



TRƯỜNG ĐẠI HỌC FPT

Civil housing construction quotation system

Software Requirement Specification

Project Code: FU-SPR2024-NET1702-SWP391-06

Document Code: FU-SPR2024-NET1702-SWP391-06-SRS– v1.0

Ho Chi Minh, 03/01/2024

RECORD OF CHANGE

*A - Added M - Modified D - Deleted

| Effective Date | Changed Items | A* M, D | Change Description | New Version |
|----------------|-------------------------------------|------------|---|-------------|
| 23/01/2024 | Use Case: Register | Add | Add Register Use Case detail. | 1.0 |
| 23/01/2024 | Use Case: Login | Add | Add Login Use Case detail | 1.0 |
| 23/01/2024 | Use Case: View Project List | Add | Add View Project List Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: View Request Form History | Add | Add View Request Form History Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: View Quotation Detail | Add | Add View Quotation Detail Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: Update Combo | Add | Add Update Combo Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: Add Combo | Add | Add Add Combo Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: Add Project | Add | Add Add Project Use Case Detail | 1.0 |
| 23/01/2024 | Use Case: Update Project | Add | Add Update Project Use Case Detail | 1.0 |
| 26/01/2024 | Use Case: Create Request Form | Add | Add Create Request Form Use Case Detail | 1.0 |
| 26/01/2024 | Use Case: Logout | Add | Add logout use case detail | 1.0 |
| 26/01/2024 | Use Case: Edit Profile | Add | Add Edit Profile Use case Detail | 1.0 |
| 27/01/2024 | Use Case: View Work Productivity | Add | Add View Work Productivity Use Case Detail | 1.0 |

| | | | | |
|------------|--|-----|--|-----|
| 27/01/2024 | Use Case: View Customer Request | Add | Add View Customer Request Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: View Statistic | Add | Add View Statistic Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: Create Account | Add | Add Create Account Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: View Account List | Add | Add View Account List Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: Edit Account | Add | Add Edit Account Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: Ban Account | Add | Add Ban Account Use Case Detail | 1.0 |
| 27/01/2024 | Use Case: Unban Account | Add | Add Unban Account Use Case Detail | 1.0 |
| 01/02/2024 | Use Case: View Request Form History | Add | Add View Request Form History Use Case Detail | 1.0 |
| 01/02/2024 | Use Case: Create Quotation | Add | Add Create Quotation Use Case Detail | 1.0 |
| 15/02/2024 | SRS Introduction | Add | Add introduction | 1.9 |
| 15/02/2024 | Licensing Requirements, Legal, Copyright and Other, Applicable Standards | Add | Add Licensing Requirements, Legal, Copyright and Other, Applicable Standards part | 1.0 |
| 15/02/2024 | Non-functional Requirement | Add | Add Usability, Reliability, Performance, Supportability, Design Constrains sections. | 1.0 |
| 15/02/2024 | Non-functional Requirement | Add | Add On-line User Documentation and Help System Requirements, Purchased Components, | 1.0 |

| | | | | |
|------------|------------------------|-----|-------------------------------------|-----|
| | | | Interfaces sections. | |
| 27/02/2024 | Use Case: View Profile | Add | Add View Profile Use Case Detail | 1.0 |

SIGNATURE PAGE

ORIGINATOR: <Name> _____ <Date>.
<Position>

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<Position>

<Name, if it's needed> _ <Date>.
<Position>

APPROVAL: <Name> _____ <Date>.
<Position>

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1 INTRODUCTION

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete **Construction Quotation System** by defining the problem statement in detail. Nevertheless, it also concentrates on the capabilities required by customers and their needs while defining high-level product features. The detailed requirements of the **Construction Quotation System** are provided in this document

1.1 Purpose

The purpose of this document is to present a detailed description of the Civil Construction Quotation System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, and the constraints under which it must operate. By leveraging modern technologies, the system aims to address the inherent challenges and complexities associated with the quotation process in the construction industry. The CSCQS is intended to export, analyze, and manage quotations due to requirements. Optimize the communication between customers, engineers, and sellers.

1.2 Scope

The Civil Construction Quotation System will be applicable to every construction project. It will be a more efficient and easier way to have a quotation system that everyone can easily access according to their rights as compared to the traditional construction's working flow. The working time can be decreased not only by automating many actions but also by the system containing many features for communicating and exchanging for the construction.

1.3 Definitions, Acronyms, and Abbreviations

| TERMS | DEFINITION |
|-------|------------|
|-------|------------|

| | |
|----------|--|
| Guest | An account holder, a lay person who needs the system to do his task efficiently and effectively |
| Customer | A guest decided to send request for a quotation |
| Admin | An account holder have rights to manage other accounts and a mission to keep the website working correctly |
| Seller | An account that receives the request of the guest, edit the request, and exchanges with the guest to achieve unification and then creates the quotation for the engineer |
| Engineer | A construction engineer who receives the quotation, considers and edits the quotation correctly on an expert view then sends it to the manager for the approval |
| Manager | A person who receives an engineer's quotation, has the right to approve and exchange with the guest for the project. Manage project and combo. |

1.4 References

This web application has been prepared on the basis of discussion with Team members, faculty members and also taken information from the following books & website.

1.4.1. Websites:

1.4.1.1. www.google.com

1.4.1.2. www.wikipedia.org

1.4.2. Books:

1.4.2.1. Fundamental of Software Engineering By Rajiv Mall.

1.4.2.2. Software Engineering : A practitioner's approach Ed. By Pressman, Roger.

1.4.2.3. Software Engineering Seventh Edition Ian Sommerville.

1.4.2.4. Software Engineering Ed.2 by Jalota & Pankaj.

1.4.2.5. Schaum's Series, "Software Engineering".

1.5 Overview

The CCQS is envisioned to be a user-friendly and efficient solution for managing the quotation process in civil construction projects. It will incorporate features such as client management, project tracking, quotation generation, document management, and reporting functionalities. The system will adhere to industry standards and best practices to ensure reliability, accuracy, and security.

2 OVERALL DESCRIPTION

Users understand construction terminology and quotation processes.

