Software Requirements Specification

BLEND

Clients Management System

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1. Introduction

1.1. Purpose

The purpose of this document is to present a detailed description of the Clients Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

1.2. Scope of Project

This software system will be a web tool for managing clients for a software development company. This system will be designed to maximize the managers productivity by providing tools for generating quotes, invoices as well as reviwing employeers productivity. Currently, the company is using muliple tools for this purpise which is time-consuming and costly.
More specifically, this system is designed to allow the company managers to review and compare the time logs from the employees, create quotes for the potential clients, as well as issue invoices for the work. The system will alow the managers to create projects the employees are working on and use the logged time by the employees on a similar projects to make better estiamtions and planning in the future. Since the company is working on different markets, the system will allow generating invoices and quotes in multiple currencies.

1.3. Glossary

Term	Definition
Employee	A person that is using the system for tracking his daily hours.
Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.

Stakeholder	Any person with an interest in the project who is not a developer.
User	A person tht is using the sytem.
Database	A collection of stored related data

1.4. Overview of Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

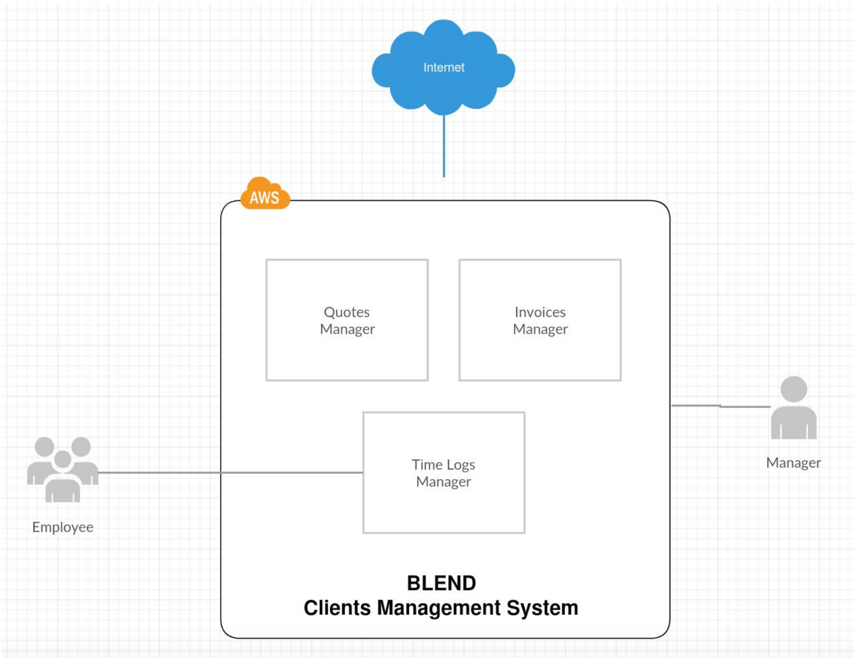
The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2. Overall Description

2.1 System Environment

The Clients Management System has two active actors and one coopeatating system. Both the Employee and the Manager access the tool through the Internet. The system can’t be used without authorization by the Users.



The sustem is devided into three independent sections. The Manager access the entire system directly while the Employee has access only to the Time Logs sub-section.

2.2 Functional Requirements Specification

This section outlines the use cases for both Employee and Manager separately.

2.2.1 Employee Use Case

Use case: **Log time**

Diagram:

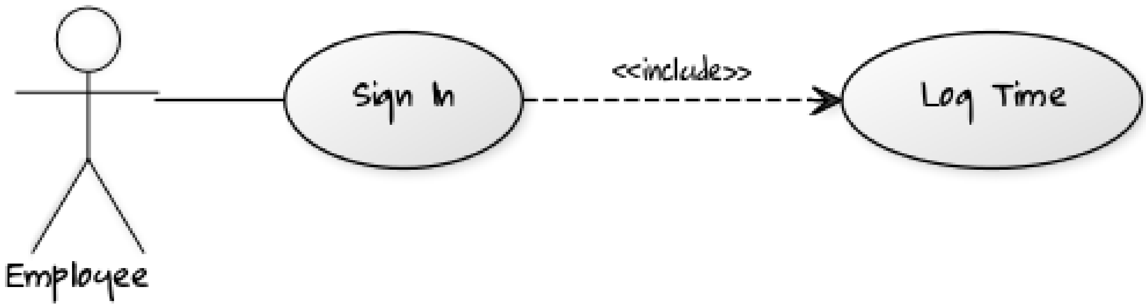


Figure 1 - Employee Use Case

Brief Description

The Employee accesses the Clients Management System on the web, logs in the system and logs time for particular day.

