System Request

Project Name
UofL COBweb

Project Sponsor
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Business Need
Background:
The retention rate of CIS students past the initial courses is not nearly as good as it should be. After people take CIS-150 and CIS-199, there is a significant number of students either changing major or dropping out from school entirely.

Business Opportunity:
One way to keep more students in the CIS department is to provide a sense of community. An ideal way to do this is to build a website that makes creating connections between current students and alumni.

Business Requirements
The system will provide a website that gives opportunities for students to form meaningful connections between themselves and with alumni. The system will also provide job opportunities posted by the alumni for students to apply to. This system will provide a community for the students via discussion boards. The system also provides a shared area to receive announcements from the CIS department. The system provides a way to collect information from alumni to better understand what happens post-graduation. Lastly, the system will provide a way for alumni to give back to the CIS program via donations.

Business Value
Tangible Value:
- The system should help retain students which will give the CIS department more funding.
- The donations system on the website should give more funding to the CIS department's acquisition of materials to better teach students.

Intangible Value:
- Good PR for the CIS program for retaining larger amounts of students.
- More potential jobs entering the city of Louisville with more technical field graduations.

Narration

Since we are in a pandemic, COVID-19 has made things clearer in what our society is lacking when we did not really notice a problem before. Many students in the College of Business are switching majors and this problem is not just for our students within the CIS tracks - it is for the whole university. The problem that we face is due to many students leaving/switching majors, our retention rate for the CIS department is low. Our solution is to provide a quick and effortless way to connect with upperclassmen, as well as alumni, professors and other students who are going through the same classes. Our website is called “CobWeb” for the easy networking connections about classes and help in the College of Business (play on the word cobweb as well). This will help students get connected with everyone in the College of Business and will offer help for all classes!

The business value this would add is by creating a positive community within the CIS students, retention rate will increase. Within the CIS department, there are three different tracks you can go on; each track has different requirements and classes. By creating “CobWeb”, it will help students feel less alone in their endeavors by providing a support system within the community and adding more learning tools to help with difficult classes. Lastly, active upper class students will network with lowerclassmen while providing educational and emotional support during potentially challenging times.

Cause	Effect
Once students pick their track in CIS, he/she will follow the classes the track offers.	They will get help and other students who are enrolled in those same classes can help each out with also alumni and professors.
If it is a weekend or late night, then students can use the tools provided in the chat.	This will provide a communal bond and will help reduce the gap and increase the number of students who graduate with a CIS degree.

Vision (Small Project)

1. Introduction

The purpose of this document is to plan and envision the "COBWeb" website. Our team has come across the need for a mentor matching website due to the College of Business' ever increasing attrition rate. With this increased attrition rate, comes a massive opportunity cost from lost tuition. We believe that a missing sense of community and lack of mentoring has caused this to occur. This platform will be for COB CIS students and effects their attrition and graduation rate in the program. The main aspect of the "COBWeb" website will be the mentor matching feature. We want struggling students to be able to reach out either to past alumni or upper-class students who have survived the classes the struggling student is currently taking. The mentor can encourage or guide the student through the course which in turn decreasing the CIS departments attrition rate and saving the school thousands of dollars.

1.1 References

Positioning

Problem Statement

The problem of	*Low student retention rate*
affects	*Student population and graduation rates*
the impact of which is	*Incoming students unsure of their career path*
a successful solution would be	*Service that networks new students/upperclassmen/faculty/alumni*

Product Position Statement

This service, at its peak, will allow students to have access to a large network of students/faculty/alumni to have as guidance for their career.

For	*New COB CIS students*
Who	*Are undecided in the College of Business.*
The (product name)	*cobweblou.edu*
That	*The website allows new students to network with upperclassmen/alumni to learn more about what career path to take.*
Unlike	*Uoflbizconnect.org, whose URL is not very creative and has few CIS users. It also does not have multi-language support for international students.*
Our product	*Our product is to be more CIS-student oriented.*

We plan to have this service to provide more CIS student support.

Stakeholder and User Descriptions

There will be many stakeholders and users for our final product, and it is important to look at each of their responsibilities and impacts. The main stakeholders for this project are involved with the CIS department and their manager, employees, and just the organization in general. The end users are comprised of undecided CIS students, UofL alum, current CIS students and administrators.

Stakeholder Summary

Name	Description	Responsibilities
Organization	The CIS department at UofL.	Responsible for approving funding Responsible for
Employees	Whoever is working in the CIS department at UofL.	Ensures that students will sign up and use our website.
Manager	Professor Barker at the CIS department	Choosing which project is to be approved. Sending the project to the coding students in the 400-level class. Being an Admin on the website. Monitors the projects progress.

User Summary

This chart will list the types of end users in this service.

