

Elaboration Phase

Howl's Moving Castle

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System Requirements

System Requirements include all the activities a system will need to do and all the components the system will need to include to accomplish its goals

Functional Requirements

1. Users

1.1. Mentors

- 1.1.1. The new system will enroll mentors.
- 1.1.2. The new system will allow enrolled mentors to login.
- 1.1.3. The new system will allow mentors to post opportunities for students.
- 1.1.4. The new system will provide guidelines for mentors in some capacity.
- 1.1.5. The new system will address frequently asked questions by mentors and provide answers and advice.
- 1.1.6. The new system will allow mentors to post to discussion boards.
- 1.1.7. The new system will allow mentors to post to job boards.
- 1.1.8. The new system will allow mentors to post to the mentor board with increased capabilities.
- 1.1.9. The new system will allow mentors to communicate with mentees/students.
- 1.1.10. The new system will allow mentors to link their social accounts (LinkedIn, Twitter, etc.).
- 1.1.11. The new system will allow mentors to build a profile and customize their experience and preferences.
- 1.1.12. The new system will provide optional surveys to mentors for data gathering and feedback.
- 1.1.13. The new system will allow mentors to communicate to administrators if special issues or concerns arise.

1.2. Students

- 1.2.1. The new system will enroll students.
- 1.2.2. The new system will allow enrolled students to login.
- 1.2.3. The new system will allow students to search for mentors and mentoring opportunities.
- 1.2.4. The new system will provide guidelines for students in some capacity.
- 1.2.5. The new system will address frequently asked questions by students and provide answers and advice.
- 1.2.6. The new system will allow students to post to discussion boards.
- 1.2.7. The new system will allow students to browse job boards and search for specific jobs being offered.

- 1.2.8. The new system will allow students to link their social accounts (LinkedIn, Twitter, etc.).
 - 1.2.9. The new system will allow students increased networking features such as linking with students in the same class.
 - 1.2.10. The new system will allow a richer search preferences when viewing mentors, jobs, and opportunities to tailor the experience more for their needs.
 - 1.2.11. The new system will allow students to build a profile and customize their experience and preferences.
 - 1.2.12. The new system will provide optional surveys to mentors for data gathering and feedback.
 - 1.2.13. The new system will allow students to communicate to administrators if special issues or concerns arise.
- 1.3. Partners
 - 1.3.1. The new system will allow for account creation for partners(organizations, businesses, groups, etc.)
 - 1.3.2. The new system will provide guidelines to partners.
 - 1.3.3. The new system will allow partners to link their social accounts (LinkedIn, Twitter, etc.).
 - 1.3.4. The new system will allow these types of users the ability to post to job boards and event boards strictly.
 - 1.3.5. The new system will allow partners the ability to build a profile with alternate capabilities to mentors.
 - 1.3.6. The new system will allow partners to communicate to administrators if special issues or concerns arise
2. Administrative Functions
 - 2.1. The new system will allow administrators to push relevant events and information to users through a message board.
 - 2.2. The new system will allow administrators to create and edit a photo carousel with relevant pictures.
 - 2.3. The new system will allow administrators to monitor and manually remove or add users.
 - 2.4. The new system will allow administrators access to all discussion boards, job boards, and message boards with the ability to monitor and make changes to content (i.e. removing posts, comments, or editing posts).
 - 2.5. The new system will allow a specific communication channel (email, form, or other) for users to contact administrators with urgent concerns.
3. Payments/Donations
 - 3.1. The new system will allow users to make donations through the website via credit or debit payments.

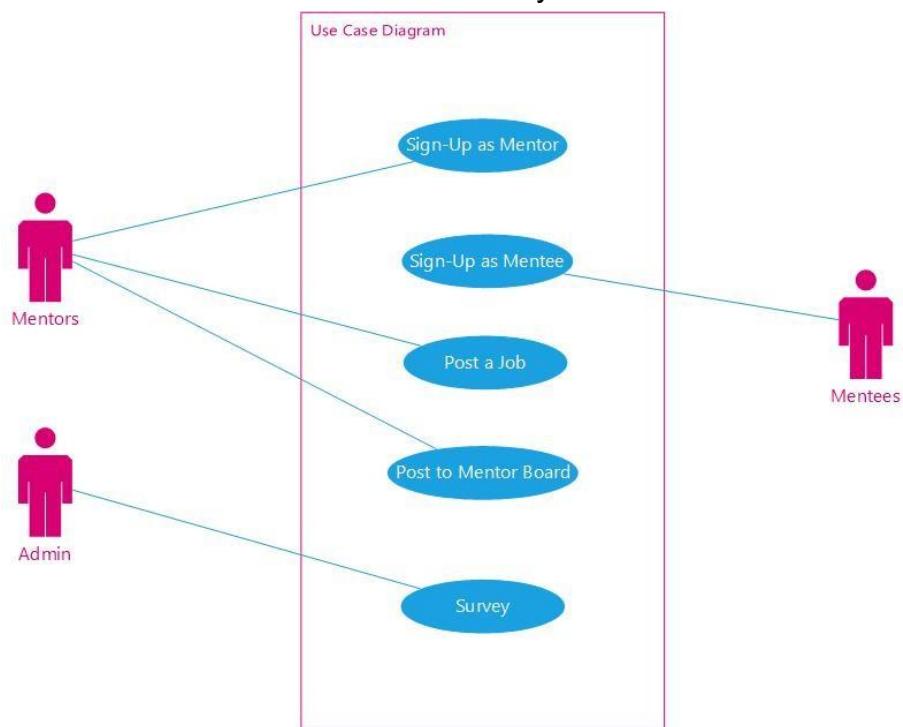
Non-Functional Requirements

1. Performance
 - 1.1. Speed
 - 1.1.1. The new system will provide a 6 second response time or less in a desktop browser over an LTE connection.
 - 1.2. Capacity.
 - 1.2.1. The new system will support up to 500 users initially, with potential to expand the number of supported users.
 - 1.3. Availability
 - 1.3.1. The new system will be available 24 hours a day 7 days a week 365 days a year.
2. Portability/Compatibility
 - 2.1. The new system will be compatible with multiple operating systems.
 - 2.2. The new system will be compatible with multiple web browsers.
 - 2.3. The new system will be accessible on mobile devices.
3. Security
 - 3.1. The new system will allow for secure login using Google reCaptcha to prevent bots and spam accounts.
 - 3.2. The new system will allow for secure account creation preventing bots and spam accounts.
 - 3.3. The new system will allow for secure payment for donations to protect user information.
4. Compliance
 - 4.1. The system will adhere to all necessary standards for legal requirements and regulations, security, licensing, etc.

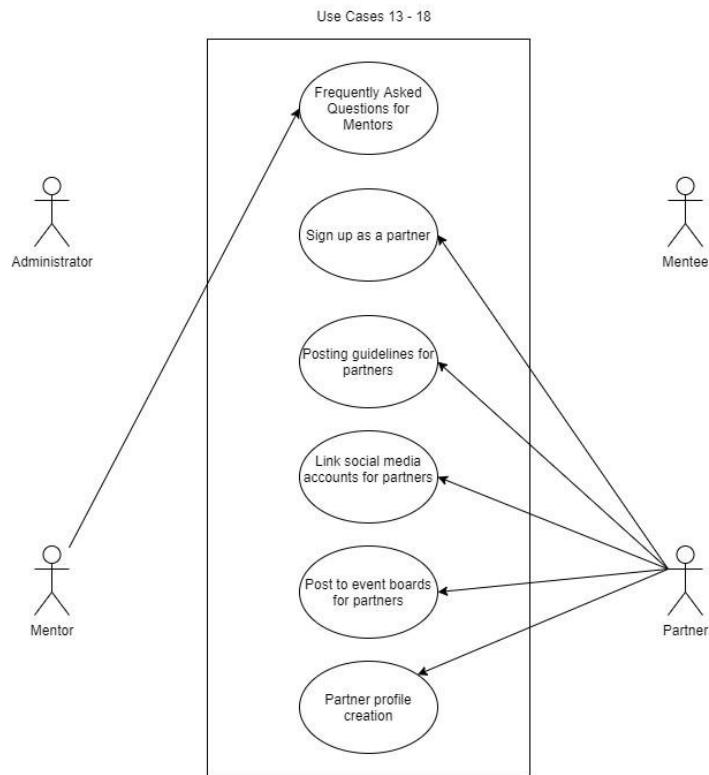
Use Case Diagrams

Use case diagrams explain how different users interact with use cases. The actor is the person and the lines represent what that actor will be doing with the system. Everything is then enclosed in a boundary box.

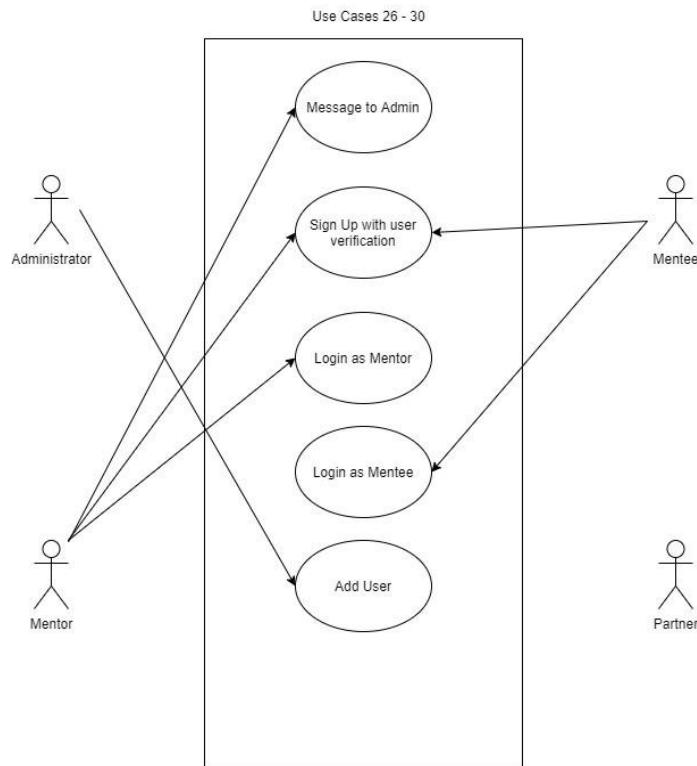
In this use case we have the actors being mentors, students and the admins. Here we can see the mentor and mentees will be able to sign up, the mentors can post jobs as well as post their profile to the mentor board. Admins will have the availability to survey the actors of the system.



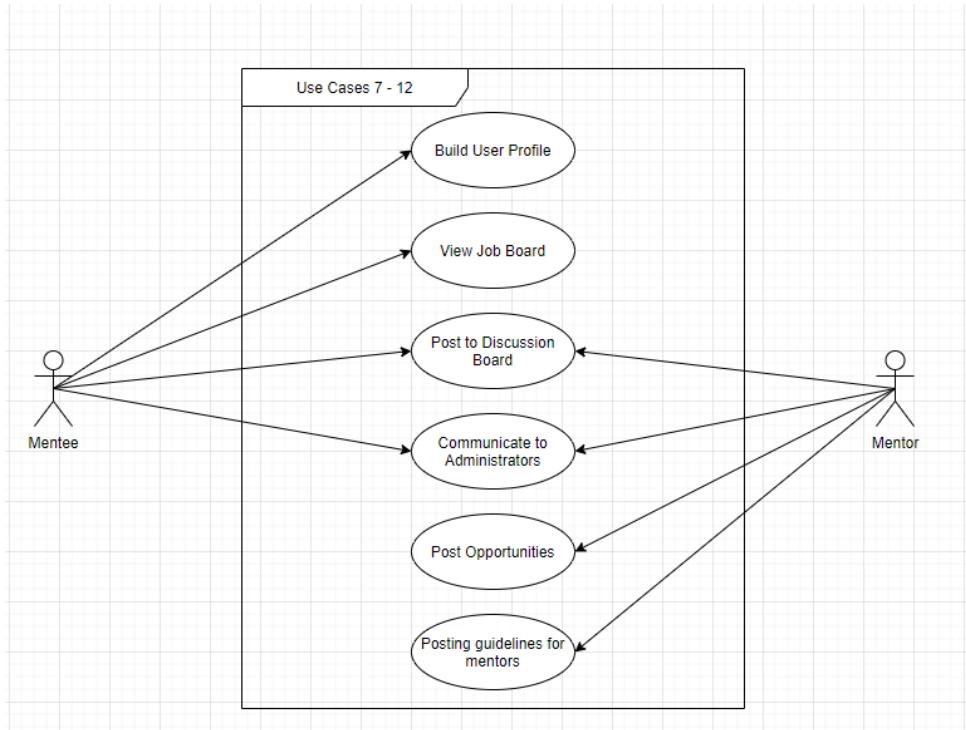
In these use cases we have the actors being mentors and the Partners. The only use case the mentors have in this group is the FAQ section. The Partners will be able to Sign up, review post guidelines, link social media accounts, post to event boards and create their profiles.



For Use-Cases 26 - 30 the actors active are Mentors, Mentees, and Administrators. The actions that can be taken depicted here are the Messages to Administrator, Sign-Up User Verification, Login as Mentor and Mentee, as well as the Add User function.

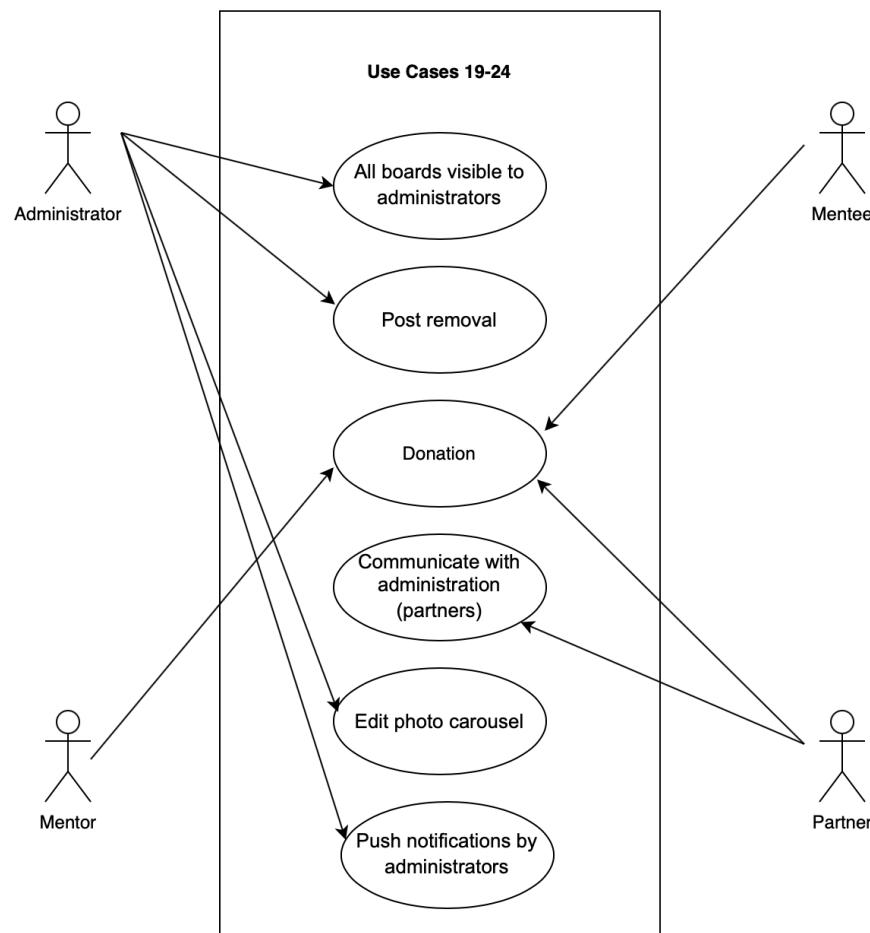


For Use Cases 7-12 we only have mentees and mentors as actors. These use cases outline several functions granted to mentees and mentors as users in the system, such as building a profile, communicating to administrators, and posting to discussion boards.

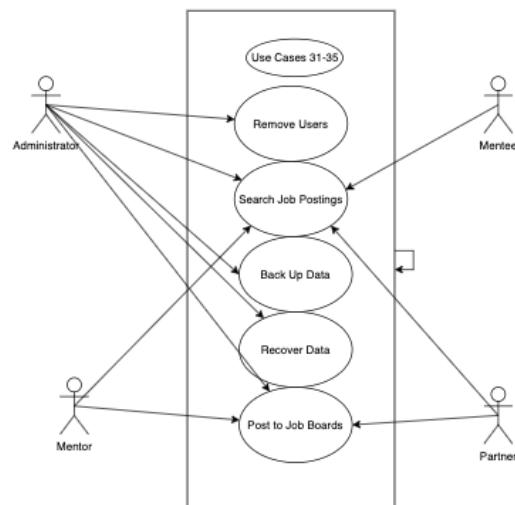


This use case diagram depicts six different activities, which involve one or more of four different actors. The four actors present in this diagram are the administrator, mentor, mentee, and partner. Action by the administrator is necessary in order to view all boards (which is only allowed by administrators), remove a post, edit the photo carousel on the website, and send a push notification to the side users. A mentor, mentee, or partner can make a donation which is why they are all connected to the donation use case.

Partners are also able to send private messages to administrators in order to communicate questions or concerns, so action from them is necessary in that use case.



This use case diagram shows five different activities, which includes four different actors; Administrators, Mentors, Mentee, and Partner. The administrator has access to do all of the following: Remove users, search job postings, back up data, and recover data, as well as find job boards. Mentors have access to search job postings, and also to post on job boards. While the mentee only can search job postings. Finally the partner can do both of the following: search job postings, and post on them as wells.



Trace Matrix

The trace Matrix ensures the completion of the functional system requirements and use cases by matching them up and making sure each functional requirement matches a use case

A1	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB				
	R 1.1.4 The new system will enroll mentors.		X																												
1		R 1.1.2 The new system will allow credentialed users to login.			X																										
2	Sign Up as a Mentor					R 1.1.3 The new system will allow mentors to post opportunities for students.																									
3	Sign Up as a Mentee						R 1.1.5 The new system will provide guidelines for mentors in scarce capacity																								
4	Post to Job Board							R 1.1.6 The new system will address questions by mentors and provide answers and advice.																							
5	Link Social Media Accounts								R 1.1.7 The new system will allow mentors to post to job boards.																						
6	Post removal									R 1.1.8 The new system will allow mentors to post to the mentor board from increased capabilities.																					
7	Optional Surveys									R 1.1.9 The new system will allow mentors to post to a document (LinkedIn, Twitter, etc.).																					
8	Build User Profile										R 1.1.12 The new system will allow mentors to post to the mentor board for data gathering and feedback.																				
9	View and Search Job Board										R 1.1.13 The new system will allow mentors to post to the mentor board for administration if special issues or concerns arise.																				
10	Post to Discussion Board											R 1.2.1 The new system will enroll students.																			
11	Communicate with administrators											R 1.2.2 The new system will allow enrolled students to login..																			
12	Post Opportunities			X																											
13	Posting guideline for mentors				X																										
14	Frequently Asked Questions for Mentors												X																		
15	Sign up as a partner																														
16	Posting guidelines for partners																														
17	Link social media accounts for partners													X																	
18	Post to event and job boards for partners																														
19	Partner profile creation																														
20	All boards visible to administrators																														
21	Post removal																														
22	Donation																														
23	Push notifications by administrators																														
24	Communicate with administrators [partners]																														
25	Edit photo carousel																														
26	Monitor users																														
27	Contact admins via messaging																														
28	Sign up with user verification																														
29																															
30																															
31																															
32																															

For full view:

https://docs.google.com/spreadsheets/d/11_B0s_OLkseN_LPgPsZITx6-AdWYmJPZkRb_bRFy_uI0/edit?usp=sharing

Use Cases

Use Case Specification: Signup as Mentee

1. Use-Case Name

1.1 Brief Description

Student should be able to create an account as a mentee, allow for the admin to approve or deny it. With an account you will have full access to the web application.