Initial Step-By-Step Description

Before this use case can be initiated, the Reader has already accessed the Clientns Management System.

1. The Employee sings in the system using his credentials assigned.
2. The system displays a dasgboard page with time logs list.
3. The Employee logs time.

Xref: Section 3.2.1, Log Time

2.2.2 Manager Use Cases

The Manager has the following sets of use cases:

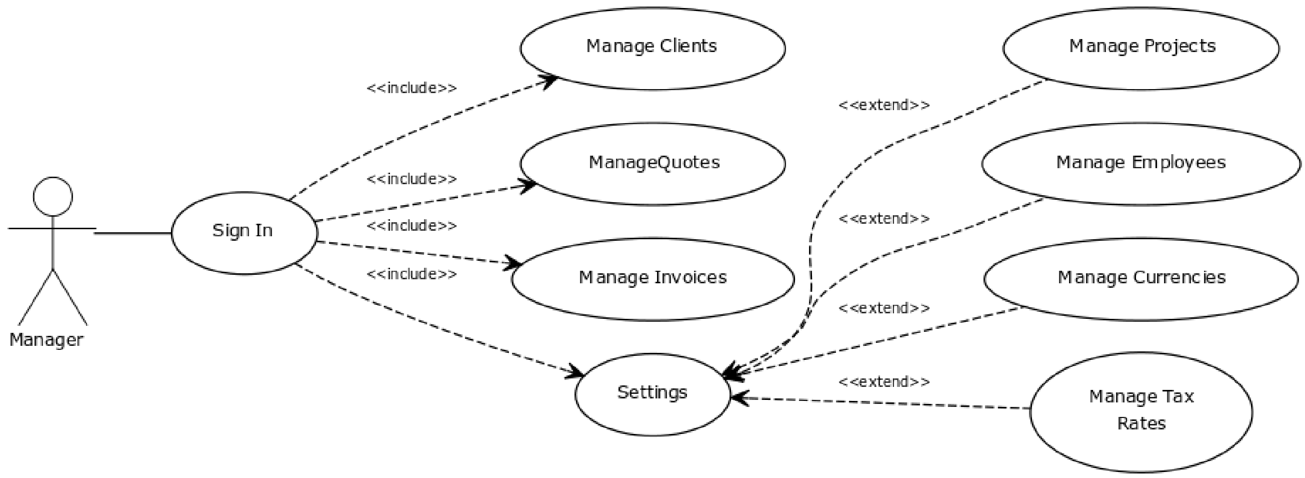
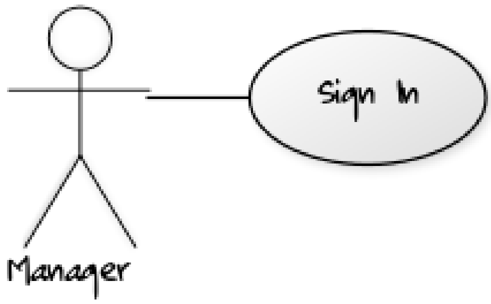


Figure 2 - Manager Use Cases

Use case: User log in

Diagram:



Brief Description

Both Manager or Employee logs in the system

Initial Step-By-Step Description

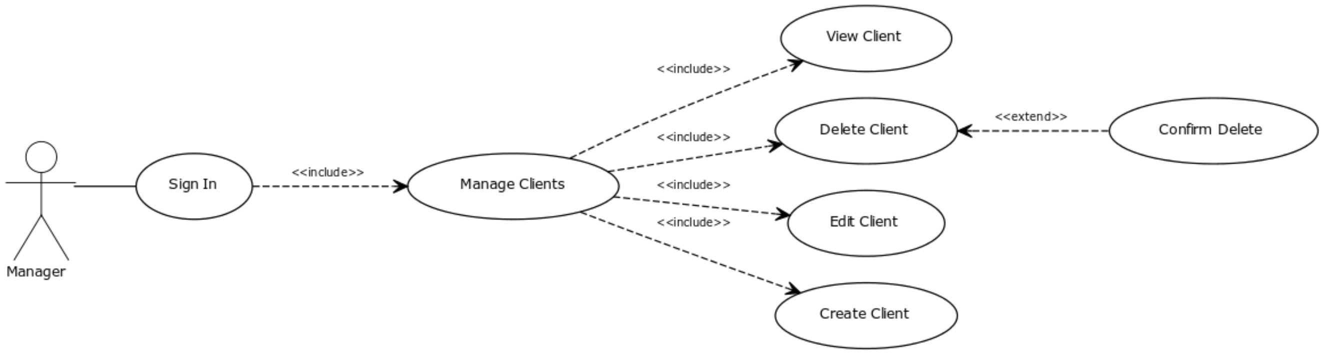
Before this use case can be initiated, the Manager has already accessed the landing page page of the system.

1. The User fills the email address and password.
2. The system verifies the credentials. logs in and redirects the user to the Dashboard.

Xref: Section 3.2.2, User log in;

Use case: Manage Client

Diagram:



Brief Description

The Manager creates a new client, updates information about a current client, deletes a client or views additional details about a client.

Initial Step-By-Step Description

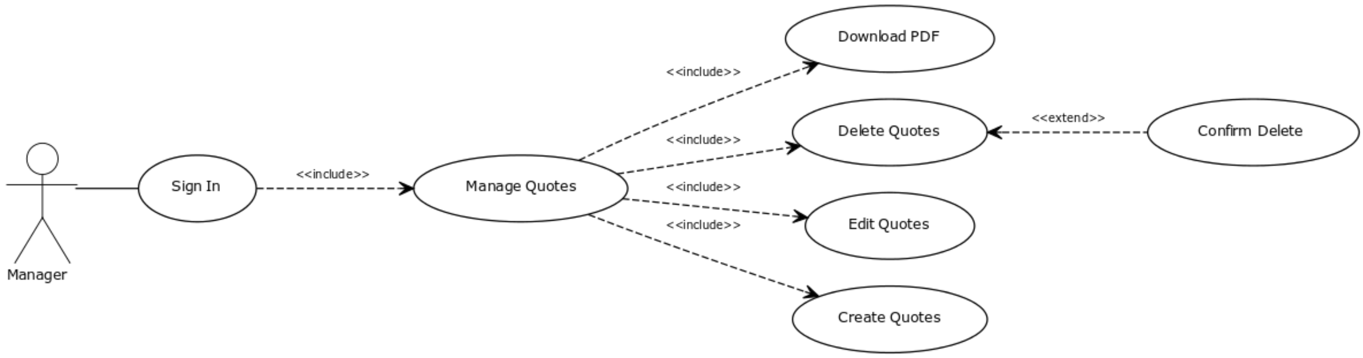
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

3. The Manager clicks on the *Clients* form the main menu.
4. The system redirects the user to a *Clients List* page.
5. The Manager choses to add a new client or to update, delete or view an existing one.
6. If the Manager chooses to add new or update client, the system presents an empty form for filling information or a filled form for updating information.
7. The Manager fills the information ans submits the form.
8. The system verifies the information and returns the Manager to the *Clients List* page.
9. If the manager chooses to delete a Clinet, the system prompts for a delete confirmation.
10. The system verifies and executes the action and returns the Manager to the *Clients List* page.

Xref: Section 3.2.3, Manage Client;

Use case: Manage Quote

Diagram:



Brief Description

The Manager enters a new Quote or updates information about an existing one.