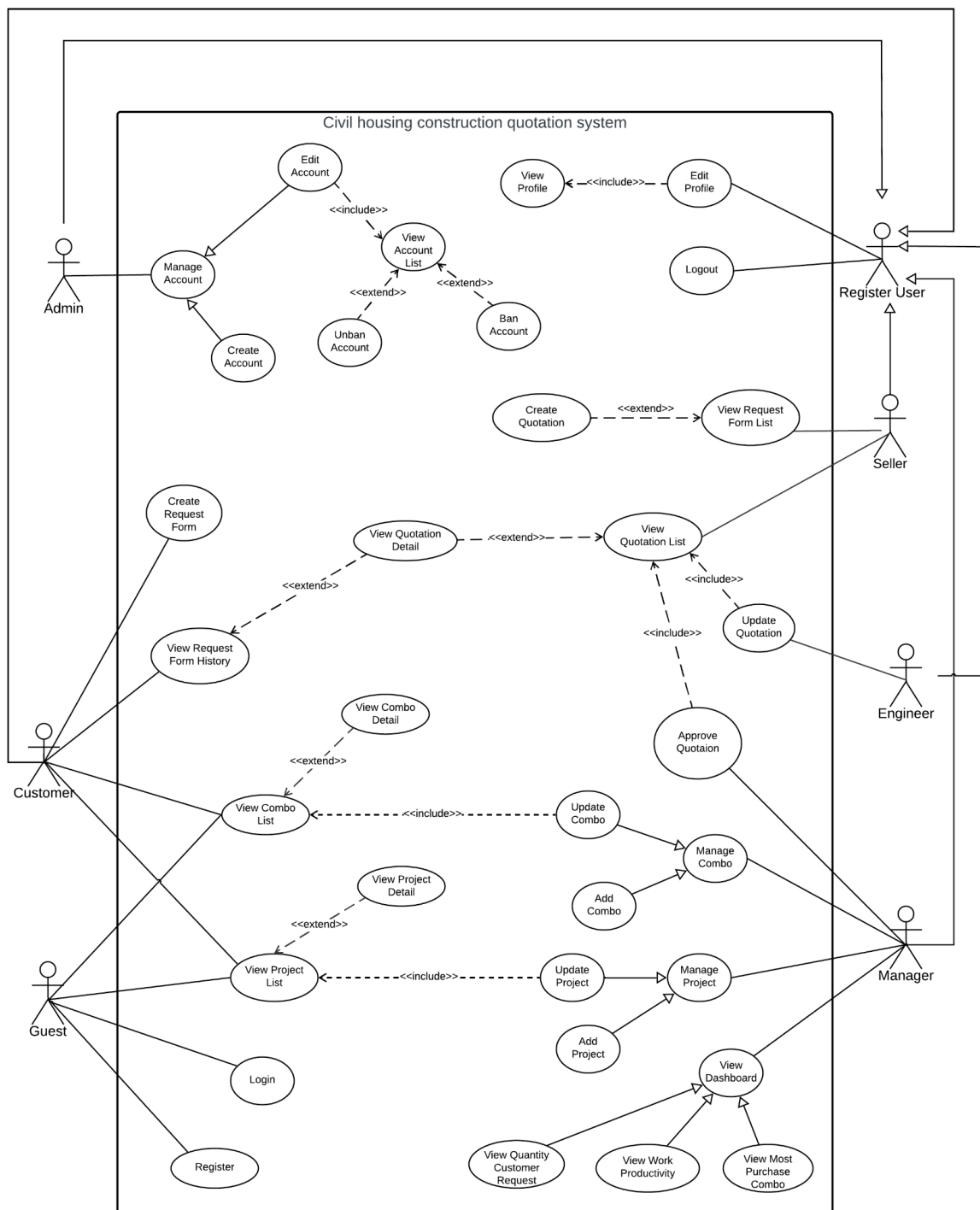
A stable internet connection is available for system access.

Necessary data on material costs, labor rates, and project specifications is readily accessible.

This overall description provides a high-level overview of the CHCQS. The following sections of the SRS will delve into detailed requirements for various functionalities, user interfaces, and technical considerations.

3 FUNCTIONAL REQUIREMENTS

3.1 Use Cases Diagram



3.2 Register

| USE CASE-1 SPECIFICATION | | | |
|--|---|--|-------|
| Use-case No. | <UC001> | Use-case Version | <1.0> |
| Use-case Name | <Register> | | |
| Author | HaiLD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |
| Actor: Guest | | | |
| Summary: This feature allows actors to create new accounts to become customers in the system. | | | |
| Triggers The actor wants to register an account. | | | |
| Preconditions: None | | | |
| Post Conditions: <ul style="list-style-type: none">• Success: Redirect to Home page• Fail: System shows error message corresponding to error code. | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | In the Home page, the actor selects the tab "Register". | System shows a form with these fields: - Username: free text input, required, length 1 – 30 - Password: free text input, required, length 8 - 30 | |
| 2 | Actor inputs username, password | | |
| 3 | Actor clicks "Register" | System validates username, password, email. If correct, create a new Customer account and redirect | |

| | | |
|--|--|---------------------------------------|
| | | to the Home page. [Exception 1, 2] |
|--|--|---------------------------------------|

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |
| 2 | Username existed in the system | System shows an error message: "Username is already used by other account". |

Relationships:

None

Business Rules:

None

3.3 Login

| | | | |
|--------------------------|---------------|------------------|-------|
| USE CASE-2 SPECIFICATION | | | |
| Use-case No. | <UC002> | Use-case Version | <2.0> |
| Use-case Name | Login | | |
| Author | HaiLD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |
| Actor: | | | |

Guest

Summary:

This feature allows actors to login to websites.

Triggers

The actor wants to authorize to the system so that he could access more functions as a customer

Preconditions:

Actor has created account in the system

Post Conditions:

- **Success:** System redirects actor to Home page
- **Fail:** System informs the message corresponding error code

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|--|
| 1 | In the Home page, the actor selects tab "Login". | System shows a form with these fields: - Username: free text input, required, length 1 – 30 - Password: free text input, required, length 8 - 30 |
| 2 | Actor inputs username, password and clicks "Login" | System validates username, password. If correct, redirect to the Home page. [Exception 1] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |

Relationships:

None

Business Rules:

None

3.4 Logout

| USE CASE-3 SPECIFICATION | | | |
|--------------------------|---------------|------------------|----------|
| Use-case No. | <UC003> | Use-case Version | <2.0> |
| Use-case Name | Log out | | |
| Author | QuyND, KhoiPM | | |
| Date | 26/01/2024 | Priority | <Normal> |

Actor:

Register User

Summary:

This feature allows actors to log out from the website.

Triggers

The actor wants to log out from the website

Preconditions:

- The actor has already logged in to the system

Post Conditions:

- The user successfully logged out from the website

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---|--|
| 1 | Register user chose the logout button | The system presents a question to get the confirmation |
| 2 | The seller selects "Yes" [Alternative 1] | System logged out and display popup message: "Successfully logged out" |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--------------------------------|-----------------------------|
| 1 | The register user selects "No" | The system stops the logout |

Exceptions:

None

Relationships:

None

Business Rules:

None

3.5 View Project List

| USE CASE-4 SPECIFICATION | | | |
|--|---|---|-------|
| Use-case No. | <UC004> | Use-case Version | <1.0> |
| Use-case Name | View Project List | | |
| Author | KhoiPM | | |
| Date | 02/02/2024 | Priority | High |
| Actor: Guest, Customer, Manager | | | |
| Summary: This feature allows actors to view all available projects | | | |
| Triggers The actor wants to view sample projects that have completed construction | | | |
| Preconditions: None | | | |
| Post Conditions: <ul style="list-style-type: none">• Success: : Show list of project overview• Fail: Show error page | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | In the Home page, the actor selects the tab "Project" in the navigation bar. [Alternative 1] | Redirect to the page that displays the list of project overview which includes some information: <ul style="list-style-type: none">- project name | |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none"> - overview description - illustrating image |
|--|--|--|

