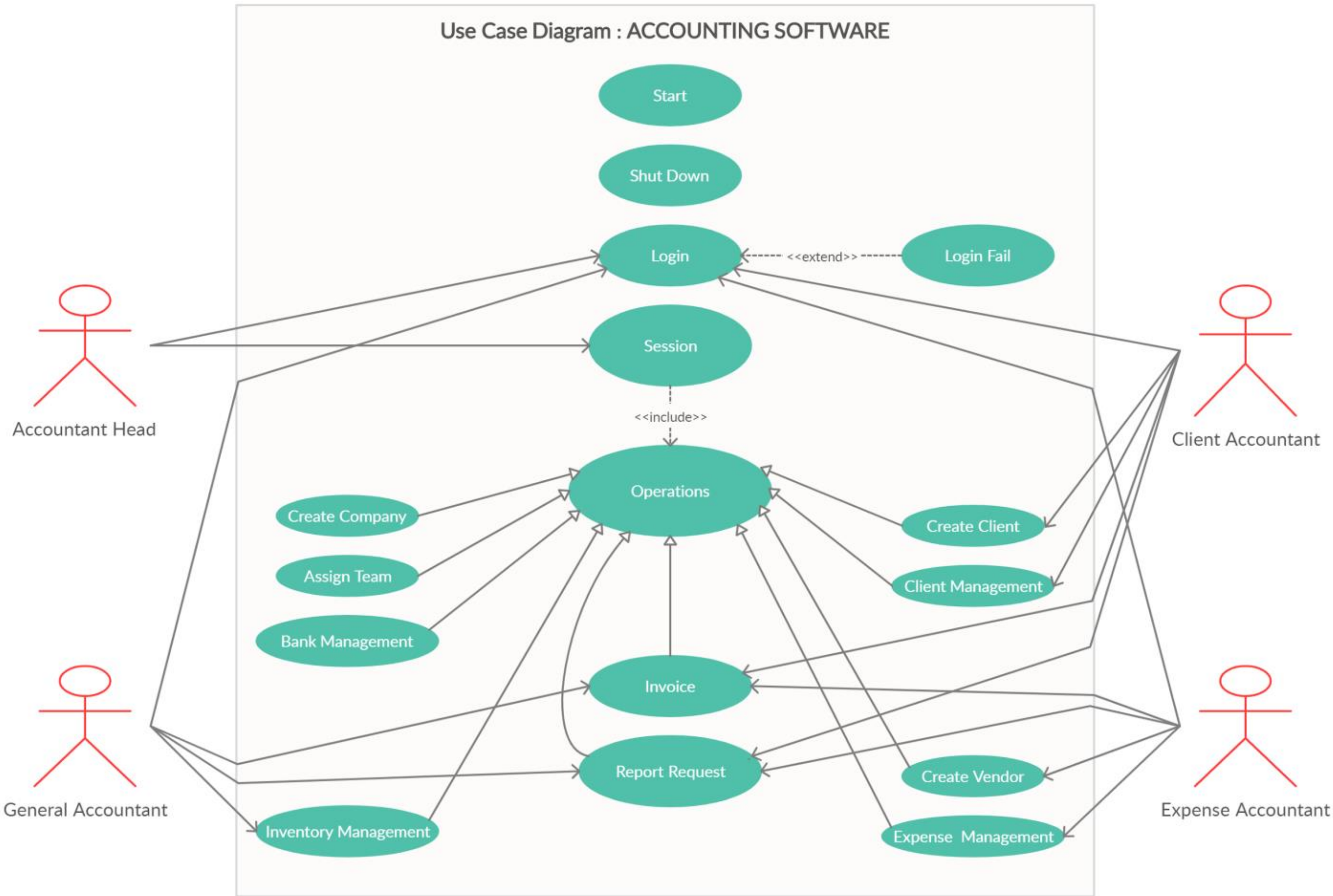
i) Context Level (Level - 0 Diagram)-



ii) Level – 1 Diagram-



2)Use Case Diagram:



Appendix C: To Be Determined List

S.NO	Name
3.3	Software Interface