Initial Step-By-Step Description

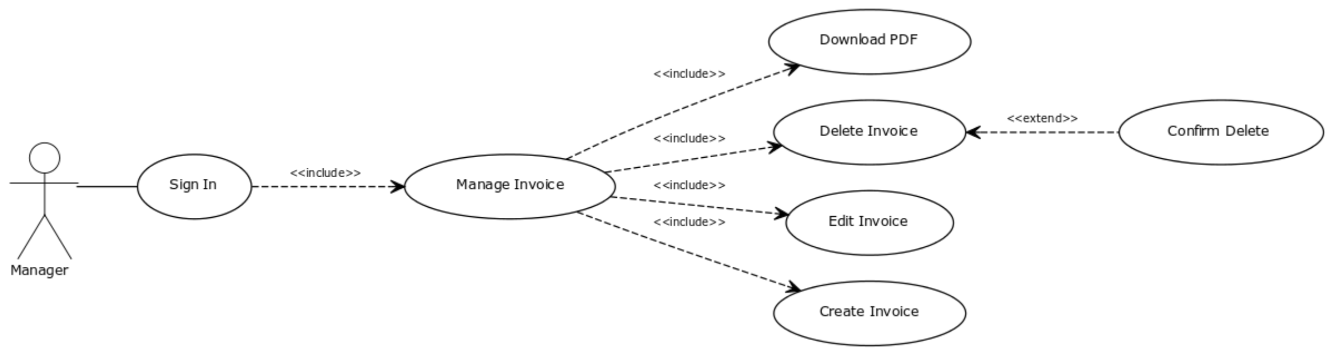
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

1. The Manager clicks on the *Quotes* link form the main menu.
2. The system redirects the user to a *Quotes List* page.
3. The Manager choses to add a new client or to update, delete or download PDF for an existing one.
4. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information.
5. The Manager fills the information ans submits the form.
6. The system verifies the information and returns the Manager to the *Quotes List* page.
7. If the manager chooses to delete a Quote, the system prompts for a delete confirmation.
8. The system verifies and executes the action and returns the Manager to the *Quotes List* page.
9. If the manager chooses to download a PDF, the system automatically dowloads a PDF.

Xref: Section 3.2.4 Manage Quote

Use case: Manage Invoice

Diagram:



Brief Description

The Manager enters a new Invoice or updates information about an existing one.

Initial Step-By-Step Description

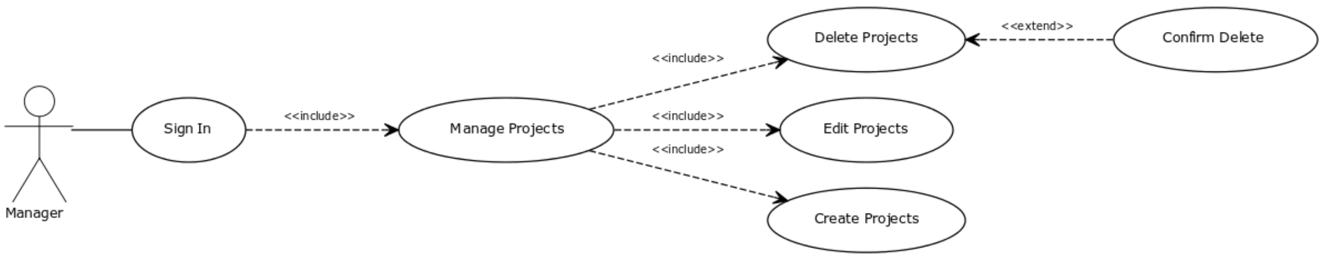
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

1. The Manager clicks on the *Invoices* link form the main menu.
2. The system redirects the user to a *Invoices List* page.
3. The Manager choses to add a new invoice or to update, delete or download PDF for an existing one.
4. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information.
5. The Manager fills the information ans submits the form.
6. The system verifies the information and returns the Manager to the *Invoices List* page.
7. If the manager chooses to delete an Invoice, the system prompts for a delete confirmation.
8. The system verifies and executes the action and returns the Manager to the *Invoices List* page.
9. If the manager chooses to download a PDF, the system automatically dowloads a PDF.