Alternative Scenario:

| Step | Actor Action | System Response |
|------|---|---|
| 1 | In Home page, scroll down to Project section and Click See All link | Redirect to the page that displays the list of project overview which includes some information: <ul style="list-style-type: none"> - project name - overview description - illustrating image |

Exceptions:
None

Relationships:
This use case is extended by View Project Detail use case

Business Rules:
None

3.6 View Project Detail

| | | | |
|---|---------------------|-------------------------|-------|
| USE CASE-5 SPECIFICATION | | | |
| Use-case No. | <UC005> | Use-case Version | <2.0> |
| Use-case Name | View Project Detail | | |
| Author | HaiLD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |
| Actor: Guest, Customer, Manager | | | |

Summary:

This feature allows actors to view details such as owner, scale, location, construction description, size.

Triggers

The actor wants to view detailed information about the Project.

Preconditions:

The status of Project is currently available.

Post Conditions:

- **Success:** Show detail information of the Project
- **Fail:** Show not found page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------|---|
| 1 | Click to the specific project card | Redirect to Project detail information page. The website shows project detail information such as: <ul style="list-style-type: none">- Project name- House style- Location- Scale- Size- Description- Completion time- Illustrating image [Exception 1] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|--|--|
| 1 | The project is unavailable at that time. | System shows error messages: "This project is unavailable right now. Please choose another one" |

Relationships:

This use case extends the View Project List use case.

Business Rules:

| |
|------|
| None |
|------|

3.7 View Combo List

| USE CASE-6 SPECIFICATION | | | |
|--|---|---|-------|
| Use-case No. | <UC006> | Use-case Version | <2.0> |
| Use-case Name | View Combo List | | |
| Author | HaiLD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |
| Actor: Guest, Customer, Manager | | | |
| Summary: This feature allows actors to view all available pre-designed combos. | | | |
| Triggers: The actor wants to refer to a few available pre-designed combos. | | | |
| Preconditions: The system has available combos. | | | |
| Post Conditions: <ul style="list-style-type: none">• Success: Show list of combo overview• Fail: Show error page | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | In the Home page, the actor selects the tab "Combo" in the navigation bar. [Alternative 1] | Redirect to the page that displays the list of combo overview which includes some information: <ul style="list-style-type: none">- Combo name | |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none"> - Overview description - Illustrating image |
|--|--|--|

Alternative Scenario:

| Step | Actor Action | System Response |
|------|---|---|
| 1 | In Home page, scroll down to Combo section and Click See All link | Redirect to the page that displays the list of combo overview which includes some information: <ul style="list-style-type: none"> - Combo name - Overview description - Illustrating image |

Exceptions:

None

Relationships:

This use case is extended by View Combo Detail use case

Business Rules:

None

3.8 View Combo Detail

| USE CASE-7 SPECIFICATION | | | |
|--------------------------|-------------------|------------------|-------|
| Use-case No. | <UC007> | Use-case Version | <2.0> |
| Use-case Name | View Combo Detail | | |
| Author | HaiLD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |

Actor:

Guest, Customer, Manager

Summary:

This feature allows actors to view details of a specific combo such as materials, tasks.

Triggers

The actor wants to view detailed information about the specific available combo.

Preconditions:

This combo is available.

Post Conditions:

- **Success:** Show detailed information of the specific combo.
- **Fail:** Show not found page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|----------------------------------|---|
| 1 | Click to the specific Combo card | Redirect to combo detail information page. The website shows the combo detail information including: <ul style="list-style-type: none"> - Materials - Tasks |

Alternative Scenario:

None

Exceptions:

None

Relationships:

This use case extends the View Combo List use case.

Business Rules:

None

3.9 View Request Form History**USE CASE-8 SPECIFICATION**

| | | | |
|---------------|---------------------------|------------------|-------|
| Use-case No. | <UC008> | Use-case Version | <2.0> |
| Use-case Name | View Request Form History | | |
| Author | DuongTD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |

Actor:

Customer

Summary:

This feature allows actors to view their request forms, including some information such as: customer name, type of construction, location, acreage, date.

Triggers:

The actor wants to view the request history.

Preconditions:

Actors log in to the website with the customer role.

Post Conditions:

- **Success:** Show a list of request form which is created by actor
- **Fail:** Show error page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|--|
| 1 | In the Home page, the actor selects the tab "Quotation" in the navigation bar. | Show a drop down list of options related to Quotation: <ul style="list-style-type: none">- Create Request- Manage Request |
| 2 | Click Manage Request. | The system checks whether the user is logged in with the customer role. If correct, redirect to request history page. The page shows the list of created request whose detail information including: <ul style="list-style-type: none">- customer name- type of construction- location- acreage- date Each request has a response button to view the detailed quotation in response. |

| | | |
|--|--|--|
| | | In the top right corner of the page has the Create button for actors to create a new request form. [Exception 1] |
|--|--|--|

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|------------------------------|----------------------------|
| 1 | Actor has not logged in yet. | Redirect to the login page |

Relationships:

This use case is extended by View Quotation Detail use case

Business Rules:

None

3.10 View Quotation Detail

| USE CASE-9 SPECIFICATION | | | |
|---|-----------------------|-------------------------|-------|
| Use-case No. | <UC009> | Use-case Version | <2.0> |
| Use-case Name | View Quotation Detail | | |
| Author | DuongTD, KhoiPM | | |
| Date | 23/01/2024 | Priority | High |
| Actor: Customer, Engineer, Manager, Seller Summary: | | | |

This feature allows actors to view detailed information of a specific quotation including: construction details, list of necessary materials and task list .

Triggers:

The actor wants to view detailed information of the quotation .

Preconditions:

Actors log in to the website.