2. Flow of Events

2.1 Basic Flow

- The actor clicks the “Sign up as a Mentee” button.
- The actor then fills out the sign up answering the questions.
 - The questions are but not limited too.
 - First Name
 - Last name
 - Upload a Headshot.
 - Email
 - Mobile Number
 - Gender
 - Ethnicity
 - Date of Birth
 - Current city
 - Current State
 - Current Country
 - Hobbies
 - CIS concentration
 - Classes completed.
 - LinkedIn
 - Actor can click reset to clear all the answers.
 - Actor can click submit to then be accepted or denied begin alternate flow 1

2.1.1 First Alternative Flow

- Admin can Deny the application.
- Admin can Accept the application.

3. Special Requirements

3.1 First Special Requirement

N/A

4. Pre-conditions

4.1 Pre-condition One

Actor must Click "Sign up as mentee."

5. Post-conditions

5.1 Post-condition One

Actor waits for approval or denial from Admin.

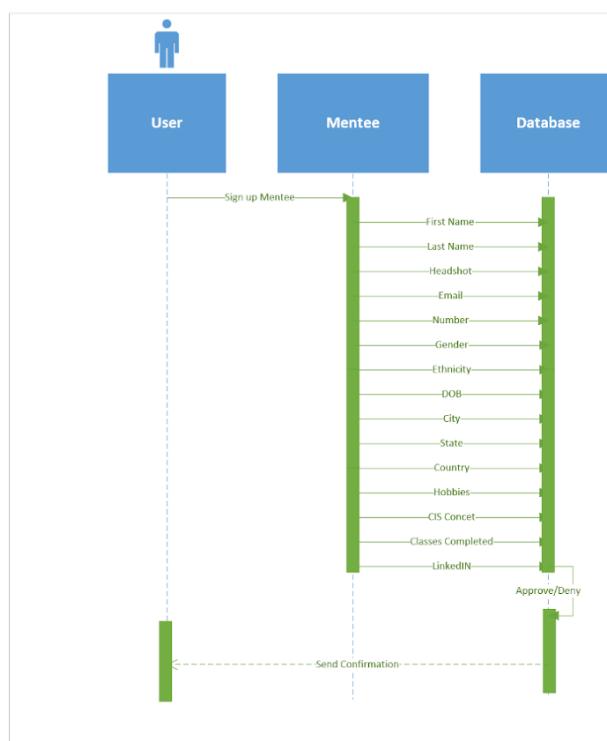
6. Extension Points

6.1 Name of Extension Point

N/A

MAIN FLOW

- The actor clicks the “Sign up as a Mentee” button.
- The actor then fills out the sign up answering the questions.
 - The questions are but not limited too.
 - First Name
 - Last name
 - Upload a Headshot.
 - Email
 - Mobile Number
 - Gender
 - Ethnicity
 - Date of Birth
 - Current city
 - Current State
 - Current Country
 - Hobbies
 - CIS concentration
 - Classes completed.
 - LinkedIn
- Actor can click reset to clear all of the answers
- Actor can click submit to then be accepted or denied begin alternate flow 1



Use Case Specification: Sign Up as a Mentor

1. Use-Case Name

1.1 Brief Description

Mentors should be able to create an account. On sign up, an administrator should be able to view the mentor's account and manually add or remove it.

2. Flow of Events

2.1 Basic Flow

- First, Actor clicks the “Sign up as a Mentor” button.
- The Mentor signup page is then brought up.
- The Actor answers all questions provided.
 - These questions are but not limited too.
 - First Name
 - Last Name
 - Upload headshot
 - Email ID
 - Mobile Number
 - Gender
 - Ethnicity
 - Date of Birth
 - Current Residing City
 - Current Residing State
 - Current Student
 - Hobbies
 - Current Employment
 - Current Job title
 - Day to day activities
 - Strengths
 - Linked IN
 - The Actor can click the reset button to clear all of his answers restarting the process.
 - The Actor can click the Submit button allowing for the Admin to approve or deny. Begin first alt flow.

2.2 Alternative Flows

The Admin Can approve the submission allowing the mentor access to the web application.

- The Admin can deny the submission denying access to the web application.

3. Special Requirements

N/A

4. Pre-conditions

4.1 User Clicks “Sign Up as Mentor”

5. Post-conditions

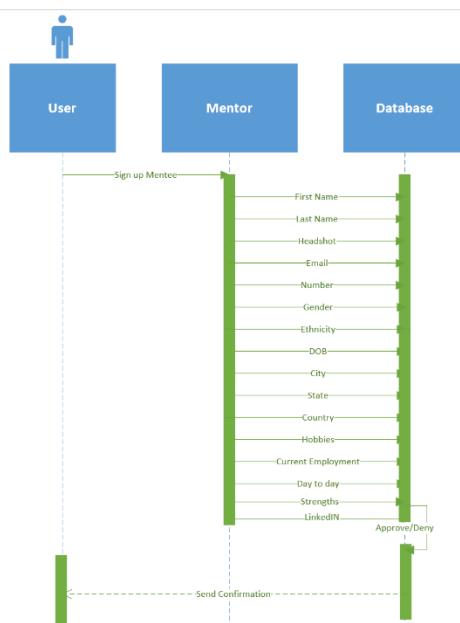
5.1 User has submitted an application to be reviewed by admin.

6. Extension Points

N/A

MAIN FLOW

- First, Actor clicks the “Sign up as a Mentor” button.
- The Mentor signup page is then brought up.
- The Actor answers all questions provided.
 - These questions are but not limited too.
 - First Name
 - Last Name
 - Upload headshot
 - Email ID
 - Mobile Number
 - Gender
 - Ethnicity
 - Date of Birth
 - Current Residing City
 - Current Residing State
 - Current Student
 - Hobbies
 - Current Employment
 - Current Job title
 - Day to day activities
 - Strengths
 - LinkedIn
- The Actor can click the reset button to clear all of his answers restarting the process.
- The Actor can click the Submit button allowing for the Admin to approve or deny. Begin first alt flow.



Use Case Specification: Post to Job Board

1. Use-Case Name

1.1 Brief Description

Mentors can add posts to the job board about potential employment options for mentees.

2. Flow of Events

2.1 Basic Flow

- Actor as a mentor clicks “Post Job/internship”
- Actor is prompted with questions such as
 - Company Name
 - Upload Company Image
 - Job Title
 - Compensation
 - Job type
 - Estimated Start date
 - Is this Job Remote?
 - City of Job
 - State of Job Location
 - Country of Job location
 - Preferred Knowledge or qualifications
 - Job Description
 - Link or email to apply.
- Actor can then click Reset to reset all the questions.
- Actor can click submit to be approved by admin for posting.

2.2 Alternative Flows

2.2.1 First Alternative Flow

- Admin can then deny application.
- Admin can approve application.

2.2.1.1 An Alternative Sub flows

N/A

2.2.2 Second Alternative Flow

N/A

3. Special Requirements

3.1 First Special Requirement

N/A

4. Pre-conditions

4.1 Pre-condition One

Actor clicks “Post job/internship button.”

5. Post-conditions

5.1 Post-condition One

Actor must wait to be approved by admin before posting.

6. Extension Points

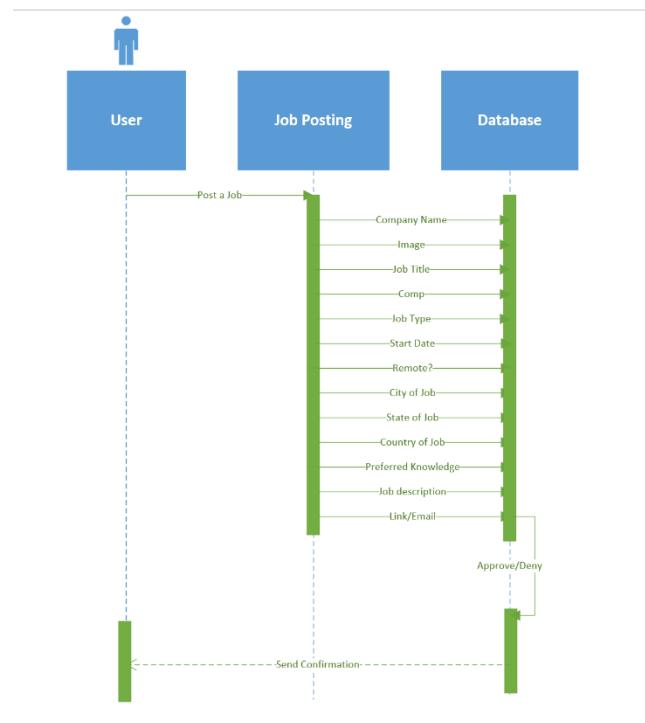
6.1 Name of Extension Point

N/A

MAIN FLOW

1.1 Basic Flow

- Actor as a mentor clicks “Post Job/internship”
- Actor is prompted with questions such as
 - Company Name
 - Upload Company Image
 - Job Title
 - Compensation
 - Job type
 - Estimated Start date
 - Is this Job Remote?
 - City of Job
 - State of Job Location
 - Country of Job location
 - Preferred Knowledge or qualifications
 - Job Description
 - Link or email to apply
- Actor can then click Reset to reset all of the questions
- Actor can click submit to be approved by admin for posting



Use Case Specification: Post to Mentor Board

1. Use-Case Name

1.1 Brief Description

Allows for the mentor to post themselves to the mentor board to become a mentor.

2. Flow of Events

2.1 Basic Flow

- Actor clicks “mentor dashboard”.
- Actor clicks radio button “Allow profile to be published.”
- Database sends back information to mentor page.
 - First Name
 - Last Name
 - Upload headshot
 - Email
 - Mobile number
 - Gender
 - Ethnicity
 - DOB
 - Current City
 - Current State
 - Current Country
 - Hobbies
 - Current Employment
 - Current Job title
 - Day to Day
 - Strengths
 - LinkedIn
- Information is posted to the mentor board.

2.2 Alternative Flows

2.2.1 First Alternative Flow

N/A

2.2.1.1 An Alternative Sub flows

N/A

2.2.2 Second Alternative Flow

N/A

3. Special Requirements

3.1 First Special Requirement

N/A

4. Pre-conditions

4.1 Pre-condition One

Actor pushes the “Allow profile to be published.” button.

5. Post-conditions

5.1 Post-condition One

The mentors page is then posted to the mentor board.

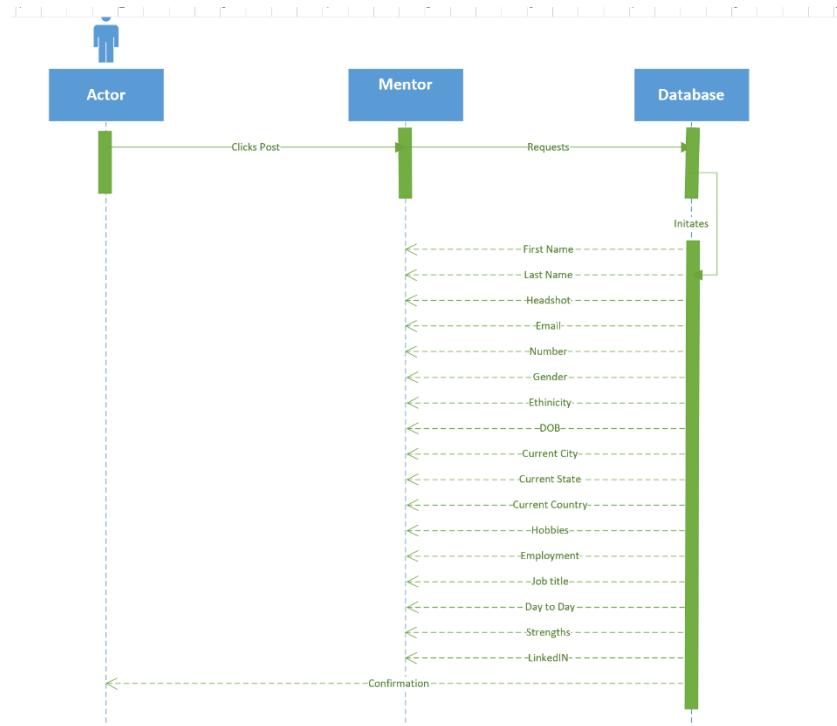
6. Extension Points

6.1 Name of Extension Point

N/A

MAIN FLOW

- Actor clicks “mentor dashboard”.
- Actor clicks radio button “Allow profile to be published.”
- Database sends back information to mentor page.
 - First Name
 - Last Name
 - Upload headshot
 - Email
 - Mobile number
 - Gender
 - Ethnicity
 - DOB
 - Current City
 - Current State
 - Current Country
 - Hobbies
 - Current Employment
 - Current Job title
 - Day to Day
 - Strengths
 - LinkedIn
- Information is posted to mentor board.



Use Case Specification: All boards visible to administrators

1. All boards visible to administrators

1.1 Brief Description

An administrator should be able to view all posts on event, job, and mentor boards.

2. Flow of Events

2.1 Main Flow

<u>Step</u>	<u>Step Description</u>
Administrator signs in	Administrator must sign in to their account with preexisting administrative privileges
Administrator views board	Administrator clicks on link to view a type of board (job, event, or mentor)
Administrator views posts	The page loads and the administrator can view all posts

2.2 Alternative Flows

2.2.1 *A non admin user attempts to access a board they do not have permissions for*

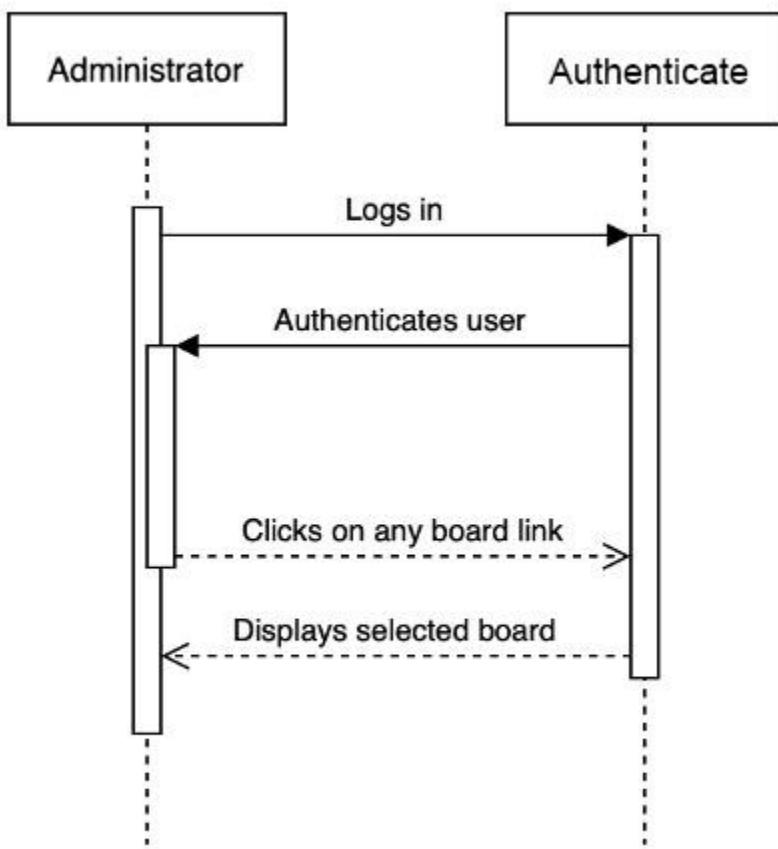
<u>Step</u>	<u>Step Description</u>
User signs in	User logs in to website with preexisting account
User attempts to view board they do not have permission to access	User clicks on link to view a type of board (job, event, or mentor)
User encounters error	An alert is displayed informing the user they do not have access to the specified page and they are redirected to the home page.

3. Pre-conditions

3.1 Administrator must be signed into the system

4. Post-conditions

4.1 The system should display whatever board the main actor has selected



Use Case Specification: Post removal

1. Post removal

1.1 Brief Description

Administrators should be able to remove content that violates site guidelines

2. Flow of Events

2.1 Main Flow

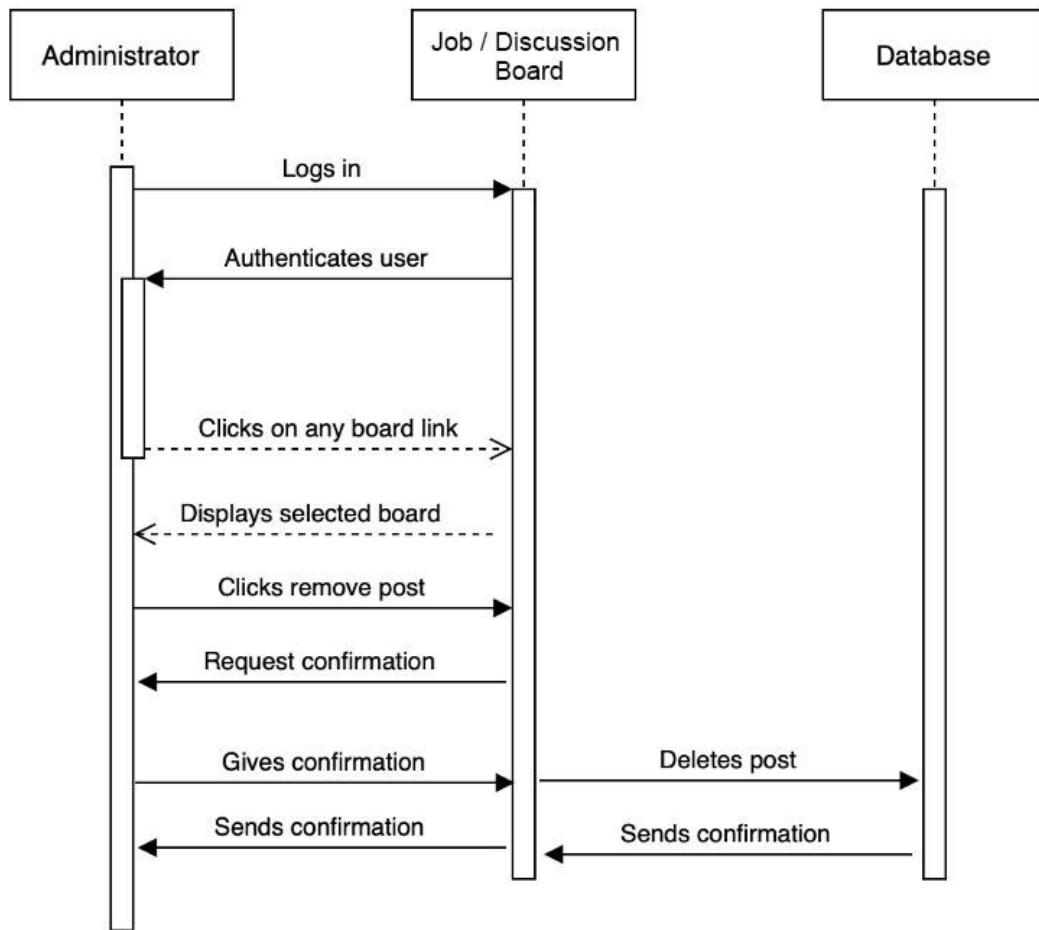
<u>Step</u>	<u>Step Description</u>
Administrator signs in	Administrator must sign in to their account with preexisting administrative privileges
Administrator views board	Administrator clicks on link to view a type of board (job, event, or mentor)
Administrator views posts	The page loads and the administrator can view all posts
Administrator clicks on 'Manage Post'	Administrator would hover over an individual post that they wanted to remove, and click on the 'Manage Post' button
Administrator clicks 'Remove' button	After clicking 'Manage Post', administrator can then click 'Remove' button to hide post from all other users
Administrator confirms their change	When an administrator removes a post, they receive a dialog asking them to confirm their changes. When they click confirm, the change is implemented.
Administrator views their changes	Now when viewing the board, the post the administrator removed should be greyed out or have some indication that it is now removed from normal users view.