Name	Description	Responsibilities	Stakeholder
Undecided CIS student	*This user will be welcomed by potential mentors by selecting CIS major in a filter.*	*This user will look at profiles of alumni/upperclassmen/fellow undecided CIS students and will communicate using discussion boards/individual messaging/job posting.*	*The Manager oversees their interest.*
UofL Alumni	*A past UofL student that has graduated.*	*This user will primarily be advertising themselves to current undergraduate students who are looking for guidance while also keeping in touch with faculty and fellow alumni.*	*The Manager oversees their interest.*
UofL Current CIS student (upperclass men)	*A student currently enrolled in the CIS program closer to graduation.*	*This user will primarily be using the website as another networking opportunity among fellow CIS peers. What makes cobweblou unique to other sites is that this one will be UofL specific (UofL students/alumni/faculty ONLY).*	*The Manager oversees their interest.*
Admins	*An employee that manages the website's announcements,* *Calendar and sign-up approval.*	*These users will be primarily using the website to send out information using the alert system. Update calendars and approve site sign up requests.*	*Employee or manager.*

User Environment

Most end users will be only tasked with checking the website frequently and using the mentor matching program if they wish to do so. The only end user that has task to do would be the admins. Admins will oversee approving created accounts, updating calendars and manage the announcement system.

Summary of Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Decreased attrition rate.	High	A massive opportunity cost that comes from the loss of students	N/A	Create a mentoring website to help grow a sense of community and to guide struggling students through the CIS courses and mentor them to success.
Alumni tracking system.	High	It may take a while for this to become useful because current alums are unlikely to sign up for this website.	N/A	Create an email list to track alums so we can survey them in the future to see what their up to.

Alternatives and Competition

The biggest competition for cobweblou is uoflbizconnect.org. This service, while besides having been around longer, has a layout for a home page akin to LinkedIn and Facebook. With sites like these familiar to most people, it can be considered user-friendly. Not only is uoflbizconnect.org user-friendly, it also lets users link their other social media profiles from different platforms.

Product Overview

Product Perspective

The COBweb is going to be mostly independent, and self-contained but will require a content management service and a payment processing service. The payment processing will be for the donations tab where alumni can directly donate to the CIS department. The content management system will be the basis for how our website is built. We have chosen word press for the CMS and Venmo for the payment system.

Assumptions and Dependencies

We are assuming that the CIS 400 level students will be coding this next fall 2021 semester in their class and we are dependent on them for carrying out our vision. We are assuming that professor barker will pick our project for the coding phase. We are assuming that these are all of the requested features.

Product Features

The website needs the following features:

- A landing page.

    - The homepage of our website which will be the first thing seen when opening the website.
    - High priority
- A photo carousel on the landing page.
    - A photo display that will automatically cycle to make the landing page look nice.
    - Medium priority
- A sign-up system.
    - The system where students, alums and admins will create their accounts. This information will be used for mentor matching.
    - High priority
- A login system.
    - Where students, alums, and admins will signup
    - High priority
- A calendar page.
    - A tab on the website where important dates and events will be shown.
    - High priority.
- An Announcement System.
    - A system where an admin can send out alerts to alums or students about vital information.
    - High priority.
- A mentor matching system.
    - A system to match mentors to those who are searching for a mentor.
    - High priority.
- A discussion board.
    - An area for students, alums and admin to discuss in a forum style.
    - Medium priority
- A donation page.
    - A place for alumni or others to donate directly to the CIS department.
    - Priority high.
- A mentor connection section.
    - A place where matched mentors and students can share information so that they can communicate.
    - High priority
- An approval system.
    - This website will need an approval process for accounts so that it can be an CIS exclusive system.
    - High priority.
- An admin control panel.
    - A place for the admins to be able to carry out their responsibilities efferently and effectively.
    - High priority.
- A job board.
    - Where job opportunities would be posted for students and alums to apply for.
    - High priority.

Other Product Requirements

- The website requires a hosting service (WordPress).
- Be accessible to web users.
- It will require someone to fulfill the role of administrator.
- Provide management reports (such as user demographics, system use, and time spent on the system) for administrators.
- Validation process for users.
- It will need a user-friendly sign-up.
- It will have a student/alum matching process.
- It will have a student search process.
- Administrator monitoring to prevent inappropriate communication and use of system between users.
- COBWeb will give the users the ability to send user feedback for future improvements to system.

COBWeb will have the function of email blasting (automated email by administrators) to send out information to everyone enrolled in the system in a quick and easy way.

Appendix A: Economic Feasibility – Cost and Benefit Analysis

Here is a visual representation of our Cost Benefit analysis. Figure A shows how we received the numbers we used for the NPV, ROI, and Breakeven Point calculations. The Hourly rates that we used to calculate the wages for us as developers were found using the Kentucky Bureau of Labor Statistics with hourly rates for the Project Manager, 2 Developers, 1 Programmer, and a Database Administrator. The total labor costs was around $30,000. Our other costs were an initial outlay of $1000 for Wordpress plugins, Yearly costs of a hosting plan, sql server subscription, maintenance, and domain costs. Our benefits were calculated using the amount of money given to the CIS program for each hour taken, after the usual drop-out after CIS 199. Our donations were estimated using yearly donation statistics to colleges combined with an estimated percentage of alumni/mentors in the program willing to donate.

Our conservative NPV is $162,449 (Figure B). Our optimistic NPV is $578,734 (Figure C). Finally, our expected NPV is $356,572 with an around 900% ROI and a break-even point of just over half a year (Figure D).