Post Conditions:

- **Success:** Show detailed information of the quotation
- **Fail:** Show error page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---|--|
| 1 | In the Request Form table, each row has a response button. Click a response button [Alternative 1] | Show detailed information of the quotation responding to the request form be chosen which includes: Construction details : <ul style="list-style-type: none">- width- length- facade- alley- floor- room- mezzanine- rooftop floor- balcony- garden List of materials with some attributes: <ul style="list-style-type: none">- Id- Name- Category- Amount- Unit Price- Total Price List of task with some attributes: <ul style="list-style-type: none">- Id- Name- Category- Price |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--|---|
| 1 | In the Custom Quotation List, each row has a Detail button. Click the Detail button. | <p>Show detailed information of the quotation responding to the request form be chosen which includes:</p> <p>Construction details :</p> <ul style="list-style-type: none">- width- length- facade- alley- floor- room- mezzanine- rooftop floor- balcony- garden <p>List of materials with some attributes:</p> <ul style="list-style-type: none">- Id- Name- Category- Amount- Unit Price- Total Price <p>List of task with some attributes:</p> <ul style="list-style-type: none">- Id- Name- Category- Price |

Exceptions:

None

Relationships:

This use case extends View Request Form History and View Quotation List use case

Business Rules:

None

3.11 Create Request Form

| USE CASE-10 SPECIFICATION | | | | | | | | | | | | |
|---|---|---|-------|------|--------------|-----------------|---|---|--|---|----------------------|---|
| Use-case No. | <UC010> | Use-case Version | <2.0> | | | | | | | | | |
| Use-case Name | Create Request Form | | | | | | | | | | | |
| Author | DuongTD, KhoiPM | | | | | | | | | | | |
| Date | 26/01/2024 | Priority | High | | | | | | | | | |
| <p>Actor:</p> <p>Customer</p> <p>Summary:</p> <p>This feature allows actors to create and send a request in order to get the detailed quote in response.</p> <p>Triggers:</p> <p>The actor wants to receive a detailed quote with customized information.</p> <p>Preconditions:</p> <p>The actor logged in to the system as a customer.</p> <p>Post Conditions:</p> <ul style="list-style-type: none">• Success: Request form is created successfully• Fail: Show error page <p>Main Success Scenario:</p> <table><tr><th>Step</th><th>Actor Action</th><th>System Response</th></tr><tr><td>1</td><td>In the Home page, the actor selects the tab "Quotation" in the navigation bar. [Alternative 1]</td><td>Show a drop down list of options related to Quotation:<ul style="list-style-type: none">- Create Request- Manage Request</td></tr><tr><td>2</td><td>Click Create Request</td><td>The system checks whether the user is logged in with the customer role. If correct, redirect to the creating request page. The page show a form which includes 2 parts :<ul style="list-style-type: none">- User Information with these field:<ul style="list-style-type: none">- Full Name: text input, required, max-length 30</td></tr></table> | | | | Step | Actor Action | System Response | 1 | In the Home page, the actor selects the tab "Quotation" in the navigation bar. [Alternative 1] | Show a drop down list of options related to Quotation: <ul style="list-style-type: none">- Create Request- Manage Request | 2 | Click Create Request | The system checks whether the user is logged in with the customer role. If correct, redirect to the creating request page. The page show a form which includes 2 parts : <ul style="list-style-type: none">- User Information with these field:<ul style="list-style-type: none">- Full Name: text input, required, max-length 30 |
| Step | Actor Action | System Response | | | | | | | | | | |
| 1 | In the Home page, the actor selects the tab "Quotation" in the navigation bar. [Alternative 1] | Show a drop down list of options related to Quotation: <ul style="list-style-type: none">- Create Request- Manage Request | | | | | | | | | | |
| 2 | Click Create Request | The system checks whether the user is logged in with the customer role. If correct, redirect to the creating request page. The page show a form which includes 2 parts : <ul style="list-style-type: none">- User Information with these field:<ul style="list-style-type: none">- Full Name: text input, required, max-length 30 | | | | | | | | | | |

| | | |
|---|--|--|
| | | <ul style="list-style-type: none"> - Gender: dropdown list, required - Phone Number: number input, required, length 9-11 - Email: free text input, required, regex format /[^]\S+@\S+\.\S+\$/ - Detail Information with these fields <ul style="list-style-type: none"> - Construct Name: text input, required, max-length 30 - Type of construction: text input, required, max-length 30 - Location: text input, required, max-length 30 - Acreage: text input, required, max-length 30 - Description: text input, max-length 5000. <p>[Exception 1]</p> |
| 3 | Actor fill in the form and clicks into "Submit" button | <p>If the field is all valid, system shows a message "Create new request successfully " and create this request form .</p> <p>[Exception 2]</p> |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--|--|
| 1 | In the Home page, the actor selects the tab "Quotation" in the navigation bar. | <p>Show a drop down list of options related to Quotation:</p> <ul style="list-style-type: none"> - Create Request - Manage Request |
| 2 | Click Manage Request. | <p>The system checks whether the user is logged in with the customer role.</p> <p>If correct, redirect to request history page. The page shows the list of created request whose detail information including:</p> <ul style="list-style-type: none"> - customer name - type of construction - location |

| | | |
|---|---|---|
| | | <ul style="list-style-type: none"> - acreage - date <p>Each request has a response button to view the detailed quotation in response.</p> <p>In the top right corner of the page has the Create button for actors to create a new request form.</p> <p>[Exception 1]</p> |
| 3 | In the View Request History page, the actor clicks the create button. | <p>The system checks whether the user is logged in with the customer role.</p> <p>If correct, redirect to the creating request page. The page show a form which includes 2 parts :</p> <ul style="list-style-type: none"> - User Information with these field: <ul style="list-style-type: none"> - Full Name: text input, required, max-length 30 - Gender: dropdown list, required - Phone Number: number input, required, length 9-11 - Email: free text input, required, regex format <code>/^\S+@\S+\.\S+\$/</code> - Detail Information with these fields <ul style="list-style-type: none"> - Construct Name: text input, required, max-length 30 - Type of construction: text input, required, max-length 30 - Location: text input, required, max-length 30 - Acreage: text input, required, max-length 30 - Description: text input, max-length 5000. |
| 4 | Actor fill in the form and clicks into "Submit" button | <p>If the field is all valid, system shows a message "Create new request successfully " and create this request form .</p> <p>[Exception 2]</p> |

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | Actor has not logged in yet. | Redirect to the login page |
| 2 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |

Relationships:

None

Business Rules:

None

3.12 Create Account**USE CASE-11 SPECIFICATION**

| | | | |
|--|----------------|-------------------------|-------|
| Use-case No. | <UC011> | Use-case Version | <2.0> |
| Use-case Name | Create Account | | |
| Author | DuongTD, DatVT | | |
| Date | 27/01/2024 | Priority | High |
| Actor: Admin | | | |
| Summary: This feature allows admins to create a Customer account or Staff account. | | | |
| Triggers Admin wants to create a customer account or staff account for this system. | | | |
| Preconditions: <ul style="list-style-type: none">Actor has logged in to the system website with admin role. | | | |

- Actor accessed the Accounts Page successfully.