3. Pre-conditions

3.1 A user with administrative privileges should be logged in to the website.

4. Post-conditions

4.1 Unacceptable post is removed from event, job, or mentor board.



Use Case Specification: Donation

1. Donation

1.1 Brief Description

A user of any type should be able to donate to the university and their payment details should be kept private and secure.

2. Flow of Events

2.1 Main Flow

<u>Step</u>	<u>Step Description</u>
User clicks donate button	User clicks donate button to navigate to payment page.
User is directed to enter their payment information	User is prompted for all necessary payment information, such as PayPal account information or credit card data. Form validation ensure that all necessary information is entered
User's payment information is sent to payment management system	User's payment information is sent to payment management system, such as PayPal, for processing.
Money is transferred via payment management system	User receives a confirmation message letting them know the transfer was successful and notification is sent to the donation recipient to inform them they received a donation

2.2 Alternative Flows

2.2.1 User inputs incorrect or invalid payment information

<u>Step</u>	<u>Step Description</u>
User clicks donate button	User clicks donate button to navigate to payment page.
User is directed to enter their payment information	User is prompted for all necessary payment information, such as PayPal account information or credit card data. Form validation ensure that all necessary information is entered

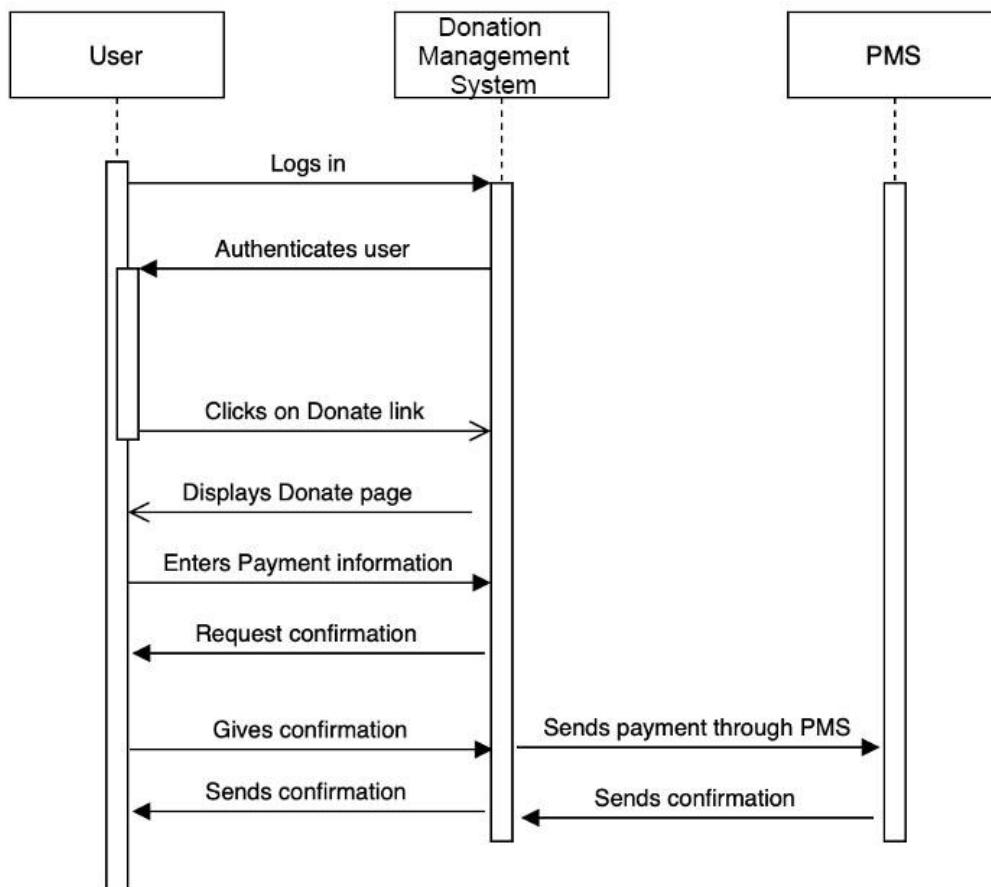
User's payment information is sent to payment management system	User's payment information is sent to payment management system, such as PayPal, for processing.
Error is returned	If invalid information was entered, PayPal returns an error and the payment is not processed.

3. Pre-conditions

3.1 A user is logged in to the website

4. Post-conditions

4.1 User receives email confirmation their donation has been sent.



Use Case Specification: Push Notifications by Administrators

1. Push notifications by administrators

1.1 Brief Description

Administrator should be able to send out massive notifications through a message board to all site users about upcoming events or other important information.

2. Flow of Events

2.1 Main Flow

<u>Step</u>	<u>Step Description</u>
Administrator signs in	Administrator must sign in to their account with preexisting administrative privileges
Administrator click 'Send notification' button	N/A
Administrator is taken to page to create the notification	Administrator is able to enter the text they would like to be sent to all users
Administrator is able to determine when notification is sent	Administrator chooses day and time for notification to be sent before confirming their message
Administrator is able to view preview of notification	A preview page show the administrator what the notification will look like to users and allows the administrator to either cancel or confirm the sending of the notification
Confirmation message is received by the administrator	Once the notification is sent, the administrator receives a confirmation message that their notification was successful.

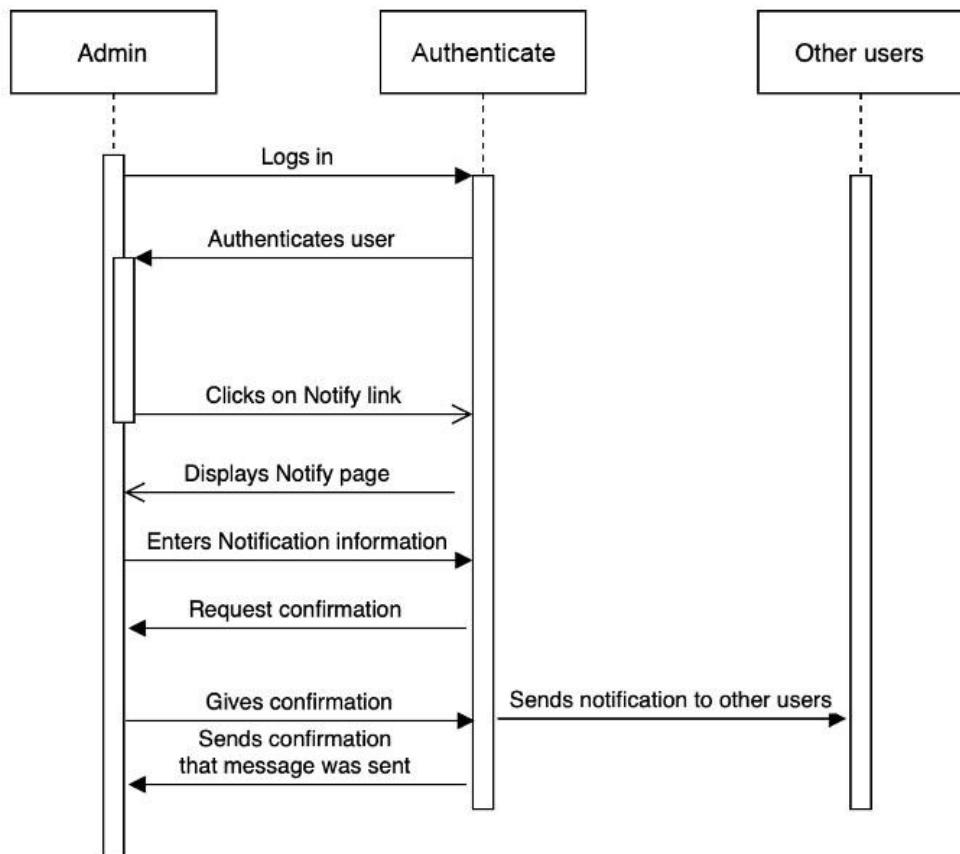
2.2 Alternative Flows

2.2.1 Push notification is not able to be sent due to network connectivity issues

<u>Step</u>	<u>Step Description</u>

Administrator signs in	Administrator must sign in to their account with preexisting administrative privileges
Administrator click 'Send notification' button	N/A
Administrator is taken to page to create the notification	Administrator is able to enter the text they would like to be sent to all users
Administrator is able to determine when notification is sent	Administrator chooses day and time for notification to be sent before confirming their message
Administrator is able to view preview of notification	A preview page shows the administrator what the notification will look like to users and allows the administrator to either cancel or confirm the sending of the notification
Failure message is received	If there was some issue and the notification is unable to be sent, administrator is sent an error message and asked to contact development team to see what went wrong

3. Pre-conditions
 3.1 **A user with administrative privileges should be logged in to the website.**
4. Post-conditions
 4.1 *User receives email confirmation their donation has been sent.*



Use Case Specification: Communicate with administration (partners)

1. Communicate with administration (partners)

1.1 Brief Description

Partners should be able to reach out to administrators with questions or concerns, and these messages should be visible to administrators.

2. Flow of Events

2.1 Main Flow

<u>Step</u>	<u>Step Description</u>
Partner clicks on 'Contact administration' button	Partner must be signed in and click on 'Contact administration' button
Partner creates message	Partner is taken to page to establish the content of their message and the priority level
Partner sends message	Partner reviews their created message and then can choose to cancel or send the message
Confirmation message is received	When the message is successfully sent, the partner receives a confirmation message with details of their communication

2.2 Alternative Flows

2.2.1 Message is unable to be sent

<u>Step</u>	<u>Step Description</u>
Partner clicks on 'Contact administration' button	Partner must be signed in and click on 'Contact administration' button
Partner creates message	Partner is taken to page to establish the content of their message and the priority level

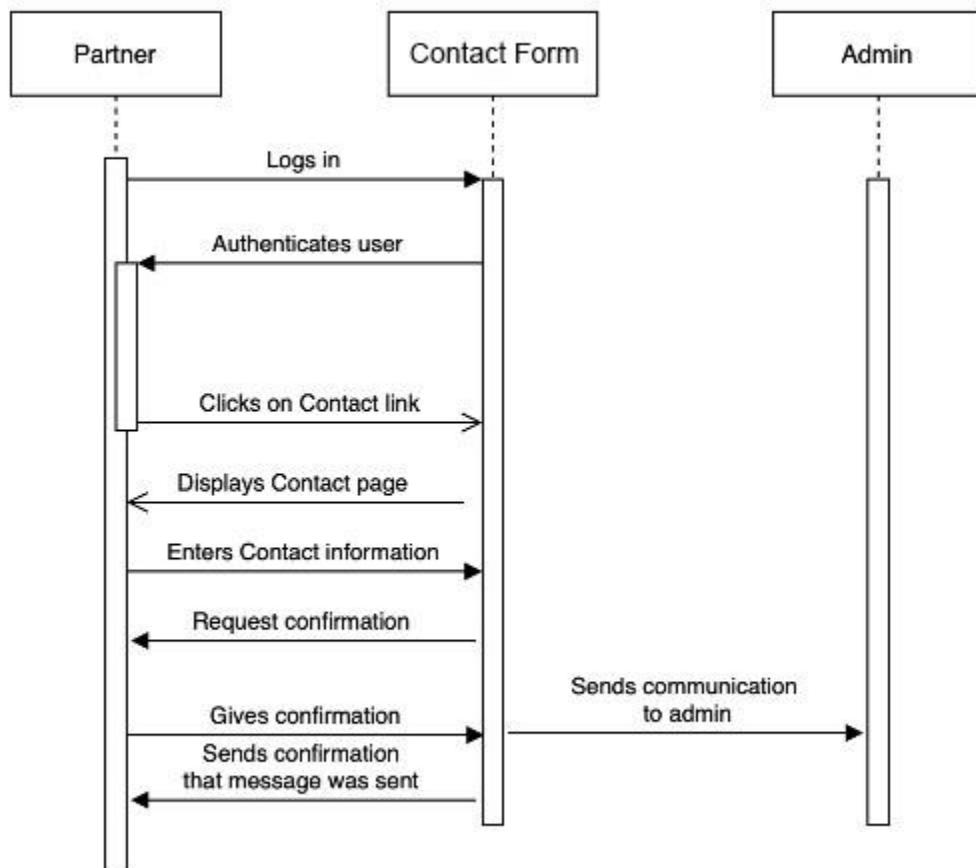
Partner sends message	Partner reviews their created message and then can choose to cancel or send the message
Error message is received	The system attempts to send message and fails. It then returns a user-friendly error message to the partner and asks them to either fix the error or try again later.

3. Pre-conditions

3.1 **A user with partner account should be logged in to the website.**

4. Post-conditions

4.1 **Administrator receives message**



Use Case Specification: Edit Photo Carousel

1. Edit photo carousel

1.1 Brief Description

Administrators should be able to edit the contents of the photo carousel by either adding or removing images. This carousel should be visible to all users

2. Flow of Events

2.1 Main Flow

<u>Step</u>	<u>Step Description</u>
Administrator clicks 'Edit carousel' button	Administrator must sign in to their account with preexisting administrative privileges. They can then click the 'Edit carousel' button
Administrator can view all current images and remove them or add images	Administrator is taken to a page that has all current carousel images. Each image has a delete option, and there is an input field for the administrator to add images
Administrator makes changes	Administrator deletes old images and uploads new ones
Confirmation message is given and changes are saved	Changes are saved and confirmation message is given to administrator. Changes are immediately visible on the home page.

2.2 Alternative Flows

2.2.1 *Changes are unable to be saved*

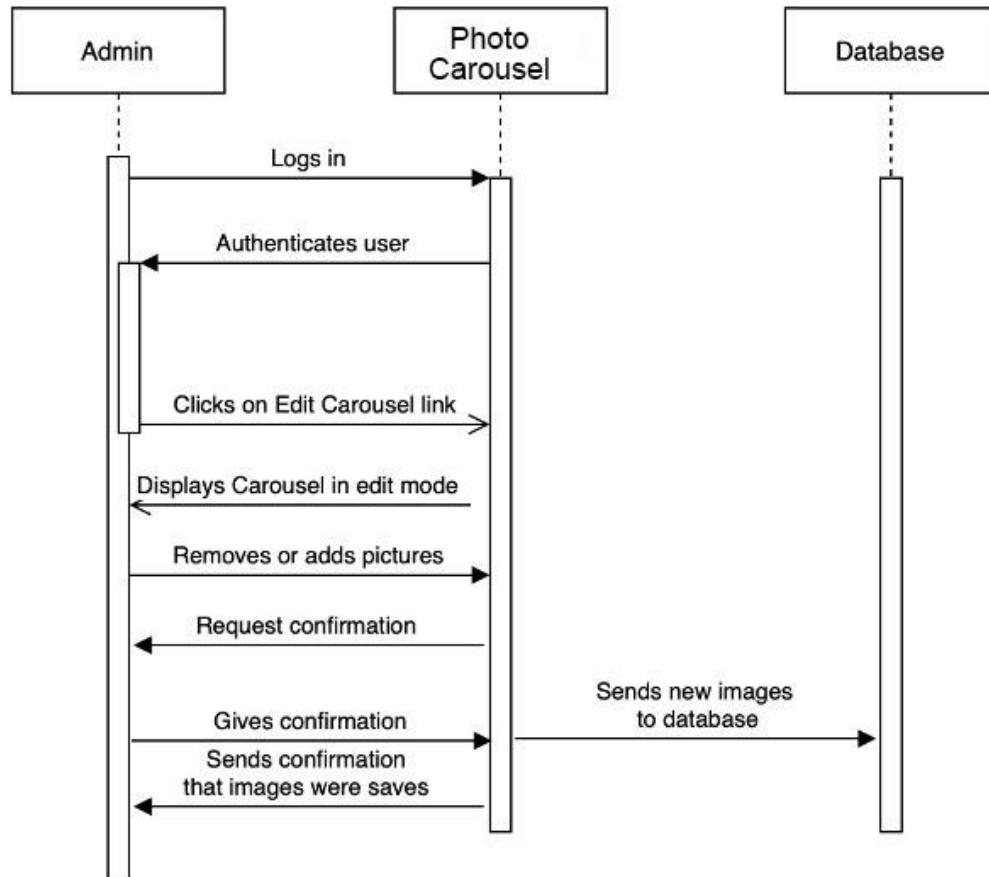
<u>Step</u>	<u>Step Description</u>
Administrator confirms changes	Partner reviews their created message and then can choose to cancel or send the message
Error message is received	The system attempts to save the changes and fails. It then returns a user-friendly error message to the administrator and asks them to either fix the error or try again later.

3. Pre-conditions

3.1 Administrator is viewing carousel in edit mode

4. Post-conditions

4.1 New images are added to carousel and/or old images are removed



1.1 Frequently Asked Questions for Mentors Brief Description

Mentors should be able to navigate to the section of the website that has all the frequently asked questions mentors might have. This will not only streamline answers to the questions mentors are asking the most but also reduce how much time administrators will have to spend on helping/answering mentor questions.

2. Flow of Events

2.1 Basic Flow

- The mentor has a question regarding the site.
- The mentor clicks on the help button located on the homepage.
- The system loads the Frequently Asked Questions page.
- The Mentor clicks on the FAQ section associated with mentors.
- The system loads the Mentor specific FAQ page.
- The Mentor then navigates the page for the question they were searching for.
- Once found the Mentor clicks on the question they needed.
- The System then loads the question page with all relevant answers and information.
- If the Mentor cannot find the question they will click the Contact Admin button located at on the FAQ page.
- The system will load a messaging box for the Mentor to seek further help via administration.

