

Lab 2: UConnect Product Specification

Team Sapphire

Aria Ashby, Anna Foust, Tygerlily Garner, Caelan Larsen,
Caiden Petty, Zara Wasique, Jasmine Willis

Old Dominion University

CS411W

Professor T. Kennedy

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3 Requirements

3.1 Functional Requirements

3.1.1 *Profile*

3.1.1.1 Introduction/Purpose of Feature

This feature allows users to create a profile to describe themselves, their skills, and their interests.

3.1.1.2 Stimulus/Response

Stimulus (O: Foust): When users register to UConnect, they will be prompted to enter their name, a biography, and choose Tags that describe their skills and interests.

Response (O: Foust): The user's profile will be viewable by all UConnect users and searchable via by name and by tags attached to the post.

3.1.1.3 Associated Functional Requirements

PR1 Profile Creation (O: Foust) - When signing up for the service, the system must create a new profile for that user.

PR2 Viewing Profiles (O: Foust) - The system must allow users to view profiles.

PR3 Editing Profiles (O: Foust) - The system must allow users to edit their profile.

PR4 Adding User Biography (O: Foust) - The system must allow users to add a biography of up to 1,000 characters.

PR5 Profile Picture (O: Foust) - The system must allow users to add a profile picture.

3.1.2 *Posts*

3.1.2.1 Introduction/Purpose of Feature

This feature allows Project Launchers to create uniquely identifiable posts via keywords and tags that may be viewed by other users.

3.1.2.2 Stimulus/Response

Stimulus (O: Ashby, M1: Wasique): Project Launchers will click the "Launch" button to be taken to the "Create a Post" page, where they can add a project title, a project description, a desired number of Seekers, an expected timeline in months, and tags to their project. They will then be able to save and post the project publicly from this page.

Response (O: Ashby, M1: Wasique) - The post created by the Project Launchers will be viewable by any user and searchable via tags attached to the post.

3.1.2.3 Associated Functional Requirements

PO1 Post Description Creation (O: Ashby) - When creating a post, the system must allow a user to add a description for the project.

PO2 View All Posts Created by Self (O: Ashby) - The system must allow any given user to see all the posts that they have created.

PO3 View All Posts Created by a Specific User (O: Ashby) - The system must allow all posts from a user to be found and observable via their profile.

PO4 Delete Posts (O: Ashby) - The system must allow the deletion of created posts by the Project Launcher.

PO5 Define the Number of Required Collaborators (O: Ashby) - The system must allow a Project Launcher to set the number of requested collaborators for a project.

PO6 Post Name Creation (O: Ashby) - When creating a post, the system must allow a user to set a name or title for the post.

PO7 Recency Score Calculation (O: Ashby) - The system must calculate and assign a dynamic, automatically updated recency score to posts.

3.1.3 Messages

3.1.3.1 Introduction/Purpose

Messages over UConnect will be the initial contact method between users. Upon request to join a post, the Project Seeker will enter a message feed with the corresponding Project Launcher.

3.1.3.2 Stimulus/Response

Stimulus (O: Willis): Project Seekers will click the “Connect!” button on a project page to send a message to a Project Launcher from their inbox.

Response (O: Willis): Messages between Project Launchers and Project Seekers will be viewable in the user’s inbox.

3.1.3.3 Associated Functional Requirements

M1 Send a Message (O: Willis) - The system shall allow a Project Seeker to send a private message to a Project Launcher from a posted project page.

M2 View Sent Messages (O: Foust) - The system shall allow users to access their inbox to view messages they have sent or received.

M3 Inbox Content (O: Foust) - When viewing messages in their inbox, users shall be able to see the sender or recipient of a message, the date and time a message was sent or received and the subject of the message.

M4 Subject of a Message (O: Willis) – The subject line of a message shall be the title of the project from which the Project Seeker messaged the Project Launcher.

3.1.4 *Searching and Tags*

3.1.4.1 Introduction/Purpose

This feature allows users to search for published, active projects, and non-graduated, active UConnect users, based on a list of curated tags.