Post Conditions:

System generates an account and displays an "Account added successfully" notification.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|---|
| 1 | Actor selects the "Accounts" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page. |
| 2 | Actor choose " Add Account" option in account manager screen | <p>The system checks whether the user is logged in with the admin role. If correct, redirect to the creating request page. The page show a form which includes 2 parts :</p> <ul style="list-style-type: none"> - User Information with these field: <ul style="list-style-type: none"> - Full Name: text input, required, max-length 30 - Gender: dropdown list, required - Phone Number: number input, required, length 9-11 - Email: free text input, required, regex format /^S+@\S+.\S+\$/ - Account Information with these field: <ul style="list-style-type: none"> - Username: text input, required, minimum length 7, max-length 12. - Password: text input, required, minimum length 8, max-length 20, including at least one special character, one up case character, and one number character. |
| 3 | Actor completes the form and chooses the "Add Account" button. | System generates project and displays "Account added successfully" notification [Exception 1, 2] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|--|-----------------------------|
| 1 | At least one input field doesn't match the | System shows error messages |

| | | |
|-------------------------------|---|---|
| | constraint | corresponding to the fail constraint. |
| 2 | Email or phone number existed in the system | System shows an error message: "Account has already existed on Account List". |
| Relationships: N/A | | |
| Business Rules: N/A | | |

3.13 View Account List

| USE CASE-12 SPECIFICATION | | | |
|---|-------------------|-------------------------|-------|
| Use-case No. | UC012 | Use-case Version | <2.0> |
| Use-case Name | View Account List | | |
| Author | DuongTD, DatVT | | |
| Date | 27/01/2024 | Priority | High |
| Actor: Admin | | | |
| Summary: This feature allows the admin to get a list of accounts overview. | | | |
| Triggers The actor wants to get a list of accounts in the system. | | | |
| Preconditions: <ul style="list-style-type: none">Actor has logged in to the system website for admin with admin role.Actor accessed the Accounts Page successfully. | | | |
| Post Conditions: The system shows a list of account overviews. | | | |
| Main Success Scenario: | | | |

| Step | Actor Action | System Response |
|------|-----------------------------------|--|
| 1 | Actor selects the "Accounts" tab. | <p>The system checks to see whether the actor is valid to access</p> <p>If it is valid, the manager is navigated to the page that display the list of Accounts include:</p> <ul style="list-style-type: none"> - Role - Username - Password - Name - ID - Gender - Phone number - Address - Active Status |

Alternative Scenario:
N/A

Exceptions:
N/A

Relationships:
This use case extends Ban Account and Unban Account use case.

Business Rules:
N/A

3.14 Edit Account

| USE CASE-13 SPECIFICATION | | | |
|---------------------------|----------------|------------------|-------|
| Use-case No. | <UC013> | Use-case Version | <2.0> |
| Use-case Name | Edit Account | | |
| Author | DuongTD, DatVT | | |

| Date | 27/01/2024 | Priority | Normal |
|---|---|---|--------|
| Actor: Admin | | | |
| Summary: This use case allows Admin to edit an account's attributes on Accounts list. | | | |
| Triggers Admin wants to Edit an account's attributes on the Accounts list. | | | |
| Preconditions: <ul style="list-style-type: none">• Actor has logged in to the system website for admin with admin role.• Actor accessed the Accounts Page successfully. | | | |
| Post Conditions: System updates chosen project and displays "Combo updated successfully" notification. | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | Actor selects "Accounts" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page the list of Accounts include: <ul style="list-style-type: none">- Role- Username- Password- Name- ID- Gender- Phone number- Address- Active Status | |
| 2 | Actor chooses "Edit account" option in one of accounts on account list. | The system redirects to the editing request page. The page show a form which includes 2 parts : <ul style="list-style-type: none">- User Information with these field:<ul style="list-style-type: none">- Full Name: text input, required, max-length 30- Gender: dropdown list, required- Phone Number: number input, required, length 9-11- Email: free text input, required, regex format /^\\S+@\\S+\\.\\S+\$/- Account Information with these field:<ul style="list-style-type: none">- Username: text input, required, minimum length 7, max-length | |

| | | |
|---|--|--|
| | | 12. - Password: text input, required, minimum length 8, max-length 20, including at least one special character, one up case character, and one number character. |
| 3 | Actor updates the chosen field and clicks "Save" button. | System updates chosen account and displays "Account updated successfully" notification [Exception 1, 2] |

Alternative Scenario:
N/A

Exceptions:

| No | Cause | System Response |
|----|---|--|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |
| 2 | Email or phone number existed in the system | System shows error message: "Account has already existed on Account List". |

Relationships:
This use case includes View Account List use case.

Business Rules:
<Any concern about the business>

3.15 Ban Account

| USE CASE-14 SPECIFICATION | | | |
|---------------------------|-------------|-------------------------|-------|
| Use-case No. | <UC014> | Use-case Version | <2.0> |
| Use-case Name | Ban Account | | |

| Author | DuongTD, DatVT | | |
|---|---|---|--------|
| Date | 27/01/2024 | Priority | Medium |
| Actor: Admin | | | |
| Summary: This feature allows Admin to ban an account existing on the system. | | | |
| Triggers Admin wants to ban an account existing on the system. | | | |
| Preconditions: <ul style="list-style-type: none">• Actor has logged in to the system website for admin with admin role.• Actor accessed the Accounts Page successfully. | | | |
| Post Conditions: System changes active status to "Banned" and displays "Account has been banned" notification. | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | Actor selects "Accounts" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page the list of Accounts include: <ul style="list-style-type: none">- Role- Username- Password- Name- ID- Gender- Phone number- Address- Active Status | |
| 2 | Admin selects "Ban Account" button next to an active account. | System displays "Do you want to ban this account?" pop up with 2 buttons "Yes" and "No". [Alternative 1] | |
| 3 | Admin selects "Yes" button. | System changes chosen account's active status to "Banned" displays "Account has been banned" notification. [Exception 1] | |

Alternative Scenario:

| No | Actor Action | System Response |
|----|--------------------------------|-----------------------------------|
| 1 | Admin selects the "No" button. | System redirect to Accounts Page. |

Exceptions:

| No | Cause | System Response |
|----|--|---|
| 1 | The chosen account has "Active" status | System shows "The account has already been banned." notification. |

Relationships:

N/A

Business Rules:

The selected account must have "Active" active status.

3.16 Unban Account

| USE CASE-15 SPECIFICATION | | | |
|---------------------------|----------------|------------------|-------|
| Use-case No. | <UC015> | Use-case Version | <2.0> |
| Use-case Name | Unban Account | | |
| Author | DuongTD, DatVT | | |
| Date | 27/01/2024 | Priority | High |
| Actor: Admin | | | |

Summary:

This feature allows Admin to unban an account existing on the system.

Triggers

Admin wants to ban an account existing on the system.

Preconditions:

- Actor has logged in to the system website for admin with admin role.
- Actor accessed the Accounts Page successfully.