3. Special Requirements

3.1 NA

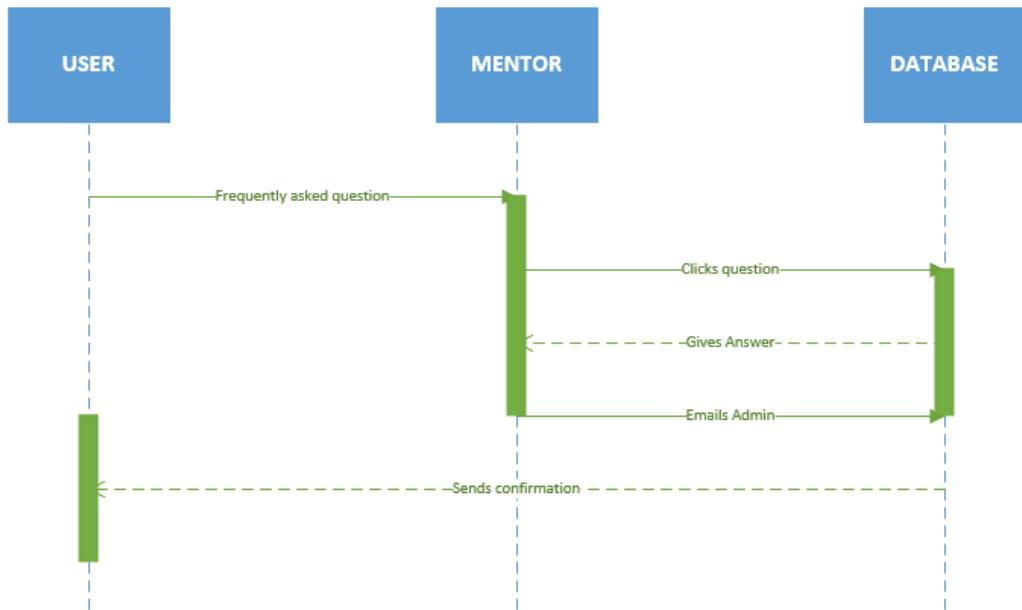
4. Pre-conditions

4.1 FAQ page must be constructed.

4.2 Mentor must be on FAQ page.

5. Post-conditions

5.1 Question will be answered.



Use Case Specification: Sign up as a partner

5.2 Sign up as a partner brief description

Businesses, organizations, or other groups that are not students/mentors should be able to create an account as a partner on the website.

6. Flow of Events

6.1 Basic Flow

- User navigates to the home page
- User clicks “Create a Partner Account Button”
- The system loads the partner sign up page
- The partner then enters their own personal relevant information that includes but is not limited to
 - Full Name
 - D.O.B.
 - Email address
 - Home address
 - Occupation
- Once all information is complete the partner will press next
- The system will load the password/confirm password page
- The partner will choose a unique password and enter it twice
- The system will display that the account has been successfully created

7. Special Requirements

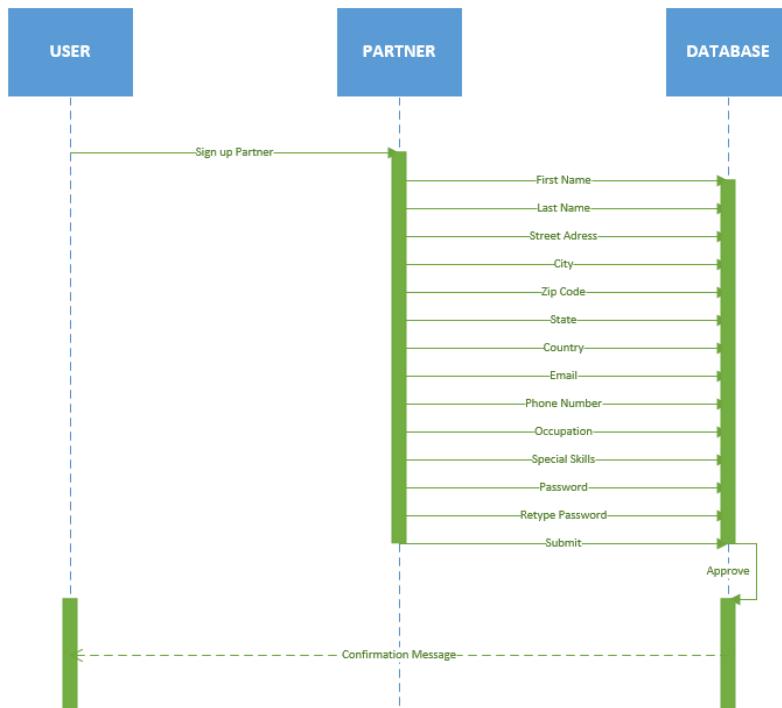
7.1 **NA**

8. **Pre-conditions**

4.1 **Partner must be on the create an account page.**

9. **Post-conditions**

9.1 **Partner account will be created.**



Use Case Specification: Posting guidelines for partners

9.2 Posting guidelines for partners brief description

Partners will be prompted to read and accept the company guidelines regarding posts made on the website. Agreeing to the guidelines will mean that administrators have the right to revoke account privileges or terminate accounts completely if guidelines are repeatedly broken.

10. Flow of Events

10.1 Basic Flow

- Partner navigates to the homepage
- Partner clicks the log in button
- The system recognizes this is the first time the account has been logged in to
- The system loads the guidelines for posting as a partner
- The partner must scroll to the bottom while reading
- The partner clicks accept to the guidelines
- The system loads the homepage

11. Special Requirements

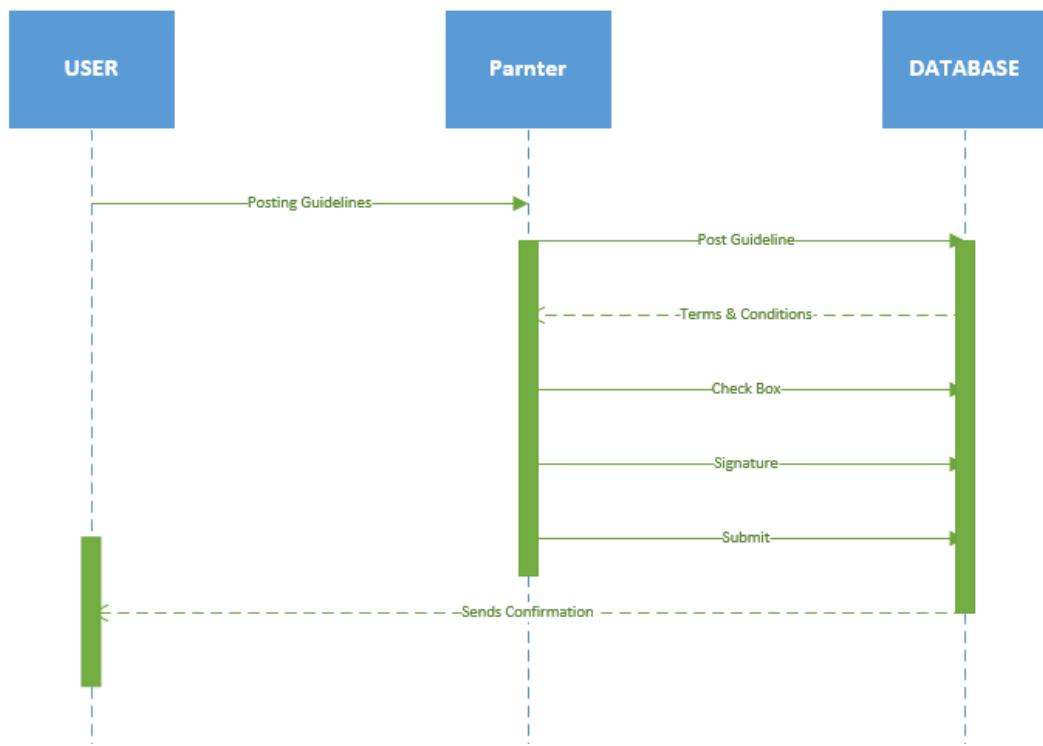
11.1 NA

12. Pre-conditions

4.1 Partner must have created an account

13. Post-conditions

13.1 Partner will now be able to submit posts



Use Case Specification: Post to event and job boards for partners

13.2 Sign up as a partner brief description

Partners should be able to make posts regarding their own specific community events and job boards. They will be able to add all necessary information which will then be screened by administration and then approved to be listed on the website.

14. Flow of Events

14.1 Basic Flow

- Partner navigates to the homepage
- Partner clicks the log in button
- The system will load the partners profile page
- The partner will click on the event/job board button
- The system will load the create a post page
- The partner will choose either event or job board to post
- The partner will enter their information regarding the event/job board
- The partner will click the post to website button
- The system will display a message saying the post will be reviewed by administration
- The system accepts the post
- An Administrator will review the post
- An administrator will confirm the post
- The post will be displayed on the website

15. Special Requirements

15.1 NA

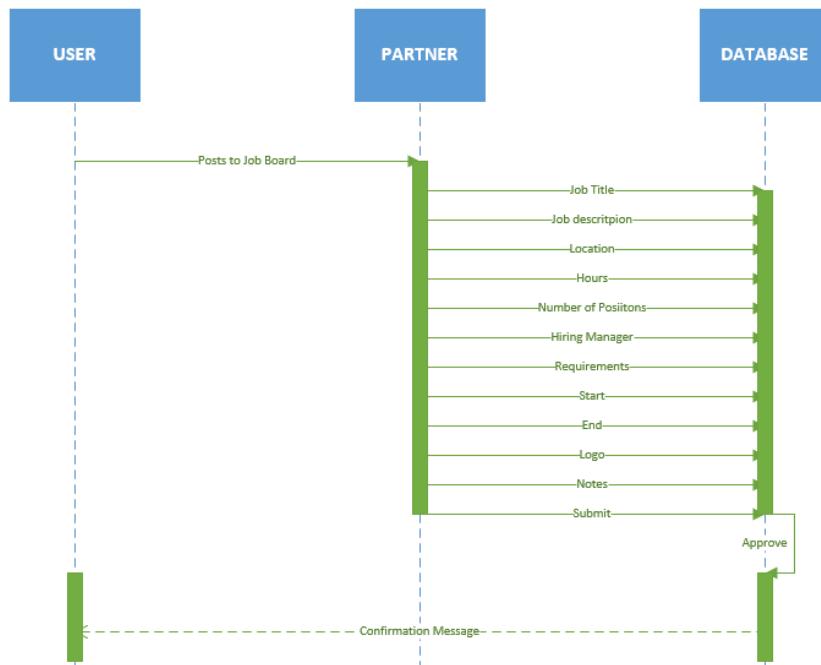
16. Pre-conditions

16.1 Partner must be logged in

4.2 Partner must be on the event/job board page

17. Post-conditions

17.1 Partner will have created an event/job board post



Use Case Specification: Partner Profile Creation

17.2 Sign up as a partner brief description

Partners should be able to completely customize their profile to reflect their interests, career, community, etc.

18. Flow of Events

18.1 Basic Flow

- Partner will navigate to the home page
- Partner will log in
- The system will load the home page
- The partner will click the “my profile” button
- The system will load the blank profile
- The partner will click the “edit profile” button
- The system will load a blank profile page that will have options to insert the following but not limited to
 - Profile picture
 - Email address
 - Summary of their hobbies and interests
 - Current place of employment
 - Position at place of employment
 - Work place responsibilities
 - Previous employment
 - list of certificates

- The partner will hit the “save changes” button.
- The system will save the changes
- The system will load the profile page with the new changes

19. Special Requirements

19.1 NA

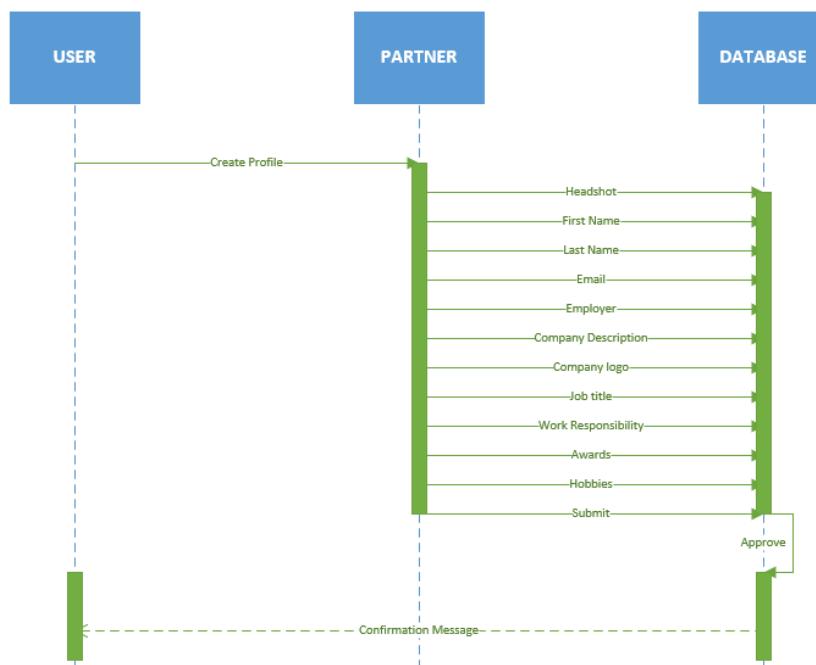
20. Pre-conditions

20.1 Partner must be logged in

4.2 Partner must be on their profile page

21. Post-conditions

21.1 Partner will have created their profile



Use Case Specification: Build User Profile

1. Build User Profile

1.1 Brief Description

Once an account has been created, a mentee should be able to create their own profile to showcase their academic interests and experience and customize their user experience.

2. Flow of Events

2.1 Basic Flow

- User clicks 'Edit Profile' button
- User clicks 'Edit Photo' button
- User chooses an image file to upload as their profile picture
- User clicks 'Save' button to confirm choice.
 - Alternative Flow: User clicks 'Cancel' button to revert any changes made
- User clicks 'Edit Personal Statement'
- User adds, modifies, or deletes a personal statement.
- User clicks 'Save' button
 - Alternative Flow: User clicks 'Cancel' button to revert any changes made
- User clicks 'Edit Interests' button
- User adds, modifies, or deletes interests (Users can choose options from a list or could just type their interests)
- User clicks 'Save' button
 - Alternative Flow: User clicks 'Cancel' button to revert any changes made
- User clicks 'Edit Experience'
- User adds, modifies, or deletes Experience
- User clicks 'Save' button
 - Alternative Flow: User clicks 'Cancel' button to revert any changes made

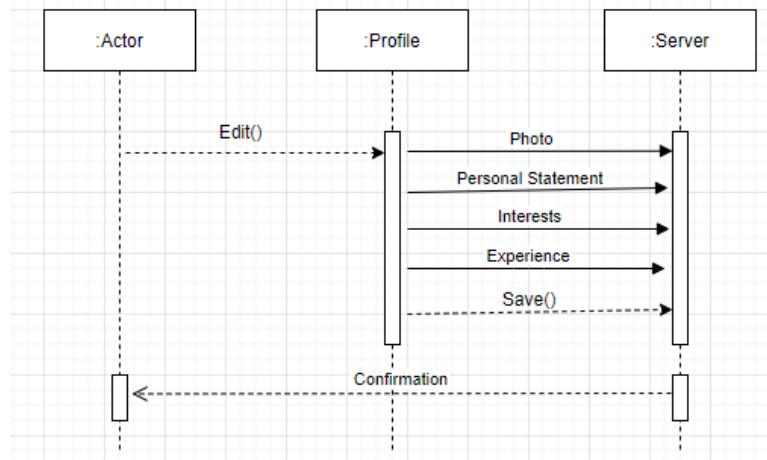
- User clicks ‘Edit Skills’
- User adds, modifies, or deletes skills (Users can choose options from a list or could just type their skills)
- User clicks ‘Save’ button
 - Alternative Flow: User clicks ‘Cancel’ button to revert any changes made
- User clicks ‘Submit’ button to complete their profile.

3. Pre-conditions

- 3.1 User is logged in
- 3.2 User is on their Profile Page (“My Profile” button was clicked)

4. Post-conditions

- 4.1 User Profile has been built.



Use Case Specification: View Job Board

1. View Job Board

1.1 Brief Description

Mentees should be able to view jobs posted on job boards from mentors or other posters.

2. Flow of Events

2.1 Basic Flow

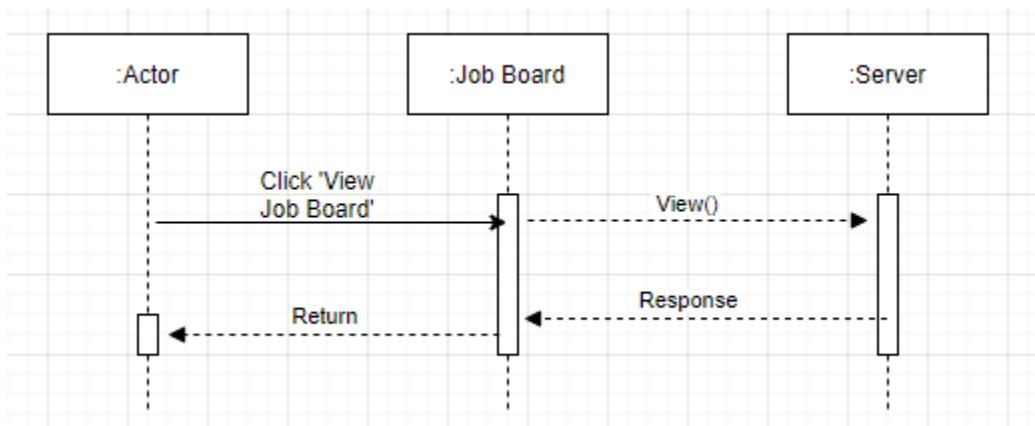
- User clicks “View Job Board”
- User views list of job previews for available opportunities.
- User clicks on specific job opportunity and is redirected to page for that job.
 - Alternate Flow: User clicks “Back” button to return to list of jobs.

3. Pre-conditions

- 3.1 User is logged in

4. Post-conditions

- 4.1 User has viewed the Job Board.



Use Case Specification: Post to Discussion Board

1. Post to Discussion Board

1.1 Brief Description

Mentors and mentees should be able to communicate with one another through discussion boards. A user should be able to create posts and view other people's posts.

2. Flow of Events

2.1 Basic Flow

- User clicks “Discussion Boards” button
- User clicks on which thread/ discussion board to open from a list of active ones that are accessible depending on the user (Mentee/Mentor/Admin)
- User clicks “New” button to make a post to the discussion board.
- User types a new post to a discussion board.
- User clicks “Submit” button.
- User clicks on another user’s post.
- User clicks “Reply” button.
- User types a reply to another user.
- User clicks “Submit” button.

2.2 Alternative Flows

2.2.1 Create New Discussion Board

- User clicks “Discussion Boards” button.
- User clicks “Create New Board” button to make a new thread
- User clicks the Title section.
- User types a Title for the new discussion board.