Xref: Section 3.2.5, Manage Invoice

Use case: Manage Project

Diagram:



Brief Description

The Manager enters a new Project or updates information about an existing one.

Initial Step-By-Step Description

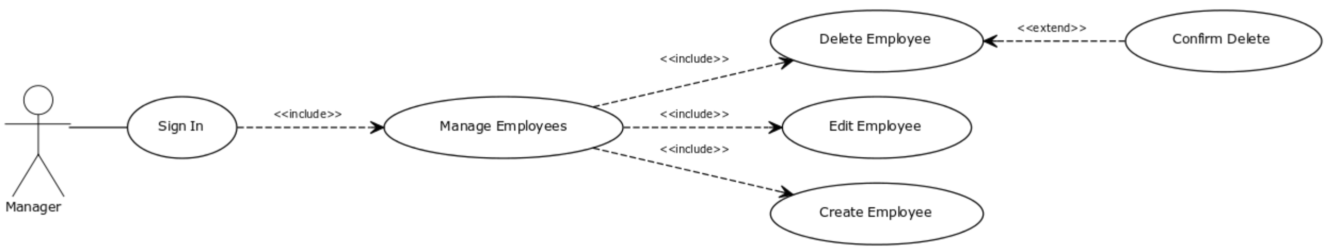
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

1. The Manager clicks on the *Settings->Projects* link form the main menu.
2. The system redirects the user to a *Projects List* page.
3. The Manager choses to add a new project or to update or delete an existing one.
4. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information.
5. The Manager fills the information ans submits the form.
6. The system verifies the information and returns the Manager to the *Projects List* page.
7. If the manager chooses to delete a project, the system prompts for a delete confirmation.
8. The system verifies and executes the action and returns the Manager to the *Projects List* page.

Xref: Section 3.2.6, Manage Project

Use case: Manage Employee

Diagram:



Brief Description

The Manager enters a new Employee or updates information about an existing one.

Initial Step-By-Step Description

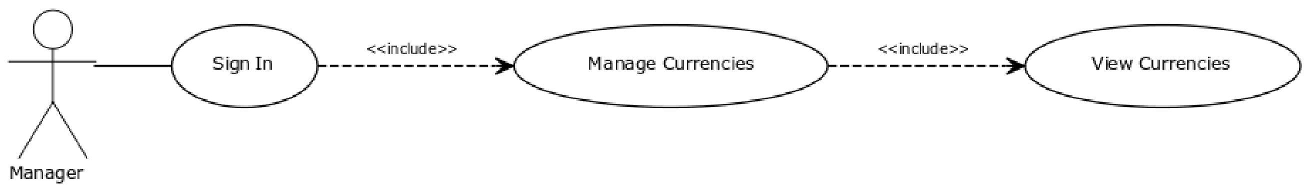
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

1. The Manager clicks on the *Settings->Employees* link form the main menu.
2. The system redirects the user to a *Employees List* page.
3. The Manager choses to add a new project or to update or delete an existing one.
4. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information.
5. The Manager fills the information ans submits the form.
6. The system verifies the information and returns the Manager to the *Employees List* page.
7. If the manager chooses to delete an employee, the system prompts for a delete confirmation.
8. The system verifies and executes the action and returns the Manager to the *Employees List* page.

Xref: Section 3.2.7, Manage Employee

Use case: Manage Currencies

Diagram:



Brief Description

The manager previews Currencies List.

Initial Step-By-Step Description

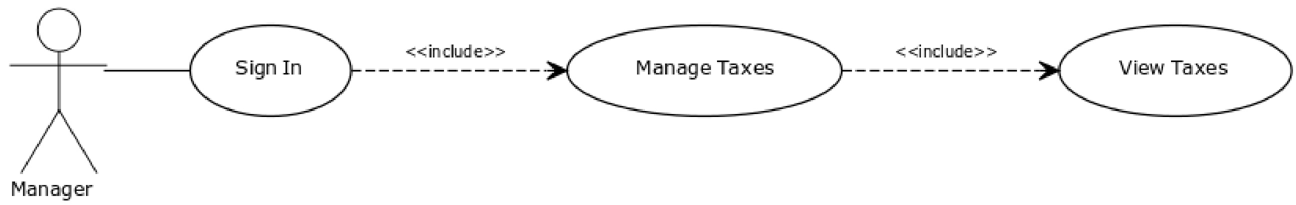
Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

1. The Manager clicks on the *Settings->Currencies* link form the main menu.
2. The system redirects the user to a *Currencies List* page.