Post Conditions:

System changes active status to "Active" and displays "Account has been banned" notification.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|---|
| 1 | Actor selects "Accounts" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page the list of Accounts include: <ul style="list-style-type: none">- Role- Username- Password- Name- ID- Gender- Phone number- Address- Active Status |
| 2 | Admin selects the "Unban Account" button next to a banned account. | System displays "Do you want to unban this account?" pop up with 2 buttons "Yes" and "No". [Alternative 1] |
| 3 | Admin selects the "Yes" button. | System changes chosen account's active status to "Active" displays "Account has active status." notification. [Exception 1] |

Alternative Scenario:

| No | Actor Action | System Response |
|----|--------------|-----------------|
|----|--------------|-----------------|

| 1 | Admin selects the "No" button. | System redirect to Accounts Page. |
|---|--|---|
| Exceptions: | | |
| No | Cause | System Response |
| 1 | The chosen account has "Banned" status | System shows "The account has been active." notification. |
| Relationships: | | |
| N/A | | |
| Business Rules: | | |
| The chosen account must have "Banned" Active status. | | |
| The chosen account has been banned for 15 days before requesting unban. | | |

3.17 View Profile

| USE CASE-16 SPECIFICATION | | | |
|--|--------------|------------------|-------|
| Use-case No. | <UC016> | Use-case Version | <1.0> |
| Use-case Name | View Profile | | |
| Author | KhoiPM | | |
| Date | 27/02/2024 | Priority | High |
| Actor: | | | |
| Customer, Admin, Engineer, Seller, Manager | | | |

Summary:

This feature allows actors to view their personal profile stored in their account including: full name, gender, email, phone number, username, password.

Triggers:

The actor wants to view their personal profile.

Preconditions:

Actors logged in to the website.

Post Conditions:

- **Success:** Show profile information of the actor
- **Fail:** Show error page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|---|
| 1 | Click the avatar in the top right corner of the page | Show a drop down list of options related to Account: <ul style="list-style-type: none">- View Profile- Log out |
| 2 | Click View Profile | Redirect to the profile page include information such as: <ul style="list-style-type: none">- full name- gender- email- phone number- username- password |

Alternative Scenario:

None

Exceptions:

None

Relationships:

This use case is included by Edit Profile use case

Business Rules:

None

3.18 Edit Profile

| USE CASE-17 SPECIFICATION | | | |
|---------------------------|---------------|------------------|--------|
| Use-case No. | UC017 | Use-case Version | 2.0 |
| Use-case Name | Edit profile | | |
| Author | QuyND, KhoiPM | | |
| Date | 26/01/2024 | Priority | Medium |

Actor:

Register user

Summary:

This feature allow actors to edit their profile

Triggers

The actor wants to edit their profile

Preconditions:

- The actor logged in the system
- The actors are using View Profile Use Case

Post Conditions:

Success: The system displays a message "Update Successfully!".

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---|---|
| 1 | In the View Profile page, the actor click edit button | Redirect to the Edit Profile page that displays profile including those fields: <ul style="list-style-type: none">- Full Name: text input, required, max-length 30- Gender: dropdown list, required- Phone Number: number input, required, length 9-11- Email: free text input, required, regex format /[^]\S+@\S+\.\S+\$/- Username: text input, required, minimum length 7, max-length 12.- Password: text input, required, minimum length 8, max-length 20, including at least one special character, one up case character, and one number character. |
| 2 | Actors modify fields which they want and click submit | The system checks to see if fields are all valid. If correct, show the message "Edit successfully!". [Exception 1, 2] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |
| 2 | The username is duplicated | System shows messages "Username cannot be duplicated !!!" |

Relationships:

This use case includes the View Profile use case.

Business Rules:

The username modified is not duplicated in the system

3.19 View Request Form List

| USE CASE-18 SPECIFICATION | | | |
|---------------------------|---------------------------|-------------------------|-------|
| Use-case No. | <UC018> | Use-case Version | <1.0> |
| Use-case Name | View Request Form History | | |
| Author | KhoiPM | | |
| Date | 01/02/2024 | Priority | High |

Actor:

Seller

Summary:

This feature allows actors to view the waiting request forms, including some information such as: customer name, type of construction, location, acreage, date.

Triggers:

The actor wants to view the request to be quoted .

Preconditions:

Actors log in to the website with the seller role.

Post Conditions:

- **Success:** Show a list of request form which is waiting for responding
- **Fail:** Show error page

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|--|
| 1 | The actor logged in to the system with seller role | Redirect to the request page that show a list of waiting request form including: <ul style="list-style-type: none">- customer name- type of construction- location- acreage- date Each request has a response button to view the detailed quotation in response. |

Alternative Scenario:

None

Exceptions:

None

Relationships:

This use case is extended by Create Quotation use case

Business Rules:

None

3.20 Create Quotation

| USE CASE-19 SPECIFICATION | | | | | | | | | |
|---|--|---|-------|------|--------------|-----------------|---|--|---|
| Use-case No. | <UC019> | Use-case Version | <1.0> | | | | | | |
| Use-case Name | Create Quotation | | | | | | | | |
| Author | KhoiPM | | | | | | | | |
| Date | 01/02/2024 | Priority | High | | | | | | |
| <p>Actor:</p> <p>Seller</p> <p>Summary:</p> <p>This feature allows actors to create a quotation responding to a request form.</p> <p>Triggers:</p> <p>The actor wants to create a quotation .</p> <p>Preconditions:</p> <p>Actors log in to the website with a seller role.</p> <p>Post Conditions:</p> <ul style="list-style-type: none">• Success: Show a message "Create successfully"• Fail: Show error page <p>Main Success Scenario:</p> <table><tr><th>Step</th><th>Actor Action</th><th>System Response</th></tr><tr><td>1</td><td>In the Waiting Request table, each row has a "Create Construct Detail" button. Click the button which actors want to response to [Alternative 1]</td><td>Redirect to Create Quotation Page which show a form with those field:<ul style="list-style-type: none">- type of construction: select input, required- investment: select input, required- width: number input, required</td></tr></table> | | | | Step | Actor Action | System Response | 1 | In the Waiting Request table, each row has a "Create Construct Detail" button. Click the button which actors want to response to [Alternative 1] | Redirect to Create Quotation Page which show a form with those field: <ul style="list-style-type: none">- type of construction: select input, required- investment: select input, required- width: number input, required |
| Step | Actor Action | System Response | | | | | | | |
| 1 | In the Waiting Request table, each row has a "Create Construct Detail" button. Click the button which actors want to response to [Alternative 1] | Redirect to Create Quotation Page which show a form with those field: <ul style="list-style-type: none">- type of construction: select input, required- investment: select input, required- width: number input, required | | | | | | | |

| | | |
|---|---|---|
| | | <ul style="list-style-type: none"> - length: number input, required - facade: number input, required - alley: text input, required, max length 20 - number of floors: number input, required - room: number input, required - mezzanine: number input, required - rooftop floor: number input, required - balcony: checkbox input - garden: number input, required - foundation type: select input, required - basement type: select input, required - roof type : select input, required |
| 2 | Actor fill in those field and click "Create" button | If fields is all valid, system show a message "Create successfully" |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--------------|-----------------|
| | | - |

Exceptions:

None

Relationships:

This use case extends View Request Form History and View Quotation List use case

Business Rules:

None

3.21 Update Combo

| USE CASE- SPECIFICATION | | | | | | | | | | | | |
|--|---|--|--------|------|--------------|-----------------|---|----------------------------|---|---|---|--|
| Use-case No. | UC0029 | Use-case Version | 1.0 | | | | | | | | | |
| Use-case Name | Update Combo | | | | | | | | | | | |
| Author | DatVT | | | | | | | | | | | |
| Date | 23/01/2024 | Priority | Medium | | | | | | | | | |
| <p>Actor:</p> <p>Manager</p> <p>Summary:</p> <p>This feature allows actor to edit Combo within system.</p> <p>Triggers</p> <p>The actor wants to edit Combo within system.</p> <p>Preconditions:</p> <p>Actor log in to system website for admin with account has admin role. Actor accessed Combo page successfully.</p> <p>Post Conditions:</p> <ul style="list-style-type: none">• Success: System updates chosen project and displays "Combo updated successfully" notification.• Fail: System shows error message corresponding to error code. <p>Main Success Scenario:</p> <table><tr><th>Step</th><th>Actor Action</th><th>System Response</th></tr><tr><td>1</td><td>Actor selects "Combo" tab.</td><td>The system redirects to the Combo page.</td></tr><tr><td>2</td><td>Actor chooses "Edit Combo" option in one project.</td><td>The system shows the form providing:<ul style="list-style-type: none">- Combo name: free text input, length: 30 characters.</td></tr></table> | | | | Step | Actor Action | System Response | 1 | Actor selects "Combo" tab. | The system redirects to the Combo page. | 2 | Actor chooses "Edit Combo" option in one project. | The system shows the form providing: <ul style="list-style-type: none">- Combo name: free text input, length: 30 characters. |
| Step | Actor Action | System Response | | | | | | | | | | |
| 1 | Actor selects "Combo" tab. | The system redirects to the Combo page. | | | | | | | | | | |
| 2 | Actor chooses "Edit Combo" option in one project. | The system shows the form providing: <ul style="list-style-type: none">- Combo name: free text input, length: 30 characters. | | | | | | | | | | |

| | | |
|---|--|--|
| | | <ul style="list-style-type: none"> - Description: free text input, length: 50 characters - Price: number input, min: 1, max: 9999999999. |
| 3 | The actor edit fields and chooses "Save" option. [Alternative 1] | System shows a confirmation popup dialog with message: "Do you want to update this combo?" 2 options: "Yes" and "No". |
| 4 | The actor chooses "Yes" option | System displays "Updated successfully" notification and redirects to Project tab. |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--|-----------------------------|
| 1 | Actor chooses x icon in the Combo detail form. | System redirects Combo tab. |

Exceptions:

N/A

Relationships:

This use case includes the View Project List use case.

Business Rules:

The Manager can update Combo properties only.

3.22 Add Combo

| USE CASE- SPECIFICATION | | | |
|-------------------------|--------|------------------|-----|
| Use-case No. | UC0030 | Use-case Version | 1.0 |

| | | | |
|---------------|------------|----------|--------|
| Use-case Name | Add Combo | | |
| Author | DatVT | | |
| Date | 23/01/2024 | Priority | Medium |

Actor:

Manager

Summary:

This feature allows actor to create a Combo on Combo tab.

Triggers

The actor wants to create a Combo on Combo tab.

Preconditions:

Actor log in to system website for admin with account has admin role.
Actor accessed Combo page successfully.

Post Conditions:

- **Success:** System generates project and displays "Combo added successfully" notification.
- **Fail:** System shows error message corresponding to error code.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---|--|
| 1 | Actor selects "Combo" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the Combo page. |
| 2 | Actor choose "+ Add Combo" option in combo manager screen | The system redirects manager to create a combo page providing fields: <ul style="list-style-type: none">- Combo ID: length 6 characters, format: SQ + "xxxx". x is number digit.- Combo name: free text input, length: 30 characters.- Description: free text input, length: 50 characters- Price: number input, min: 1, max: 9999999999. |
| 3 | Actor chooses "Add Combo" | System generates combo and displays "Combo added successfully" notification [Exception 1, 2] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |
| 2 | Combo existed in the system | System shows error message: "Combo has already existed on Combo". |

Relationships:

N/A

Business Rules:

The Combos must belong to Standard Quotation type.

3.23 Update Project

| USE CASE- SPECIFICATION | | | |
|--------------------------|----------------|------------------|------|
| Use-case No. | UC0033 | Use-case Version | 1.0 |
| Use-case Name | Update Project | | |
| Author | DatVT | | |
| Date | 23/01/2024 | Priority | High |
| Actor: Manager | | | |
| Summary: | | | |

This feature allows actor to edit projects within system.

Triggers

The actor wants to edit projects within system.

Preconditions:

Actor log in to system website for admin with account has admin role.
Actor accessed Project page successfully.

Post Conditions:

- **Success:** System updates chosen project and displays "Project updated successfully" notification.
- **Fail:** System shows error message corresponding to error code.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--|---|
| 1 | Actor selects "Project" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page. |
| 2 | Actor chooses "Edit Project" option in one project. | The system shows the form providing: <ul style="list-style-type: none">- Project name: free text input, max length: 50- Customer name: free text input, max length: 50- Description: free text input, max length: 300- Start and end dates: format dd/mm/yyyy. |
| 4 | The actor edits fields and chooses "Save" option. [Alternative 1] | System shows a confirmation popup dialog with message: "Do you want to update this project?" 2 options: "Yes" and "Cancel" |
| 5 | The actor chooses "Yes" option | System displays "Updated successfully" notification and redirects to Project tab. |

Alternative Scenario:

| Step | Actor Action | System Response |
|------|--|-------------------------------|
| 1 | Actor chooses x icon in the Project detail form. | System redirects Project tab. |

| |
|---|
| Exceptions: N/A |
| Relationships: This use case includes View Project List use case. |
| Business Rules: The Manager can update Project properties only. |

3.24 Add Project

| USE CASE- SPECIFICATION | | | |
|---|-------------|------------------|--------|
| Use-case No. | UC0034 | Use-case Version | 1.0 |
| Use-case Name | Add Project | | |
| Author | DatVT | | |
| Date | 23/01/2024 | Priority | Medium |
| Actor: Manager | | | |
| Summary: This feature allows actors to add previous projects to the Project tab. | | | |
| Triggers The actor wants to add a previous project to the Project tab. | | | |
| Preconditions: Actors log in to the system website for a manager with an account has Manager role. Actor accessed the Project page successfully. | | | |
| Post Conditions: <ul style="list-style-type: none">• Success: System generates project and displays "Project added successfully" notification.• Fail: System shows error message corresponding to error code. | | | |
| Main Success Scenario: | | | |

| Step | Actor Action | System Response |
|------|---|---|
| 1 | Actor selects "Project" tab. | The system checks to see if the actor is valid to access, if it is valid, the manager is navigated to the page. |
| 2 | Actor choose "+ Add Project" option in project manager screen | The system redirects manager to create project page with a form providing: <ul style="list-style-type: none"> - Project ID: format "PJ"+"xxx" with x is [0-9] digit - Project name: free text input, max length: 50 - Customer name: free text input, max length: 50 - Description: free text input, max length: 300 - Start and end dates: format: dd/mm/yyyy |
| 3 | Actor input fields and chooses "Add Project's" button. | System generates project and displays "Project added successfully" notification [Exception 1, 2] |

Alternative Scenario:

None

Exceptions:

| No | Cause | System Response |
|----|---|---|
| 1 | At least one input field doesn't match the constraint | System shows error messages corresponding to the fail constraint. |
| 2 | Project existed in the system | System shows error message: "Project has already existed on Project". |

Relationships:

N/A

Business Rules:

The added project must have status "Completed."