Tags are used for both user profiles and posts; they are designed to help the user sort through similar posts based on an input through the search tab. Tags on posts created by a Project Launcher are limited to a maximum of 6 per post; however, to launch a project the user is required to add at least one tag. Tags facilitate project seeking by allowing Seekers to quickly look for projects in their interests. Tags are also applicable to profiles. Profile tags are used to display a user's interests and areas of expertise.

3.1.4.2 Stimulus/Response

Profile Creation Stimulus: Users will be required to select tags from a dropdown from the universal list of tags to attach to their profile. Users must select from a minimum of one (1) tag and can choose from a maximum of six (6) tags

Profile Creation Response: Users will see the tags on their profile that they selected, and their profile will be displayed when searched by other users who select the same tag(s).

Project Creation Stimulus: Project Launchers will click on a drop-down menu in the “Create a Post” page to view a list of tags. They will then be able to select from a minimum of one (1) tag and can choose from a maximum of six (6) tags to add to the post.

Project Creation Response: After the post is published, Project Seekers will be able to view the post on the Search Page.

Search Stimulus: Users access the search functionality on a dedicated page. The user searches by selecting from a minimum of one (1) tag and can choose from a maximum of six (6) tags to search on.

Search Response: The system displays relevant projects and user profiles from the user-selected tags.

3.1.4.3 Associated Functional Requirements

ST1 Universal Tag List (O: Garner, M1: Larsen) – The system must provide users with a curated, universal (i.e. used for both profiles and posts) list of tags.

ST2 Tag Selection (O: Larsen) - When choosing tags for a profile or post, the system must present a dropdown menu from which the user may choose.

ST3 Profile Tags (O: Larsen, M1: Foust) - When creating or editing their profile, the system must allow the user to choose from one (1) to six (6) tags to attach therein.

ST4 Post Tags (O: Larsen, M1: Ashby, M2: Wasique) - When creating or editing a post, Project Launchers shall be able to choose between one and six tags to attach therein.

ST5 Tag Removal (O: Larsen) - When editing a profile or post, the system must allow the user to remove unwanted tags.

ST6 Tag Selection Constraints (O: Garner) – The system must limit users to a minimum of one (1) tag to a maximum of six (6) tags when searching.

ST7 Post List Filtering (O: Ashby, M1: Foust, M2: Larsen) - When browsing posts, the system must allow users to filter the list via identifiable tags.

ST8 Searching Profiles (O: Foust, M1: Larsen) - When browsing profiles, the system must allow users to filter the list via identifiable tags

ST9 Tag Search Matching (O: Garner) - The system, when the user is searching on tags, must only display projects and/or users that contain one or more of the selected tags the user searched on.

ST10 Tag Search Prioritization (O: Larsen) - When performing a tag search, the system shall list posts and profiles in descending order of the number of matching tags (so that the posts with the most matching tags are listed first i.e. at the top).

3.2 Performance Requirements

PF1 Search Performance (O: Larsen) - The system shall not take longer than 90 seconds to display the results of a post or profile search to the user.

PF1.1 Search Timeout (O: Larsen) - The event in which the results take longer than 90 seconds to display should not occur under normal circumstances, and in such an event the system must display a message informing the user that the search has timed out.

3.3 Constraints

3.3.1 *Compatibility*

The system must be accessible and usable from all major web browsers (such as Firefox, Chrome, Edge, and Safari). (O: Ashby)

An internet connection is required to access the system. (O: Foust)

3.4 Non-Functional Requirements

3.4.1 *Reliability*

The system must have a mean time between failures rate of at least 2,000 hours. (O: Ashby)

3.4.2 *Availability*

The system must have a 99.9% uptime over any given period to ensure that users are able to properly utilize the software. (O: Ashby)

3.4.3 *Security*

All database information will be backed up every 48 hours to ensure that in a worse-case scenario, a proper reroll can occur. (O: Ashby, M: Larsen)

3.4.4 *Maintainability*

The system's code must have proper documentation to ensure that sufficient and efficient maintenance can occur. (O: Ashby)

3.4.5 *Portability*

The system, being web based, is designed to work on all major operating systems and will be compatible with multiple browsers and resolutions. (O: Ashby)