Xref: Section 3.2.8, Manage Currencies

Use case: Manage Taxes

Diagram:



Brief Description

The manager previews Taxes List.

Initial Step-By-Step Description

Before this use case can be initiated, the Manager has already accessed the Dashboard page of the system.

3. The Manager clicks on the *Taxes>Currencies* link form the main menu.
4. The system redirects the user to a *Taxes List* page.

Xref: Section 3.2.9, Manage Taxes

2.3 User Characteristics

The Employee is expected to be Internet literate and to be able to track their time off the system. The Manager is expected to be Internet literate as well.

2.4 Non-Functional Requirements

The system will be hosted on AWS EC2 instance and will be running on Apache 2. It will use PHP 7 with MySQL. The application should be accesable through both, web and mobile devices.

3. Requirements Specification

3.1 Functional Requirements

The Logical Structure of the Data is contained in Section 3.1.1.

3.1.1 Log time

Use Case Name	Log time
XRef	Section 2.2.1, Log Time
Trigger	The Employee access the Client Managemt System
Precondition	The user is loggd in the system
Basic Path	1. The Employee clicks on the Log Time button 2. The system displays an empty form 3. The Emoployee have to select a project from a dropdown he is adding hours for, date, number of hours as well as description. 4. One the information are filled, the Employee clicks save 5. The system validates the input and returns the Employee to the Time Logs list or back to the form if there were errors.
Alternative Paths	In step 2, the Employee can deceide to cancel the action and return back to the Time Log list.
Postcondition	The time is logged into the system.
Exception Paths	The Employee can cancel the action anytime.
Other	The projects dropdown contains all the projects added by the admin through the Settings Section.

3.1.1 User login

Use Case Name	User Log In
XRef	Section 2.2.2, User log in

Trigger	
Precondition	The employ opens the web address
Basic Path	1. The user fills the email and password form 2. The user clicks log in 3. The system verifies the credentials 4. The system redirects the user to the dashboard
Alternative Paths	None
Postcondition	The user is logged in
Exception Paths	The Employee can cancel the action anytime.
Other	None

3.2.2 Add new client

Use Case Name	Add new client
XRef	Section 2.2.2, Manage Client
Trigger	The user selects the Clients link from the main menu.
Precondition	The user is signed in and he is on any of the internal pages in the system.
Basic Path	1. The Manager chooses to add a new client; 2. The system presents an empty form for filling client information 3. The Manager fills the information ans submits the form. 4. The system verifies the information and returns the Manager to the Clients List page.
Postcondition	A new client is created in the database.
Exception Paths	The attempt may be abandoned at any time.
Other	The client information includes name, email address, address, city, state, postal code, country, phone number, web address

3.2.3 Update client information

Use Case Name	Update client information

XRef	Section 2.2.3, Manage Client
Trigger	The user chooses a client from the clients list and clicks update
Precondition	The user is signed in and he is on the Clients List Page
Basic Path	1. The Manager chooses the client he wants to edit; 2. The system presents filled form with client information; 3. The Manager update the information and submits the form. 4. The system verifies the information and returns the Manager to the Clients List page.
Postcondition	A client information is updated.
Exception Paths	The attempt may be abandoned at any time.
Other	The client information includes name, email address, address, city, state, postal code, country, phone number, web address

3.2.4 Remove client

Use Case Name	Remove client
XRef	Section 2.2.3, Manage Client
Trigger	The user chooses a client from the clients list and clicks delete
Precondition	The user is signed in and he is on the Clients List Page
Basic Path	1. The Manager chooses the client he wants to delete; 2. The systems prompts the Manager to confirm the delete action 3. The Manager update the information and submits the form. 4. The system verifies the action and returns the Manager to the Clients List page.
Alternative Paths	In step 2, the user can cancel the abbandon the process.
Postcondition	A client information is updated.
Exception Paths	The attempt may be abandoned at any time.
Other	The client information includes name, email address, address, city, state, postal code, country, phone number, web address