3.25 View Work Productivity

| USE CASE- SPECIFICATION | | | |
|---|--|---|------|
| Use-case No. | UC0035 | Use-case Version | 1.0 |
| Use-case Name | View Work Productivity | | |
| Author | DatVT | | |
| Date | 27/01/2024 | Priority | High |
| Actor: Manager | | | |
| Summary: This feature allows actor to track the number of quotations from employees over the total number of orders they handle. | | | |
| Triggers The actor wants to view employees’ quotation list. | | | |
| Preconditions: Actor log in to system website for admin with account has admin role. | | | |
| Post Conditions: <ul style="list-style-type: none">• Success: Redirect to Employee’s Productivity page• Fail: System shows error message corresponding to error code. | | | |
| Main Success Scenario: | | | |
| Step | Actor Action | System Response | |
| 1 | In Home page, actor selects tab “Employee’s Productivity”. | The system redirects to Employee’s Productivity page and shows employees’ quotation list. | |

| |
|--|
| <p>Alternative Scenario:</p> <p>None</p> <p>Exceptions:</p> <p><List exceptions of this use case ></p> <p>Relationships:</p> <p><List the relationships that use case relates to></p> <p>Business Rules:</p> <p><Any concern about the business></p> |
|--|

3.26 View Customer Request

| | | | |
|---|-----------------------|-------------------------|------|
| USE CASE-2 SPECIFICATION | | | |
| Use-case No. | UC0036 | Use-case Version | 1.0 |
| Use-case Name | View Customer Request | | |
| Author | DatVT | | |
| Date | 27/01/2024 | Priority | High |
| <p>Actor:</p> <p>Manager</p> <p>Summary:</p> <p>This feature allows managers to view the number of quote requests and the number of successful quote requests. These contents will be displayed in summary on the donut dashboard and in detail on the table.</p> <p>Triggers</p> <p>The Manager wants to view the number of Customer requests.</p> <p>Preconditions:</p> <p>The actor log in to system website for admin with account has admin role.</p> <p>Post Conditions:</p> <ul style="list-style-type: none"> • Success: The system displays View Quantity Custom Request. • Fail: System shows "No data". | | | |

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---|--|
| 1 | In Home page, actor selects tab "View Quantity Customer Request". | The system shows a form with sum of customer requests. |

Alternative Scenario:

None

Exceptions:

N/A

Relationships:

N/A

Business Rules:

The customer request will be canceled if it is not handled in 7 days.

3.27 View Statistic

| USE CASE- SPECIFICATION | | | |
|--|----------------|------------------|------|
| Use-case No. | UC0037 | Use-case Version | 1.0 |
| Use-case Name | View Statistic | | |
| Author | DatVT | | |
| Date | 27/01/2024 | Priority | High |
| Actor: Manager | | | |
| Summary: This feature allows the Manager to view statistic of data system. | | | |
| Triggers | | | |

The Manager wants to view statistic of data system.

Preconditions:

Actor log in to system website for admin with account has admin role.

Post Conditions:

- **Success:** The system displays a statistic with combo and chart.
- **Fail:** System informs "No Data"

Main Success Scenario:

| Step | Actor Action | System Response |
|------|----------------------------------|---|
| 1 | Actor clicks into home admin tab | System redirects to home admin page and shows fields: <ul style="list-style-type: none">- Sum of account registered.- Sum of profile updated.- Sum of combos.- Sum of staff.- Most Purchase Combo with a chart. |

Alternative Scenario:

None

Exceptions:

N/A

Relationships:

N/A

Business Rules:

Most Purchase Combo has more than 4 Combos created.

4 NON-FUNCTIONAL REQUIREMENTS

4.1 Usability

Usability Requirement One

All text, label, and notification for end users should be written in English in default.

Usability Requirement Two

The website should support multiple languages.

Usability Requirement Three

The web should be friendly for end users to use without training.

4.2 Reliability

Reliability Requirement One

The system must perform without failure in 95 percent of use cases in two months.

Reliability Requirement Two

The system must ensure data integrity of all quotations at all processes.

Reliability Requirement Three

The system should be able to handle errors and recover from errors without data loss.

4.3 Performance

Performance Requirement One

The home page supporting 100 users per hour must provide a 5-minute or less response time in Chrome desktop browser version 58.0 or higher, including the rendering of text and images over 4G connection.

Interfaces

4.4 Supportability

Coding conventions

The system must adhere to standardized coding practices, naming conventions, and class libraries of .NET coding convention.

<https://learn.microsoft.com/en-us/dotnet/csharp/fundamentals/coding-style/coding-conventions>

Class Libraries

Preferred or required class libraries should be specified to maintain consistency across the system.

Maintenance Access

Access controls must be defined for maintenance purposes, system administrator has the right to access system databases. Developer has the right to generate database scripts under system administrator's supervision.

Maintenance Utilities:

Development tool: Visual Studio

Database Management System: Microsoft SQL Server

Bug tracking tool: Bugzilla

Project Management: Jira

Version Control tool: git

4.5 Design Constraints

Standard Development Tools

The system shall be built using a standard web page development tool that conforms to Microsoft standards.

Standard Development Tools

There are no memory requirements

The computers must be equipped with web browsers such as Internet explorer.

The product must be stored in such a way that allows the client easy access to it.

Response time for loading the product should take no longer than five minutes.

A general knowledge of basic computer skills is required to use the product.

4.6 On-line User Documentation and Help System Requirements

As the product is Construction Quotation System , On-line help system becomes a critical component of the system which shall provide –

It shall provide specific guidelines to a user for using the E-Store system and within the system.

To implement online user help, link and search fields shall be provided

4.7 Purchased Components

Not Applicable

4.8 Interfaces

User Interfaces

- The UI for end users must support Vietnamese
- The UI for admin can be flexible in Vietnamese or English

Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

Software Interfaces

- N/A

Communications Interfaces

- The system should use HTTP method to transfer data

4.9 Licensing Requirements

Not Applicable

4.10 Legal, Copyright, and Other Notices

The project should display the claimers, copyright, wordmark, trademark, and product warranties of the company

4.11 Applicable Standards

It shall be as per the industry standard.

5 SUPPORTING INFORMATION