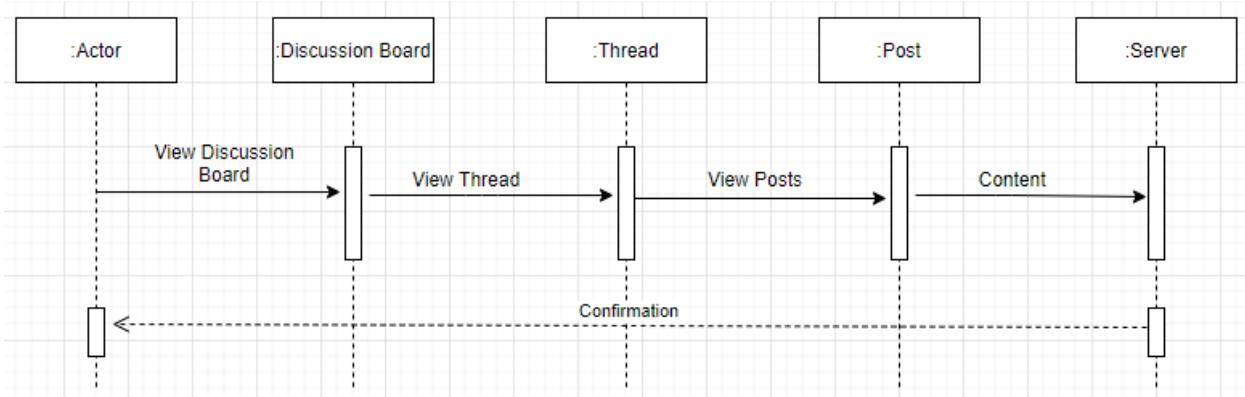
- User clicks the Description section.
- User types out a description to be viewed by users.
- User clicks “Create” button.

3. Pre-conditions

3.1 User is logged in

4. Post-conditions

4.1 User has posted to Discussion Boards or created a new discussion board.



Use Case Specification: Communicate with Administrators

1. Communicate with Administrators

1.1 Brief Description

Mentors or mentees should be able to reach out to administrators with questions or concerns, and these messages should be visible to administrators.

2. Flow of Events

2.1 Basic Flow

- User clicks “Contact Administrator” button.
- User is redirected to a form page.
- User selects type of request from Questions, Report User, Concerns, etc.
- User selects if they wish to remain anonymous.
- User types a message on the form to be sent and viewed by an administrator.
- User clicks “Submit” button.

2.2 Alternative Flows

2.2.1 Administrator Discussion Board

- User clicks “Discussion Boards” button.
- User navigates to “General Help” (or other similarly named) discussion board.
- User makes new post to board if their concern is not already listed on the forum.

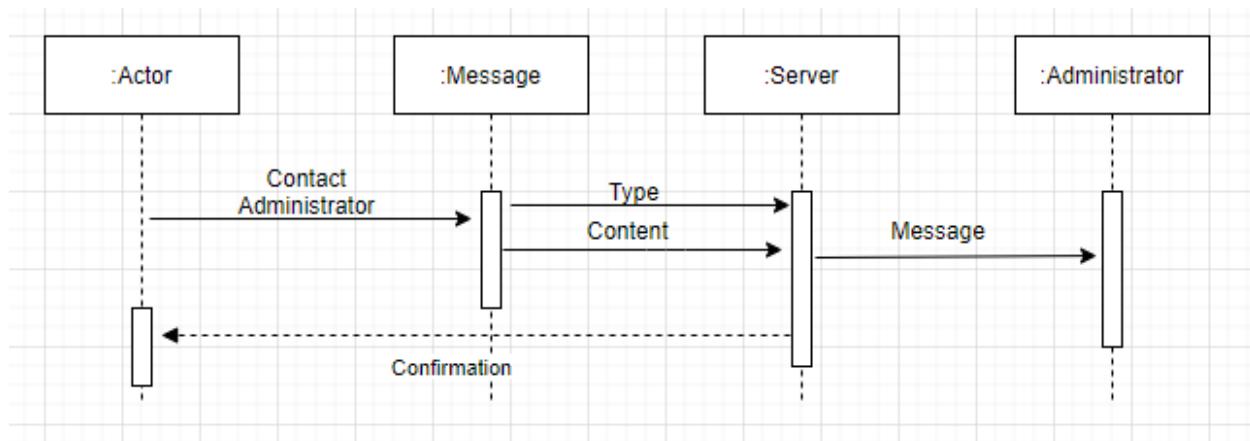
Administrators will have the ability to create posts, monitor, and reply to users on this forum in addition to having users be able to submit a form.

3. Pre-conditions

- 3.1 User is logged in.

4. Post-conditions

- 4.1 User has contacted an Administrator with a question or concern.



Use Case Specification: Post Opportunities

1. Post Opportunities

1.1 Brief Description

Mentors should be able to post opportunities for mentees. These opportunities should be visible for mentees across the site.

2. Flow of Events

2.1 Basic Flow

- User clicks on “Job Board” button.
- User navigates to and clicks “Submit Job Opportunity” button.
- User is redirected to a form to fill out information on the job opportunity.
- User clicks the Role section.
- User types what the role of the opportunity is.
- User clicks Description.
- User types a description of the opportunity, including the tasks and responsibilities as well as the pay.
- User clicks the Contact section.
- User types the contact info for the role.
- After the form is complete, the user submits the request to be reviewed by an administrator, who will approve or reject the opportunity.
 - If approved, the Job will be listed on the Job Board. If rejected, the user will be notified with reasoning as to why their request was denied.

2.2 Alternative Flows

2.2.1 Post Opportunities to Discussion Board

- User clicks “Discussion Boards” button.

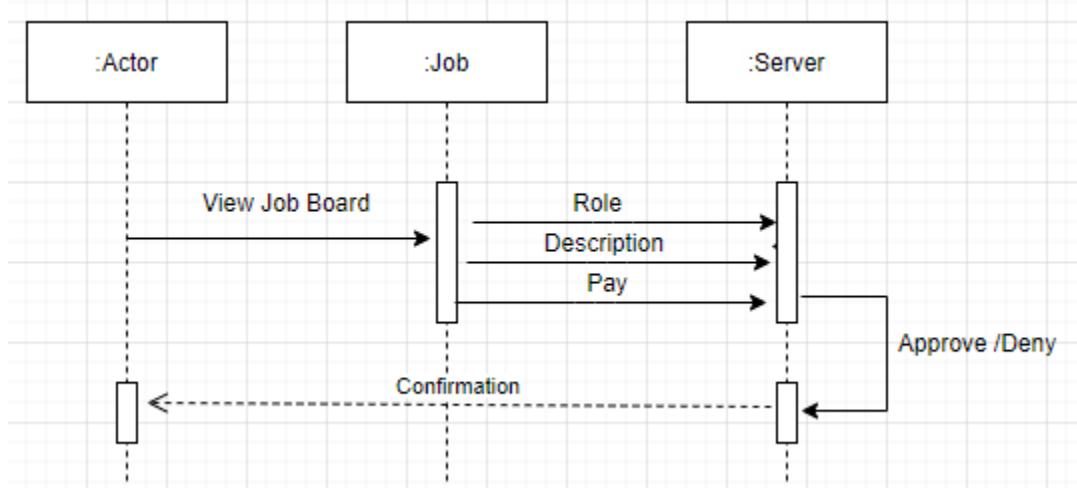
- User navigates to “Opportunities” (or other similarly named) discussion board.
 - This board will be monitored by admins as well and should only be used for general opportunities such as conferences, guest speaker events, job fairs, and other similar events or opportunities as opposed to specific positions.
- User makes new post to board if their opportunity is not already listed on the forum.

3. Pre-conditions

3.1 User is logged in

4. Post-conditions

4.1 Opportunity has been posted.



Use Case Specification: View Guidelines for Mentors

1. Post Guidelines for Mentors

1.1 Brief Description

Mentors should have guidelines regarding their posts so that they understand what types of posts are allowed on the site and what the policies and expectations are for the role of mentors regarding student interaction. These guidelines are created, managed, and enforced by administrators and details the roles and responsibilities of mentors.

2. Flow of Events

2.1 Basic Flow

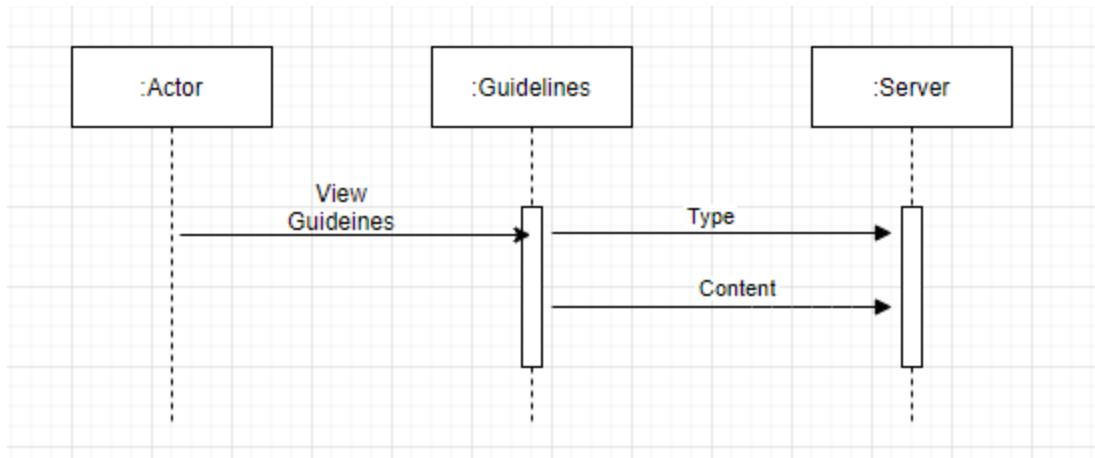
- User clicks “Guidelines” button
- User selects “Mentor” option.
- User views the Mentor Guidelines page.

3. Pre-conditions

3.1 User is logged in

4. Post-conditions

4.1 User has viewed the Mentor guidelines and understands their role and responsibilities as well as the administrators' expectations.



Use Case Specification: Add User

1. Add User

1.1 Brief Description

Administrators should be able to manually add user accounts

2. Flow of Events

2.1 Basic Flow

- Actor selects create a user button
- Administrator Selects the type of user they would like to create
- Administrator fills in the fields pertaining to the type of user, see sign up user and sign up mentee cases

2.2 Alternative Flows

- N/A

3. Special Requirements

N/A

4. Pre-conditions

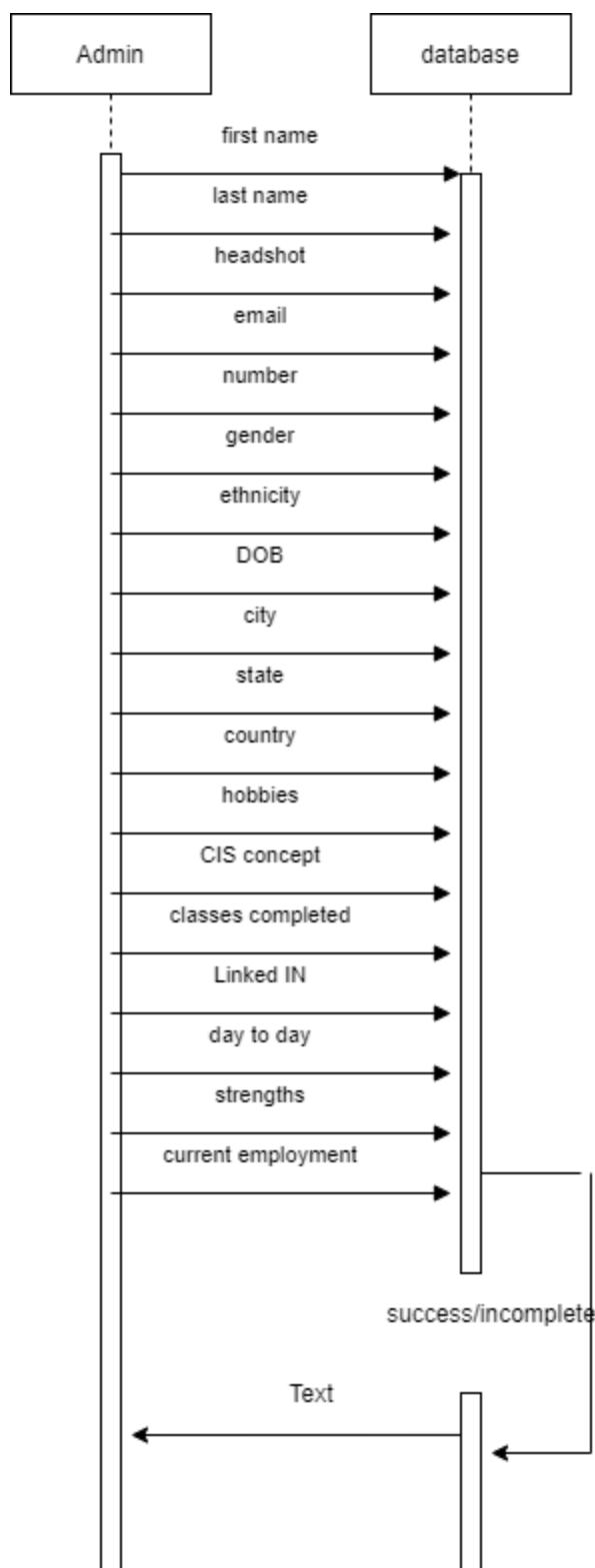
- 4.1** Actor selects to create new account.

5. Post-conditions

- 5.1** Account is created.

6. Extension Points

N/A



Use Case Specification: Contact Admin

1. Contact Admin Via Messaging

1.1 Brief Description

Users should be able to enter a message consisting of text to the system administrator. Upon delivery Administrators will be able to respond to the messenger

2. Flow of Events

2.1 Basic Flow

- Actor selects the “Message to Admin” button
- The messenger prompt will be brought up
- The actor will fill in a subject line field and a body field consisting of their message
- Actors can click the save draft button to return to finish later
- Actors can click the clear all button to clear all fields
- Actors can click the send button to send their message to the admin

2.2 Alternative Flows

- Admin can respond to the message

3. Special Requirements

N/A

4. Pre-conditions

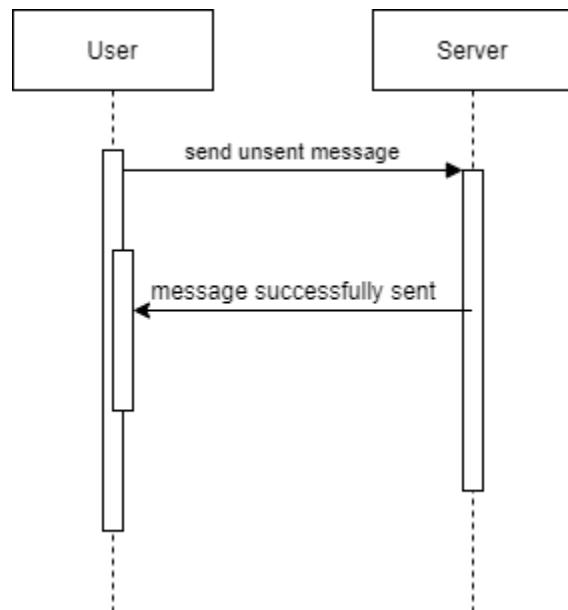
4.1 Actor selects the “Send Message to Admin Button

5. Post-conditions

5.1 Actors has submitted a message

6. Extension Points

N/A



Use Case Specification: Login as Mentee

1. Login as Mentee

1.1 Brief Description

Student should be able to log in to the website with the information they linked to their account when signing up

2. Flow of Events

2.1 Basic Flow

- Actor selects the “Login Student” button
- Actor Fills in user/email field
- User fills in password field
- Actor Selects Log In button to submit
-

2.2 Alternative Flows

- Admin can respond to the message

3. Special Requirements

N/A

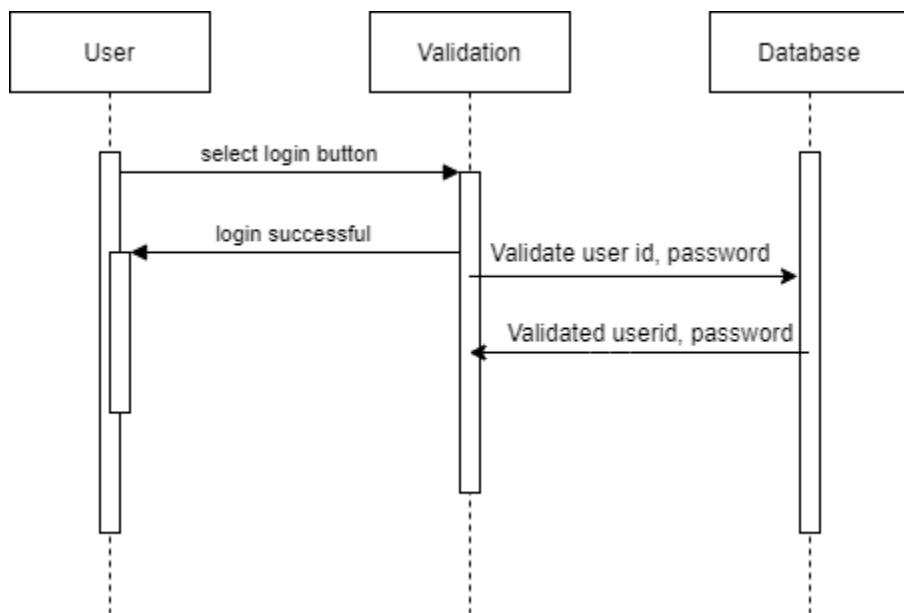
4. Pre-conditions

4.1 Actor selects the log in student button

5. Post-conditions

5.1 Actors are logged in or prompted to try again

6. Extension Points



Use Case Specification: Login as Mentor

1. Login as Mentor

1.1 Brief Description

Mentors should be able to use the accounts they created to log in to the website

2. Flow of Events

2.1 Basic Flow

- Actor selects the “Login Mentor” button
- Actor Fills in user/email field
- User fills in password field
- Actor Selects Log In button to submit

2.2 Alternative Flows

N/A

3. Special Requirements

N/A

4. Pre-conditions

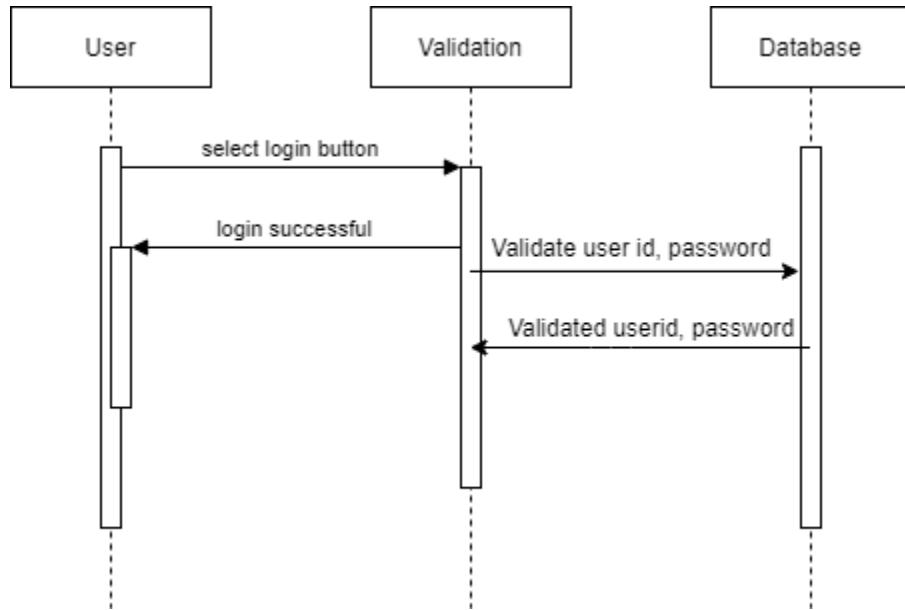
4.1 Actor selects the log in mentor button