3.2.5 Manage Quote

Use Case Name	Manage Quote
XRef	Section 2.2.4, Manage Quote
Trigger	The manager clicks on the Quote link from the main menu
Precondition	The user is signed in and he is on any of the internal pages in the system.
Basic Path	1. The Manager choses to add a new quote or to update, delete or download PDF for an existing one. 2. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information. 3. The Manager fills the information ans submits the form. 4. The system verifies the information and returns the Manager to the Quotes List page. 5. If the manager chooses to delete a Quote, the system prompts for a delete confirmation. 6. The system verifies and executes the action and returns the Manager to the Quotes List page. 5. If the manager chooses to download a PDF, the system automatically dowloads a PDF.
Alternative Paths	None
Postcondition	A quote is created; A quote is updated; A quote is deleted; A quote PDF is downloaded
Exception Paths	The Manager may abandon the operation at any time.
Other	None

3.2.6 Manage Invoice

Use Case Name	Manage Invoice
XRef	Section 2.2.5, Manage Invoice
Trigger	The manager clicks on the Invoices link from the main menu
Precondition	The user is signed in and he is on any of the internal pages in the system.

Basic Path	1. The Manager choses to add a new invoice or to update, delete or download PDF for an existing one. 2. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information. 3. The Manager fills the information ans submits the form. 4. The system verifies the information and returns the Manager to the Invoices List page. 5. If the manager chooses to delete an Invoice, the system prompts for a delete confirmation. 6. The system verifies and executes the action and returns the Manager to the Invoices List page. 7. If the manager chooses to download a PDF, the system automatically dowloads a PDF.
Alternative Paths	None
Postcondition	An invoice is created; An invoice is updated; An invoice is deleted; An invoice PDF is downloaded
Exception Paths	The Manager may abandon the operation at any time.
Other	The invoice information include invoice number, date issues, due date, invoice items etc.

3.2.7 Manage Project

Use Case Name	Manage Project
XRef	Sec 2.2.6 Manage Project;
Trigger	The manager clicks on the Projects link from the main menu
Precondition	The user is signed in and he is on any of the internal pages in the system.
Basic Path	1. The Manager choses to add a new project or to update or delete an existing one. 2. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information. 3. The Manager fills the information ans submits the form. 4. The system verifies the information and returns the Manager to the Projects List page. 5. If the manager chooses to delete a project, the system prompts for a delete confirmation.

	6. The system verifies and executes the action and returns the Manager to the Projects List page.
Alternative Paths	None
Postcondition	A new project is created; An existing project is updated; A project is deleted
Exception Paths	In step 2, the Manager is supposed to connect a project with a Clinet. If the client doesn't exists, the Manager should create one.
Other	The project information include name, descrioption and client.

3.2.7 Manage Employee

Use Case Name	Manage Employee
XRef	Sec 2.2.7 Manage Employee;
Trigger	The manager clicks on the *Settings->Employees* link from the main menu
Precondition	The user is signed in and he is on any of the internal pages in the system.
Basic Path	1. The Manager choses to add a new employee or to update or delete an existing one. 2. If the Manager chooses to add new or update existing, the system presents an empty form for filling information or a filled form for updating information. 3. The Manager fills the information ans submits the form. 4. The system verifies the information and returns the Manager to the *Employees List* page. 5. If the manager chooses to delete a employee, the system prompts for a delete confirmation. 6. The system verifies and executes the action and returns the Manager to the *Employees List* page.
Alternative Paths	None
Postcondition	A new employee is created; An existing employee is updated; An employee is deleted
Exception Paths	The Manager may abandon the operation at any time.
Other	The project information include name, email, role and password.

3.3 Detailed Non-Functional Requirements

3.3.1 Security

The server on which the Client Management System resides will have its own security to third party access on the system.