5. Post-conditions

- 5.1 Actors are logged in or prompted to try again

6. Extension Points

N/A



Use Case Specification: Sign Up User Verification

1. Sign Up with User Verification

1.1 Brief Description

A user who creates an account should be required to verify their identity with some sort of verification, such as Google reCaptcha, to protect the website from spam or bot accounts

2. Flow of Events

2.1 Basic Flow

- Actor selects the “Verification” button during sign up
- Actor selects the response to the reCAPTCHA prompt
- Actor is either verified or asked to try again

2.2 Alternative Flows

- N/A

3. Special Requirements

N/A

4. Pre-conditions

- 4.1 Actor selects the verification button during sign up

5. Post-conditions

- 5.1 Actors will be verified or asked to try again

6. Extension Points

N/A

Use Case Specification: Remove Users

1.1 Brief Description

An administrator will have the access to remove users

2. Flow Of Events

- **Administrator logs in**
- **Administrator clicks on the users name**
- **Administrator gets a pop-up confirming action**
- **Administrator clicks on “Confirm”**
- **Administrator gets a pop-up showing the user has been removed**

2.2 Alternative Flows

2.2.1 An administrator does not press confirm but rather no

- **Administrator logs in**
- **Administrator clicks on the users name**
- **Administrator gets a pop-up confirming action**
- **Administrator clicks on “Do not confirm”**
- **Administrator gets a message saying “User was not removed”**

3. Pre-conditions

3.1 Administrators with the correct administrative privileges will need to be logged into the website.

4. Post-conditions

4.1 User which the administrator removes from the website, is removed.

Use Case Specification: Search Job Posting

1. Search Job Posting

1.1 Brief Description

A mentee goes to view the current job postings

2. Flow of events

2.1 Basic Flow

- Mentee Signs in
- Mentee clicks on view job postings
- Mentee clicks on a specific job posting

2.2 Alternative Flow

2.2.1 Mentee can not access job postings

- Mentee sings in
- Mentee clicks on view job postings
- Mentee gets an error

3. Pre-conditions

3.1 Mentee with the preexisting account and permission will need to login

4. Post-conditions

4.1 Mentee will be able to view the job postings the administrators have approved of

Use Case Specification: Back Up Data

1. Back Up Data

1.1 Brief Description

An administrator will have the ability to back up data

2. Flow of events

2.1 Basic Flow

- Administrator Logins
- Administrator clicks on link to back up
- Administrator will be asked to put in login information again for extra security
- Administrator gets notification asking to confirm
- Administrator confirms action
- Back up of data begins, as pop up showing it appears
- Pop up showing action is completed appears

2.2 Alternative Flow

2.2.1 Error shows up data was not backed up

- Administrator Logins
- Administrator clicks on link to back up data
- Administrator will be asked to put in login information again for extra security
- Administrator gets notification asking to confirm
- Back up of data begins, as pop up showing it appears
- Pop up showing action was not completed
- Notification saying to try again later is shown

3. Pre-Conditions

3.1 Administrator with preexisting account and privileges to back up data

4. Post-conditions

4.2 Administrator will have backed up the data to the cloud

Use Case Specification: Recover Data

1. Recover Data

1.1 Brief Description

An administrator will have the ability to recover data

2. Flow of events

2.1 Basic Flow

- Administrator Logins
- Administrator clicks on link to Recover data
- Administrator will be asked to put in login in information again for extra security
- Administrator gets notification asking to confirm
- Administrator confirms action
- Recovery of data begins, as pop up showing it appears
- Pop up showing action is completed appears

2.2 Alternative Flow

2.2.1 Administrator receives an error

- Administrator Logins
- Administrator clicks on link to recover data
- Administrator will be asked to put in login in information again for extra security
- Administrator gets notification asking to confirm
- Administrator confirms action
- Recovery begins, as pop up showing it appears
- Pop up showing action was not completed
- Notification saying to try again later is shown

3. Pre-Conditions

3.1 Administrator with preexisting account and privileges to back up data

4. Post-conditions

4.2 Administrators will have recovered data from the cloud

Use Case Specification: Post Jobs On Job Board

1. Post to job board for partners

1.1 Brief Description

A partner will post to job board

2. Flow of events

2.1 Basic Flow

Partner Logins in

Partner will click on the link for job postings

Partner will click on the button for “create job posting”

Partner will fill out information according to what is required

Parnter will need to click “Post job”

Partner will get a notification showing that the job has been posted

2.2 Alternative Flow

2.2.1 Partner can not post job postings

- **Partner Logins in**
- **Partner will click on the link for job postings**
- **Partner will click on the button for “create job posting”**
- **Partner will get an error**

3. Pre-conditions

3.1 Partner with preexisting account and access to post jobs

4. Post-conditions

4.1 Partner will be able to post jobs which mentees can view and apply for

Class Diagram

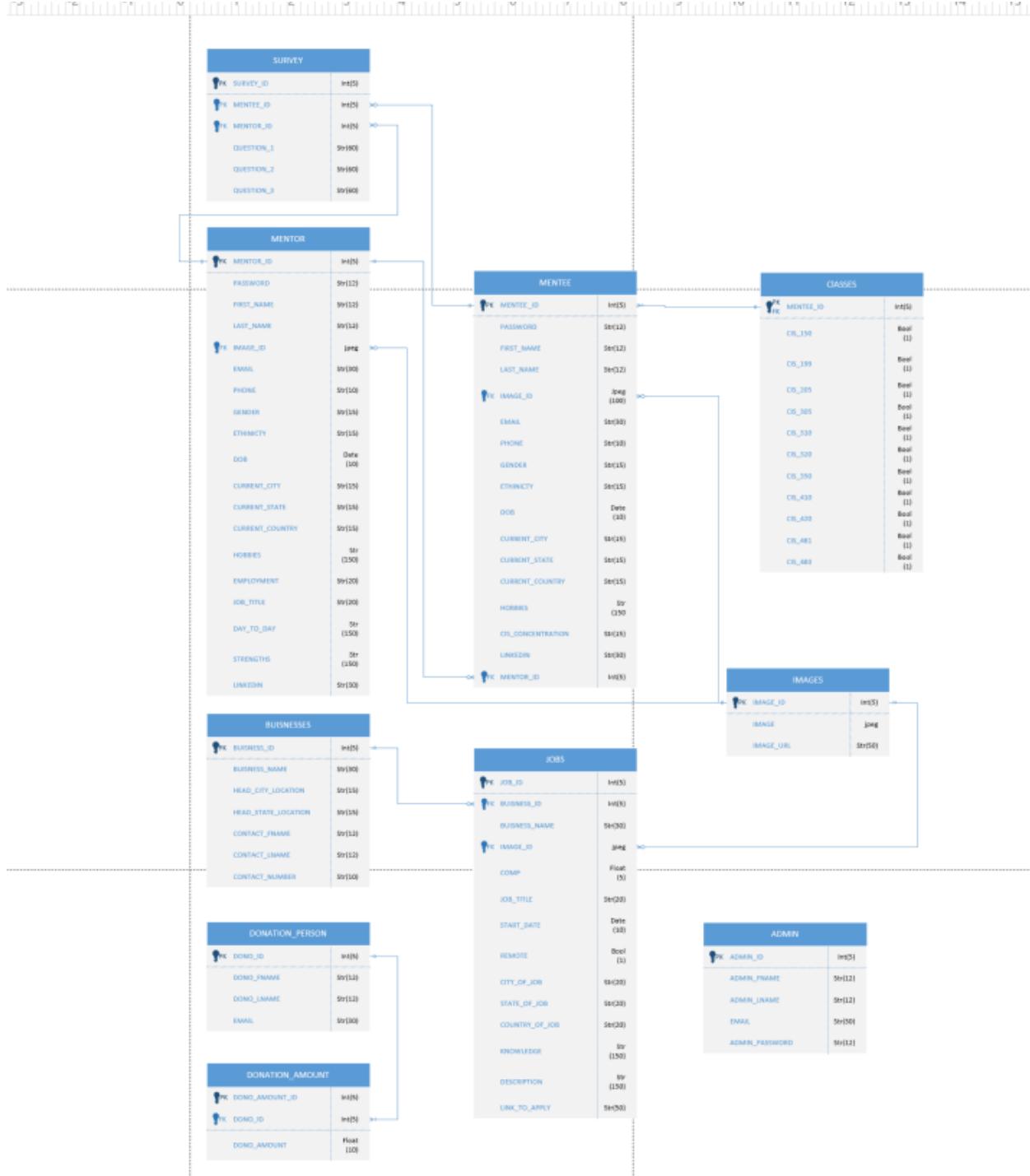
Class Diagram:

Narrative: This diagram depicts the basic structure of the underlying classes for the Mentor/Mentee system. It was derived using verb-noun analysis, so the team examined the use cases we had already created and identified a) the people/things involved in the system and b) how these people/things interacted with one another. One of the most important classes in this diagram is the user class, which is designed to contain genetic information that is required for any user no matter their type. From this class, four other classes are created that describe the types of users: mentor, mentee, partner, and administrator. Some of these types of users may have unique information associated with them that the other types do not require, and some are there simply to allow for design clarity. Each user has a unique ID that can be linked to their profile and used to assign them different permissions. There are also classes created for the main forms that a user might encounter on this website. These classes are designed to define the data captured in a form response. In addition, there is also a Donation Management class that is linked to both a Donor and Credit Card class. These classes aren't linked with the user class because we don't wish to limit the donations the CIS program can receive based on if a potential donor is signed into the site and approved by an administrator. The Credit Card class exists for the purpose of providing a model for the payment information that a donor must enter. This data **is not stored** in our system, but is sent to an external payment management system that is better equipped to deal securely with financial information.



Database Design and Definitions

Our entity relationship diagram took the majority of its attributes(data being collected) off of the class diagram, but were able to combine and shorten some of them. To achieve 3NF we removed transitive dependencies and modeled our data in the most simplistic flow.



Data Storage Tables

This includes all of the data needs within our system displayed in a 3NF form which is all dependency and transitive relations are removed. This keeps the integrity intact and makes sure all values and keys are synchronized.

Mentor Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
MENTOR_ID	Identification for mentors	5	Int	Primary
PASSWORD	Password for system	12	Str	
FIRST_NAME	First name	12	Str	
LAST_NAME	Last name	12	Str	
IMAGE_ID	headshot	Jpeg	Jpeg	Foreign
EMAIL	Uofl email	30	Str	
PHONE	Contact number	10	Str	
GENDER	gender	15	Str	
ETHNICITY	ethnicity	15	Str	
DOB	Date of birth	10	Date	
CURR_CITY	City of residence	15	Str	
CURR_STATE	State of residence	15	Str	
CURR_CONT	Country of residence	15	Str	
HOBBIES	things you like to do out of work	150	Str	
EMPLOYMNT	Current workplace	20	Str	
JOB_TITLE	Job title	20	Str	
DAY_TO_DAY	Day to day activities	150	Str	
STRENGTHS	What you are good at	150	Str	
LINKED_IN	Linked in account	30	Str	

Mentee Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
MENTEE_ID	Identification for mentors	5	Int	Primary
PASSWORD	Password for system	12	Str	
FIRST_NAME	First name	12	Str	
LAST_NAME	Last name	12	Str	
IMAGE_ID	headshot	Jpeg	Jpeg	Foreign
EMAIL	Uofl email	30	Str	
PHONE	Contact number	10	Str	
GENDER	gender	15	Str	
ETHNICITY	ethnicity	15	Str	
DOB	Date of birth	10	Date	
CURR_CITY	City of residence	15	Str	
CURR_STATE	State of residence	15	Str	
CURR_CONT	Country of residence	15	Str	
HOBBIES	things you like to do out of work	150	Str	
CIS_CONCET	Current concentration	15	Str	
LINKED_IN	Linked in account	30	Str	
MENTOR_ID	Mentor Identification	5	Int	Foreign

Survey Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
SURVEY_ID	Identification of surveys	5	INT	Primary
MENTEE_ID	Identifications of mentees	5	INT	Foreign
MENTOR_ID	Identifications of mentors	5	INT	Foreign
QUESTIONS	Questions asked	60	Str	

Classes Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
MENTEE_ID	Identification of mentees	5	Int	Primary
CIS_150	Cis class	1	bool	
CIS_199	Cis class	1	bool	
CIS_205	Cis class	1	bool	
CIS_305	Cis class	1	bool	
CIS_310	Cis class	1	bool	
CIS_320	Cis class	1	bool	
CIS_350	Cis class	1	bool	
CIS_410	Cis class	1	bool	
CIS_420	Cis class	1	bool	
CIS_481	Cis class	1	bool	
CIS_483	Cis class	1	bool	

Images Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
IMAGE_ID	Image identifier	5	Int	Primary
Image	The picture	Jpeg	Jpeg	
Image_url	Link to image	50	Str	

Businesses Table

Attribute	Attribute Def	Data Size	Attribute Type	Primary/Foreign
BUISNESS_ID	Business identification	5	Int	Primary
BUISNESS_NAME	Name	30	Str	
HEAD_CITY_LOC	Head city	15	Str	
HEAD_STATE_LOC	Head State	15	Str	
CONTACT_FNAME	contact	12	Str	
CONTACT_LNAME	contact	12	Str	
CONTACT_NUMBER	contact	10	Str	

Job Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
Job_ID	JOB IDENTIFICATION	5	Int	Primary
Buisness_ID	BUISNESS_IDENTIFICATION	5	Int	Foreign
Buisness_name	NAME	30	Str	
Image_ID	BUSINESS HEADSHOT	JPEG		Foreign
Comp	PAY	5	Float	
Job_Title	TITLE	20	Str	
Start_DATE	DATE	10	Date	
REMOTE	WORK FROM HOME	1	Bool	
CITY_JOB	CITY	20	Str	
STATE_JOB	STATE	20	Str	
COUNTRY_JOB	COUNTRY	20	Str	
KNOWLEDGE	PREFERRED SKILLS	150	Str	
DESC	DESC OF JOB	150	Str	
LINK_APPLY	LINK	50	Str	

Admin Table

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
ADMIN_ID	Identification for admins	5	Int	Primary
ADMIN_FNAME	First names	12	Str	
ADMIN_LNAME	Last names	12	Str	
EMAIL	Uofl email	30	Str	
ADMIN_PASS	Password for login	12	Str	

Donation Person Table

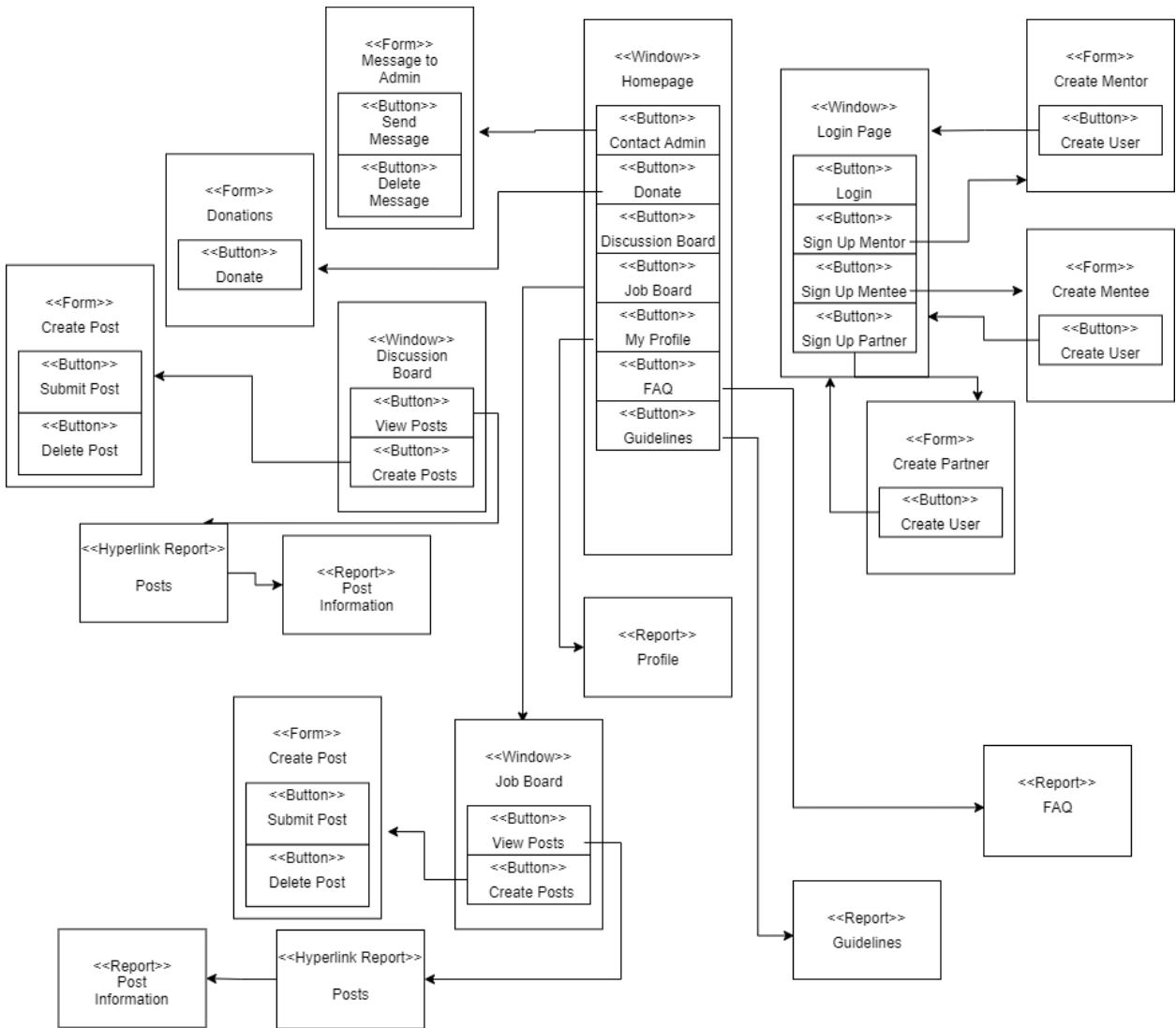
Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
Dono_ID	Dono identification	5	Int	Primary
Dono_fname	Dono first name	12	Str	
Dono_Lname	Dono last name	12	Str	
Email	email	30	Str	

Donation Amount

Attribute	Attribute Def	Size	Attribute Type	Primary/Foreign
Dono_amount_id	Single dono ID	5	int	Primary
Dono_id	Donor ID	5	int	Foreign
Dono_amnt	amount	10	float	

Window Navigation Diagram

This diagram is our Windows Navigation diagram which outlines the different interfaces the user can be taken to and how they are connected. Also depicted are the types of interfaces each is considered. The main page is our homepage which can take you to all of the major functions of our system such as the Job Board, Discussion Board, Admin Messaging, and FAQ interfaces. Our Profile, Guidelines, and FAQ are all considered reports as well as message view posts function further into the Discussion Boards Window.



Data Capture Prototypes

Mentor creation form:

Here would be the form that mentors would use to create an account. All of the spots that the mentor would fill out would cover everything necessary for them to then just click a checkbox later to have their form posted to the mentor board.

The screenshot shows a web browser window with the title "My Drive - Google Drive" and the tab "Iteration 5 - Google Docs". The address bar shows the URL "C:/Users/alexw/OneDrive/Desktop/CIS%20320%20Mockups/Mentor_Res.html". The page content is a "Mentor Registration Form" with the following fields:

- Email ID:** [Redacted]
- Mobile Number:** 7842000000 (10 Digits Allowed)
- Gender:** Male, Female, Transmale, Transwoman, Non-Binary, Other, Prefer Not to Say
- Ethnicity:** Hispanic
- Date of Birth(DOB):** Day, Month, Year
- Current Residing City:** Louisville
- Current Residing State:** KY
- Current Residing Country:** USA
- Are You a Current Student:** Yes, No
- Hobbies:** Ex- Video Games (Max 50 Characters Allowed)
- Current Employment:** Ex- Humana (Students Put Internships)
- Current Job Title:** Ex- Data Scientist (Students Put Internships)
- Can You Please Provide a Short Description of Your Day to Day Activities:** [Large text area] (Max 150 Characters)
- Can You Please Provide Some of Your Strengths:** Ex- Python, C#, SQL, Career Coaching, Time Management
- LinkedIn:** LinkedIn URL

At the bottom are "Submit" and "Reset" buttons.

Student Account Creation:

Here is a place for us to collect data on the students registering. This is one way for us to validate only students are accessing the different boards, this also is a way to see the population of our students.

The screenshot shows a Google Docs page titled "Student Registration Form". The form consists of several input fields and dropdown menus. At the top, there are three tabs: "My Drive - Google Drive", "Iteration 5 - Google Docs", and "Student Registration Form". Below the tabs, there are links to "File", "C:/Users/alexw/OneDrive/Desktop/CIS%20320%20Mockups/Student_Res.html", "Apps", "Gmail", "YouTube", "Maps", and "MGM 320 Chapter...".

Upload Headshot: A file input field labeled "Choose File" with the placeholder "No file chosen".

Email ID: An input field containing "yghanendra@gmail.com".

Mobile Number: An input field containing "7842xxxxxx" with the validation "(10 Digits Allowed)".

Gender: A radio button group with options: Male, Female, Other, Transmale, Transwoman, Non-Binary, and Prefer Not to Say. The "Male" option is selected.

Ethnicity: A dropdown menu set to "Hispanic".

Date of Birth(DOB): A dropdown menu for "Day", a dropdown menu for "Month", and a dropdown menu for "Year".

Current Residing City: A dropdown menu set to "Louisville".

Current Residing State: A dropdown menu set to "KY".

Current Residing Country: A dropdown menu set to "USA".

Hobbies: An input field containing "Ex-Video Games" with the validation "(Max 50 Characters Allowed)".

CIS Concentration: A list of checkboxes for CIS concentrations: Business Process Management, Web Development, Information Security, Graduate(Masters), CIS 150, CIS 199, CIS 205, CIS 305, CIS 310, CIS 320, CIS 350, CIS 410, CIS 420, CIS 481, and CIS 483. The "Business Process Management" checkbox is selected.

Classes Completed: A list of checkboxes for completed CIS classes: CIS 150, CIS 199, CIS 205, CIS 305, CIS 310, CIS 320, CIS 350, CIS 410, CIS 420, CIS 481, and CIS 483. Several checkboxes are selected, including CIS 150, CIS 199, CIS 205, CIS 305, CIS 310, CIS 320, CIS 350, CIS 410, CIS 420, CIS 481, and CIS 483.

LinkedIn: An input field labeled "LinkedIn URL".

Buttons: Two buttons at the bottom: "Submit" and "Reset".

Job/Internship Posting

This would be a way for our mentors to post opportunities for jobs and internships. We plan for this to be more of a quick information portal to find more information or a place to apply, not to be the final stop.

The screenshot shows a web browser window with a red-themed job/internship posting form. The browser's address bar shows the file path: C:/Users/alexw/OneDrive/Desktop/CIS%20320%20Mockups/Post_Jobs.html. The form has a dark header with navigation links: Prototype, Become a Mentor, Become a Mentee, and Find a Mentor. Below the header is a red section containing the title "Job/Internship Posting Form". The form fields are as follows:

- Company Name:** Human
- Upload Company Image:** Choose File (No file chosen)
- Job Title:** Ex- Data Analyst
- Compensation:** Ex- \$15 an Hour
- Job Type:** Full-Time
- Estimated Start Date:** Day: Month: Year:
- Is this Job Remote or Include Remote Option:** ● Yes ● No
- City of Job Location:** Louisville
- State of Job Location:** KY
- Country of Job Location:** USA
- Preferred Knowledge or Qualifications:** Ex- Python, C#, Excel
Max 150 Characters Allowed
- Job Description:** (Max 500 Characters Allowed)
- Link or Email to apply:** [Input field]

At the bottom of the form are two buttons: "Submit" and "Reset".

Donation Collection

The donation page will be clean and to the point. There's no reason to make it convoluted and deter users from donating by making it hard to understand and navigate.

Customer information

FIRST NAME

LAST NAME

EMAIL

ADDRESS

COUNTRY

Payment details

CARD NUMBER

NAME ON CARD

CARD TYPE

VALID THROUGH

CVC CODE

Partner Sign-up

The partner sign up page is similar to our other sign up pages. The partners will fill in all the relevant information in order to create their account.



Name *
First Name Last Name

D.O.B. * Date
mm-dd-yyyy

Address: *

Street Address

Street Address Line 2

City State / Province

Postal / Zip Code Country

E-mail * ex: myname@example.com

Phone Number: * -
Area Code Phone Number

Occupation

Special Skills (Optional):

Type password *

Password strength

Retype password *

Password strength

By clicking submit you agree that all information above is correct and accurate. We will email you once administration has approved the account.

Thank you!

Submit

Posting Guidelines Agreement

The partners will have to agree to the websites guidelines for posts before they can contribute to posts. They will have to read the agreement, click agree, type their digital signature and click submit.



Posting guidelines agreement

Partners

Please take the time to read the following terms & conditions regarding creating posts as a partner.
Once read check the box and digitally sign your name below.

I agree to [terms & conditions](#). *

Signature

[Clear](#)

Submit

Partner Profile Creation

Once a partner is signed up they will be able to create/edit their profile to their liking. They will fill out their information regarding their jobs, hobbies, and upload a headshot to their profile page.



Partner Profile Editor

Headshot No file chosen

Full Name
First Name Last Name

E-mail

Place of Employment

Company Description

Company Logo (JPEG/PNG) No file chosen

Job Title

Work Responsibilities

Awards or Special Accreditation

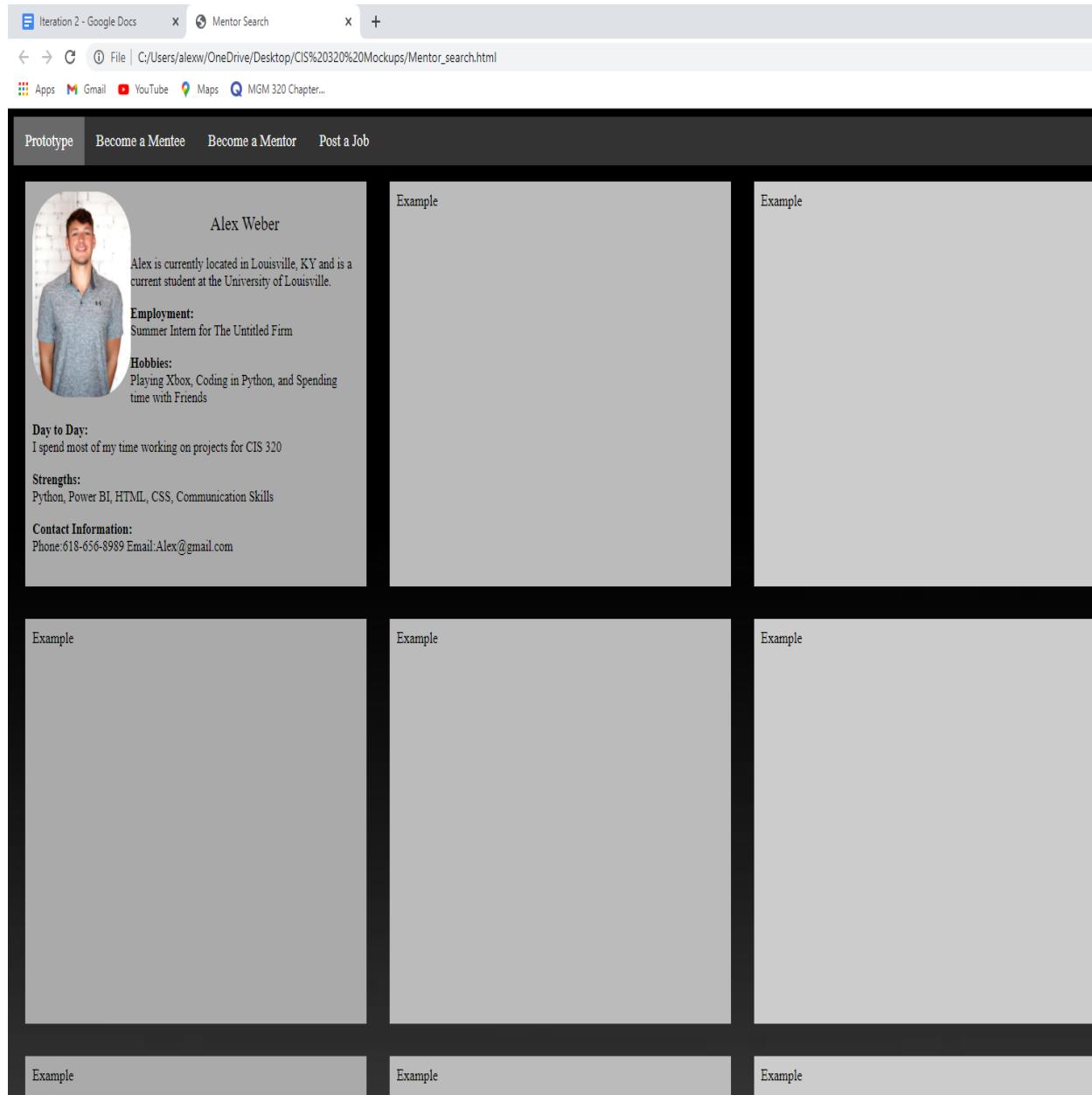
Hobbies and Interests Type here...

Submit

Data Presentation Prototypes

Mentor Board

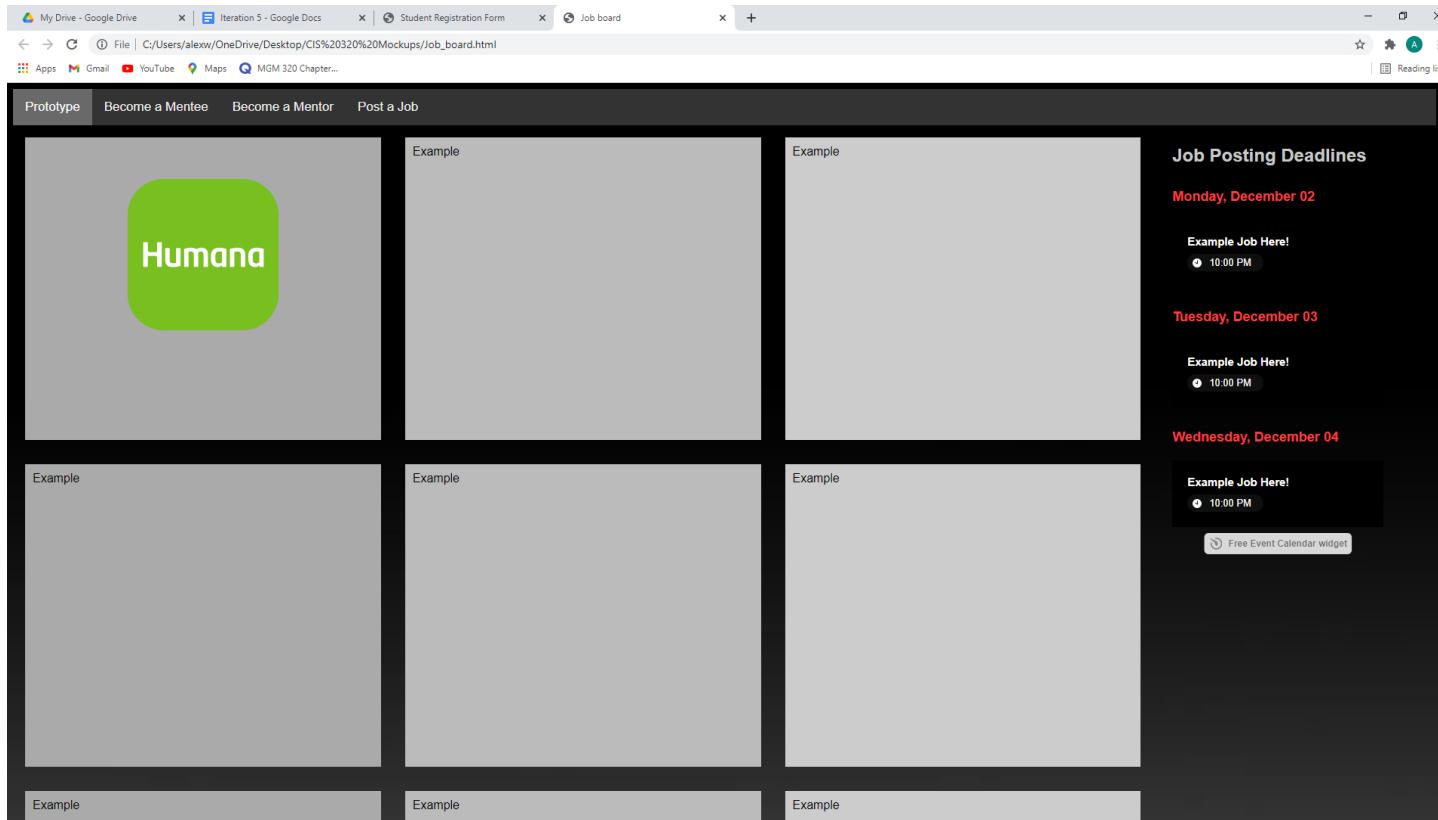
This is where people who allow their mentor profiles to be posted will be displayed. This will work like window shopping in that the user can scroll through the different profiles and pick a mentor to reach out too. All communication will be done independently and not through the web app.



The screenshot shows a web browser window titled "Iteration 2 - Google Docs" with the URL "Mentor Search". The page contains a navigation bar with links: "Prototype", "Become a Mentee", "Become a Mentor", and "Post a Job". Below this is a profile card for "Alex Weber". The card features a circular placeholder for a photo, followed by the name "Alex Weber". Below the name is a bio: "Alex is currently located in Louisville, KY and is a current student at the University of Louisville.". Under "Employment:", it says "Summer Intern for The Untitled Firm". Under "Hobbies:", it lists "Playing Xbox, Coding in Python, and Spending time with Friends". Under "Day to Day:", it states "I spend most of my time working on projects for CIS 320". Under "Strengths:", it lists "Python, Power BI, HTML, CSS, Communication Skills". Under "Contact Information:", it provides "Phone: 618-656-8989 Email: Alex@gmail.com". To the right of the profile card, there are three large, light-gray rectangular boxes labeled "Example" vertically, which are likely placeholders for other mentor profiles.

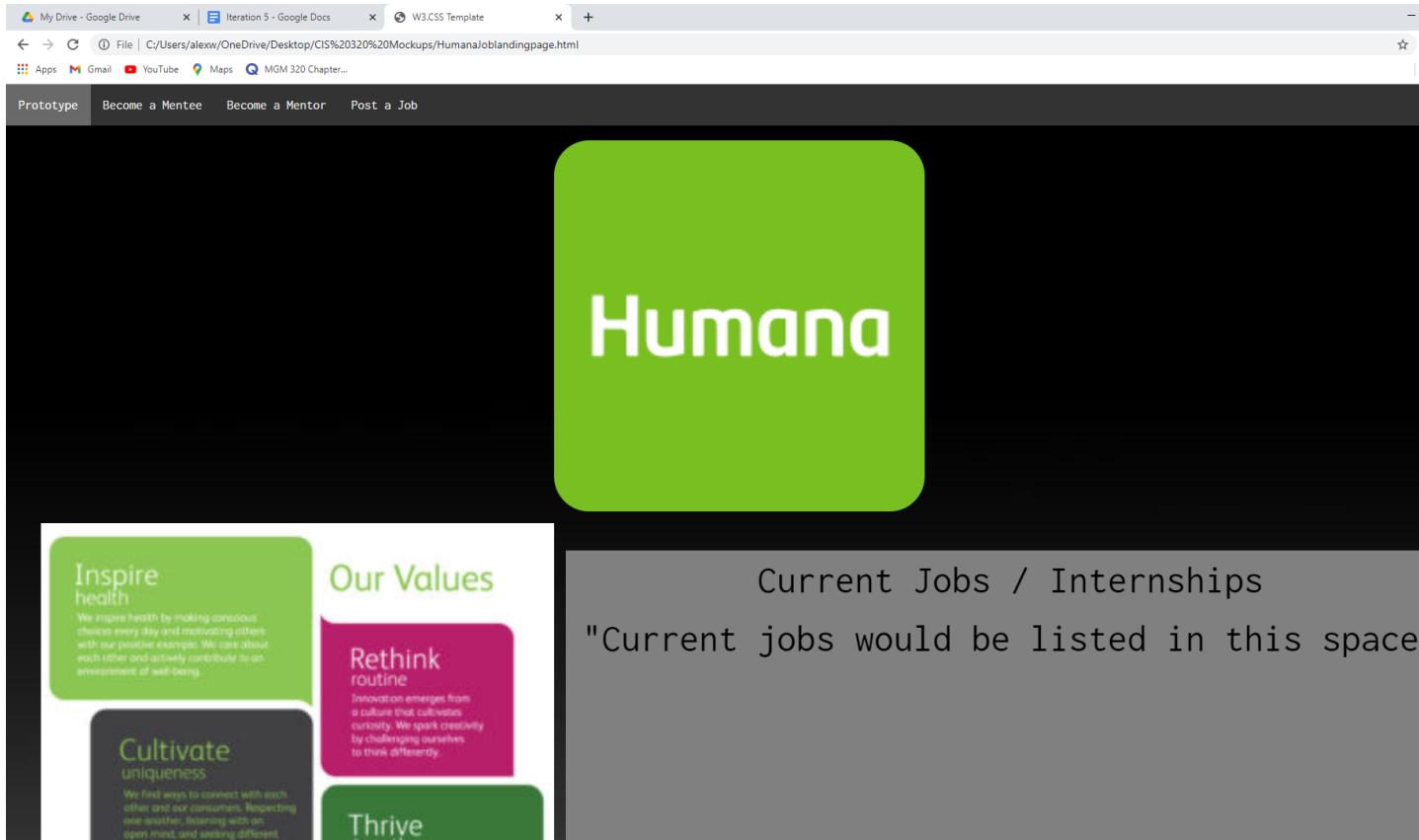
Registered Businesses Links

This is where our registered businesses would be displayed. Each of the logos is a clickable link that will source out to the page displaying all of the available jobs that each of the companies has to offer. It'll also display the Job deadlines on the side.



Registered Businesses Job postings

After clicking the logo this is where it will take you. This displays all of the available jobs and descriptions that people would be able to apply for.



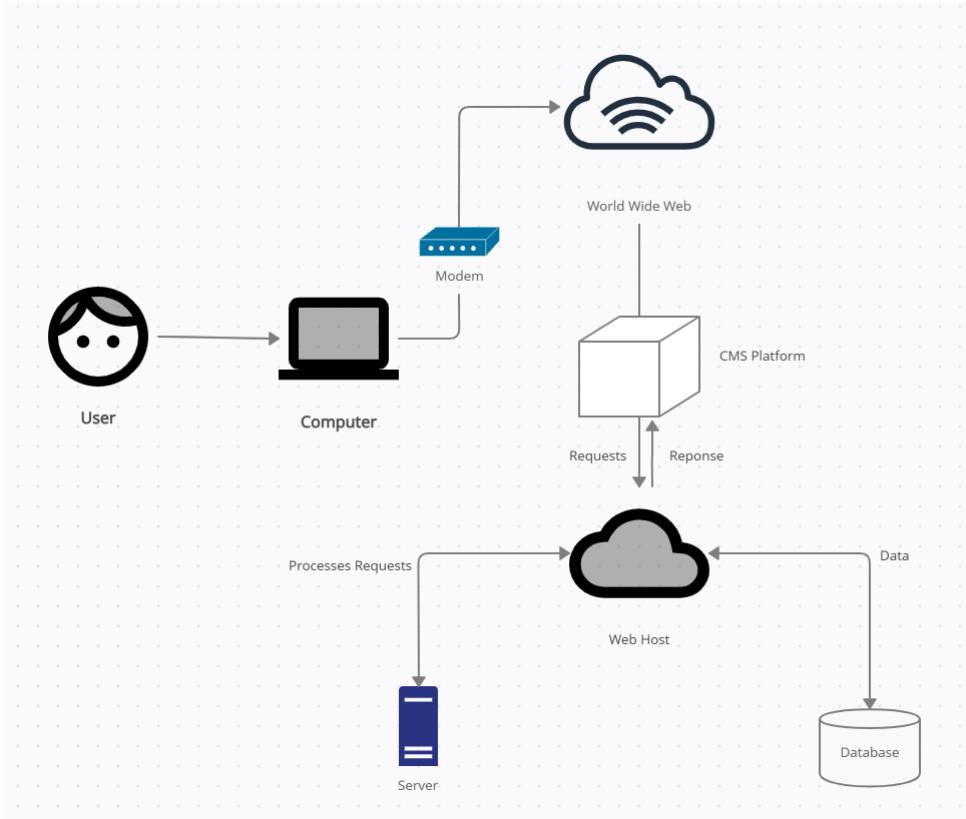
Physical Architecture Design

Design Viewpoint

In designing our system, we will need to acquire several components to provide all of the necessary functions to run the system.

Key Components:

- Users
 - ◆ Our users will populate our website and are the main actor in the system, or who the system is designed for. Our users will interact with the front-end of our system to match with mentors and find opportunities using the other features of our system.
- Content Management System (CMS)
 - ◆ A content management system (CMS) is computer software designed for creating and maintaining digital content. This will be used as the foundation of our web system providing features such as adding, removing, and modifying content on our website, such as posts on discussion boards. This will also allow us search and retrieval features for all of our data allowing us functions such as searching for mentors, and providing templates for creating professional profiles.
- Payment Management System (PMS)
 - ◆ A payment management system is software used to help keep track of business-related inquiries. In our case, a PMS will be used specifically for processing payments received from those making donations through our website.
- Web Server
 - ◆ A web server is the software and hardware used for managing web resources and responding to client requests over the web. This will allow our website to perform over the web.
- Database Server (DBS)
 - ◆ A database server will allow us to run and maintain a network database application as well as database files. With a DBS we will be able to store and maintain information on all of our users for setting up search preferences and tags, for instance.
- Security
 - ◆ Our system will require various forms of security to ensure that user information and the website is protected from harmful software and spam/bots. This will enforce system integrity and help make the system more reliable overall.



Realization Viewpoint

- **Users - Mentors and Mentees**
 - ◆ Users will be alumni, mentors, and partners looking to provide mentoring opportunities and jobs as well as the students and mentees in the UofL CIS program looking to take advantage of those opportunities.
- **Content Management System - Wordpress**
 - ◆ Wordpress has a broad range of features and plugins at affordable rates and has support with many platforms and services including our chosen Database Server/Management System -- MySQL-- as well as our web hosting service -- BlueHost. This will allow us
- **Payment Management System - PayPal**
 - ◆ Paypal has specific Wordpress plugin and integration to seamlessly work with our website as a form of processing donation requests.

- Web Server - BlueHost
 - ◆ BlueHost has affordable monthly rates starting at \$2.95 for one website on a shared server with basic server storage and functionality with potential to grow as the website grows.

- Database Server - MySQL
 - ◆ Wordpress strictly runs using the widely chosen MySQL database management system using SQL Server as the foundation. All of BlueHost's web hosting includes MySQL compatibility and support so this a great option.

- Security
 - ◆ reCAPTCHA - a free software developed by Google to authenticate users entering a web space.
 - ◆ SSL Certificate - provides a more secure HTTPS connection over the web using enhanced encryption to protect payment information and user information like usernames and passwords used for registration and login.
 - ◆ User Login - another layer of user authentication that is a basic form of preventing unauthorized web users from entering the web space.

Design Procedures for Security Concerns and Non-Functional Requirements

To meet our non-functional requirements, we will need to:

- Integrate Google reCAPTCHA verification
- Connect to the University Firewall
- Purchase a BlueHost subscription (server)
- Create a MySQL database
- Integrate PayPal

In order to make the system for our client secure, we have implemented several security measures. One of these essential measures is connecting to the university firewall in order to ensure we have the same protection as other university websites.

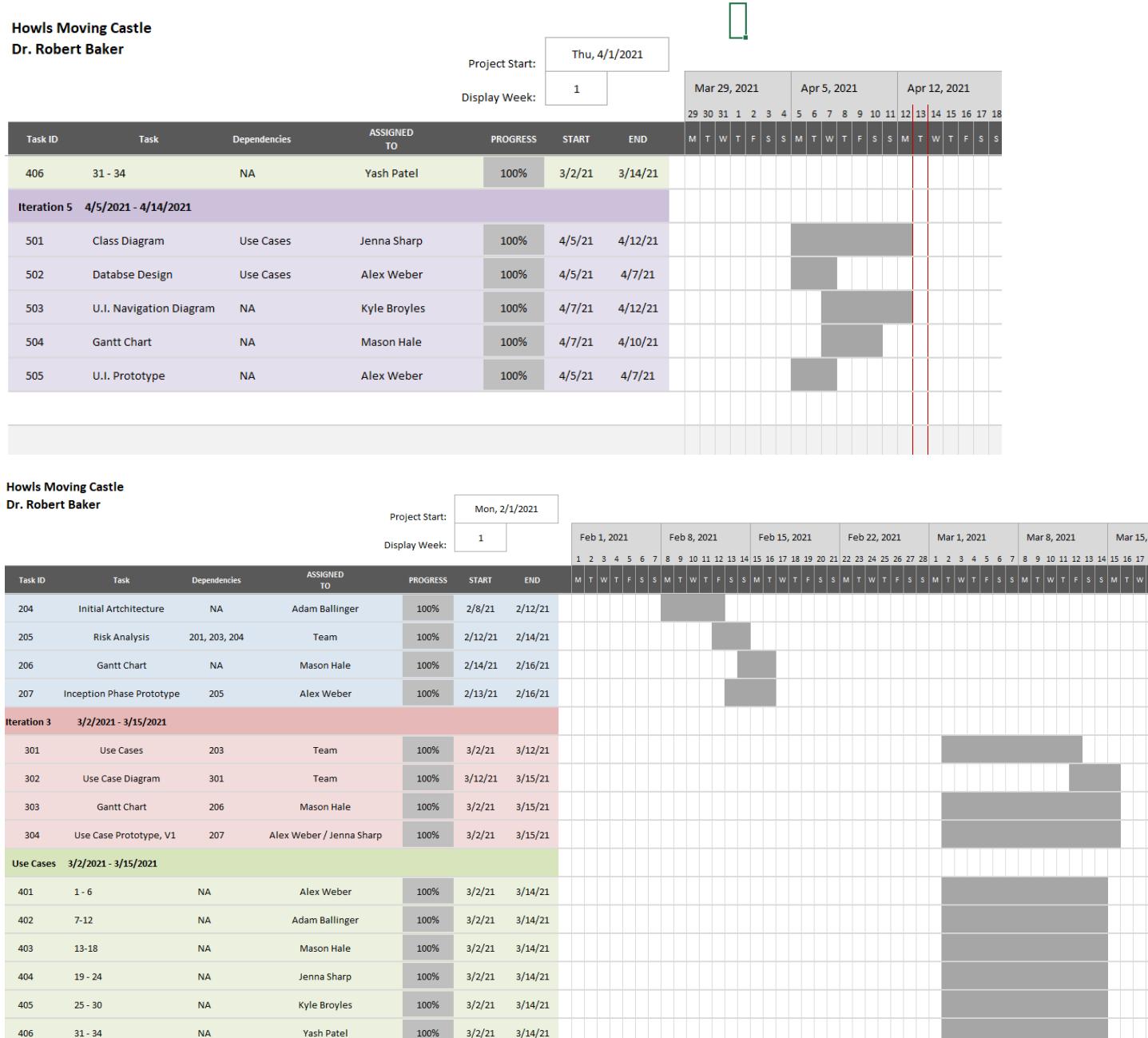
However, we want to go above and beyond basic firewall protection. For example, it is important to limit access to the website to only those individuals who have created accounts and been approved by administration. To do this, not only do we require users to sign in and authenticate themselves, but we also plan on using Google's reCAPTCHA verification to ensure that the "user" attempting to access the system is indeed a user and not some piece of malicious software/

For the system itself, we have chosen WordPress as the content management system. To host the site, however, a BlueHost subscription is required and it integrates well with WordPress to host our site on a secure server. Because the website will accept donations, another vital security concern is managing a user's payment data. Instead of doing this ourselves and potentially leaving the client open to legal action if the data weren't stored correctly, we plan on integrating PayPal with WordPress as well to secure all financial transactions.

Finally to store data, a MySQL database will need to be created. The design procedure for this system would be to first design the system on WordPres as well as create the database. Then, integrations such as connecting to the University Firewall, using PayPal, and using Google reCAPTCHA verification can be added. Finally, the BlueHost subscription can be purchased and the website can be launched.

Gantt Chart

The Gantt chart made visualizing our process very easy. Our projected completion date was achieved as you can see by the timeline above. Splitting tasks amongst the group members was the best route to take for us.



Elaboration Phase Prototypes (Not in the Data needs Section)

Photo Carousel

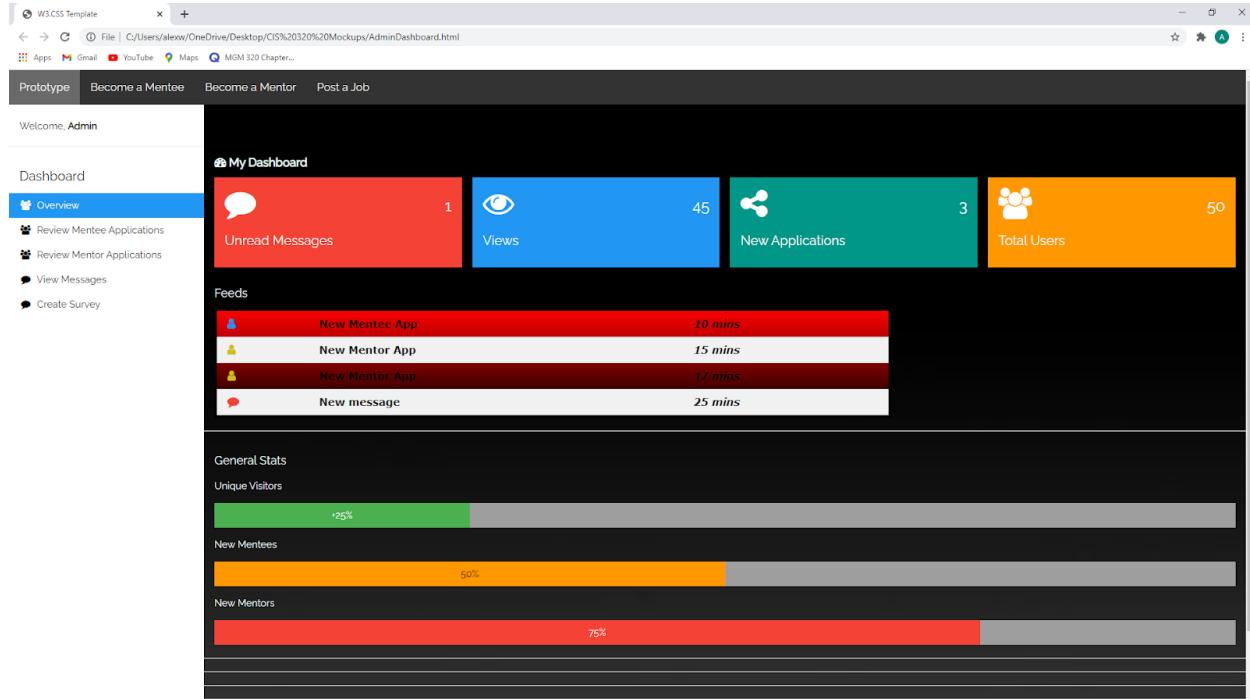
This prototype displays the website's carousel in edit mode. At the top is an input field where an administrative user can upload a new image or paste in an image source link to include in the carousel. The images below this field with the red 'X' symbols allow an administrator to delete unwanted or outdated images. The large carousel below is a preview of what users will see on the home page when they visit.

Please input image source



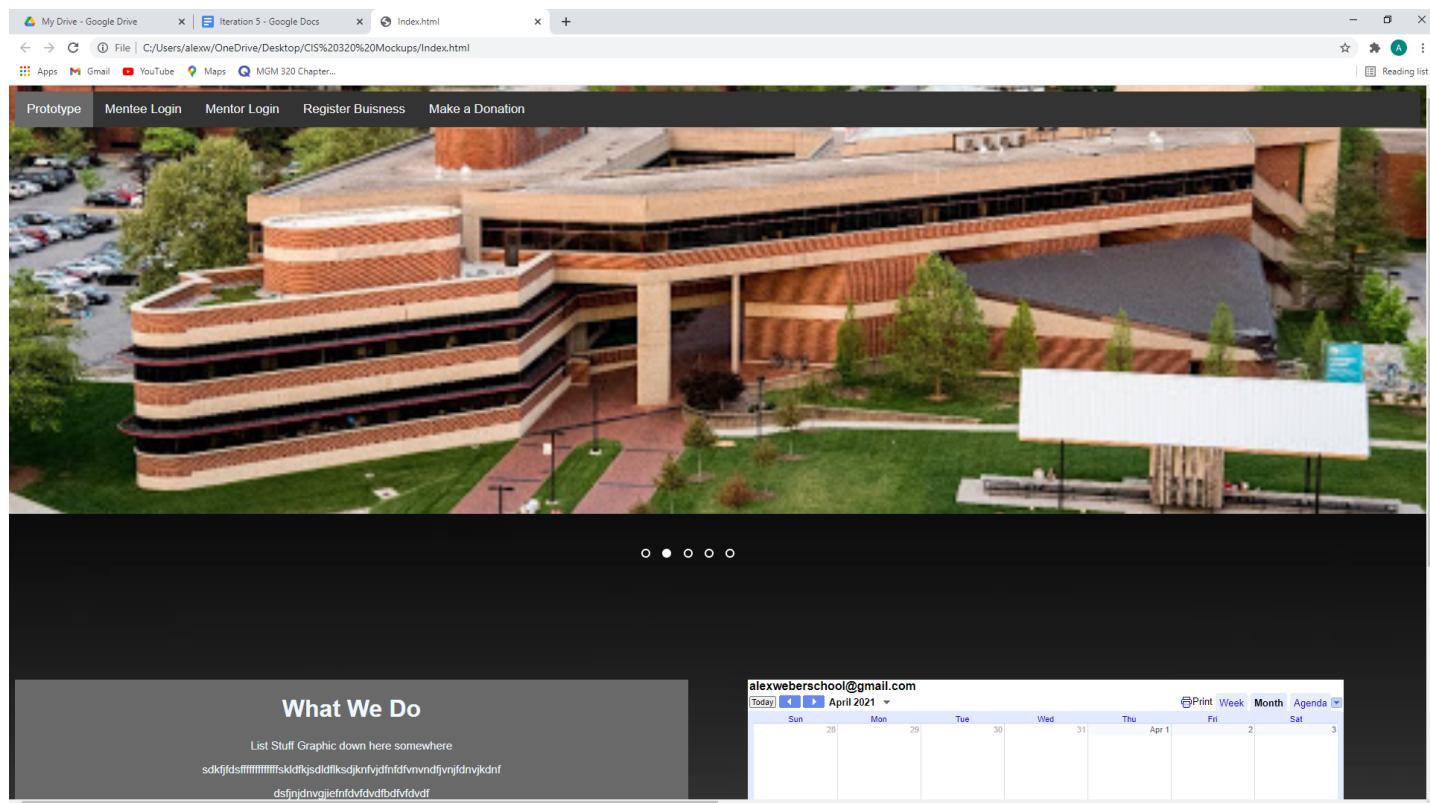
Admin Dashboard

The admin dashboard will have everything that an admin would need to keep track of. Messages, page views, user count, etc will all be in one place that is easily navigated to keep track of the website in an efficient manner.



Landing Page

Our landing page includes an about us page as well as the calendar for upcoming events and deadlines. Also at the top we included the navigational items used to sign in or register as a mentee/mentor or register a business/make a donation.



Mentor FAQ page

This is our frequently asked questions page mentors will use to answer their questions without having to contact administration. Once on the page there will be the FAQ's, clicking on one will bring you to a page with specifics regarding the question until they get the answer they need.



1→ Frequently asked questions from mentors.

Key A	How do I post to the job board?
B	How long does it take for my post to be approved?
C	How can I donate?
D	Who can view my profile?
E	Contact an administrator.