Project Costs

Position Title	Hourly Rate	Number of People	Weekly Hours Worked On Project	Weeks of Development	Cost Per Position
Project Manager	43.48	1	10	15	6522
Developer	42.14	2	10	15	12642
Analyst	35.36	1	10	15	5304
Database Admin	42	1	10	15	6300
				Total Labor Initial Costs	**$ 30,768**

	Subscription (Yearly)			
Cost of SQL Server	**$ 1,418**		**CMS Costs**	**1000**
DreamPress Plus Hosting Plan (includes security)	**$ 299**	**Yearly Costs**		

	Hurdle Rate	6.25%
	Inflation	2.24%

Benefits

Revenue From Student Retention

	Pessimistic	Standard	Optimistic
Average Students Lost	20	20	20
Student Retention From Website	25%	50%	75%
Students Kept	5	10	15
Average Credit Hours After 199	30	30	30
Money given to program per credit hour	330	330	330
Money Earned by Keeping Student	**$49,500**	**$99,000**	**$148,500**

(Yearly Gain After First Year)

(First Year Revenue Cut in Half Because it takes 2 years to realize full benefit of student retained in program.)

	Standard Courses Taken After 199	5
	Specialization Courses	5
	Credit Hours Per Course	3
	Total Hours After 199	**30**

Revenue From Donations

	Pessimistic	Standard	Optimistic
Amount of Alumni On Site	300	300	300
Percentage of Alumni That Donate (Yearly)	5%	8%	10%
Donating Alumni	15	24	30
Average Donation to College	$265	$265	$265
Donation Revenue	**$3,975**	**$6,360**	**$7,950**

Figure A

NPV Calculations Conservative

			Year:	0	1	2	3	4	5	Totals
Benefits										
	Retention				24,750	50,609	51,742	52,901	54,086	234,089
	Donations				3,975	4,064	4,155	4,248	4,343	20,786
Total Benefits					28,725	54,673	55,898	57,150	58,430	**$254,875**
Costs										
	Sunk									
		Labor		30,768						
		DB		1,418						
		CMS		1,000						
		Cloud		299						
	Sunk Cost Total			**$33,186**						
	Annual									
		Maintenance			500	511	523	534	546	2,615
		Consumables			1,000	1,022	1,045	1,069	1,093	5,229
		DB License			1,418	1,450	1,482	1,515	1,549	7,415
		Cloud			299	306	313	320	327	1,566
		Domain			20	20	21	21	22	105
		Retained Costs			33,485	7,998				
Total Costs					36,723	3,310	3,384	3,460	3,537	**$50,414**
Net					(7,998)	43,365	52,513	53,690	54,892	**$204,461**
CashFlows				(33,485)	25,488	51,363	52,513	53,690	54,892	
	ROI:	406%								
	NPV:	$ 162,449								
	Break Even	1.16								

NPV Calculations Optimistic

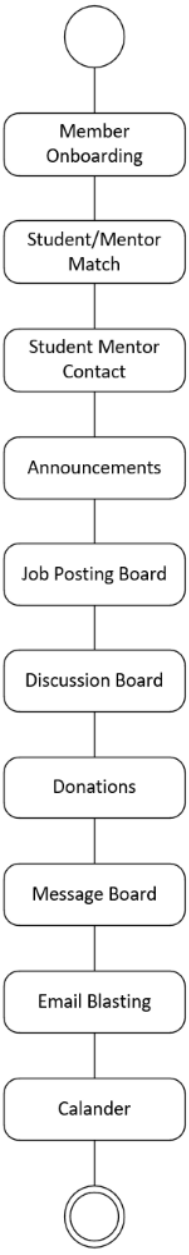
			Year:	0	1	2	3	4	5	Totals
Benefits										
	Retention				75,913	155,227	158,704	162,259	165,894	717,998
	Donations				8,128	8,310	8,496	8,687	8,881	42,502
Total Benefits					84,041	163,537	167,201	170,946	174,775	**$760,501**
Costs										
	Sunk									
		Labor		30,768						
		DB		1,418						
		CMS		1,000						
		Cloud		299						
	Sunk Cost total			**$ 33,485**						
	Annual									
		Maintenance			511	523	534	546	559	2,673
		Consumables			1,000	1,022	1,045	1,069	1,093	5,229
		DB License			1,450	1,482	1,515	1,549	1,584	7,581
		Cloud			306	313	320	327	334	1,601
		Domain			20	21	21	22	22	107
		Retained Costs			33,485					
Total Costs					36,773	3,361	3,436	3,513	3,592	**$50,676**
Net					47,268	160,176	163,764	167,433	171,183	**$709,825**
CashFlows				(33,485)	80,754	160,176	163,764	167,433	171,183	
	ROI:	1401%								
	NPV:	$ 578,734								
	Break Even	0.41								

NPV Calculations Expected

			Year:	0	1	2	3	4	5	Totals
Benefits										
	Retention				49,500	101,218	103,485	105,803	108,173	468,178
	Donations				6,360	6,502	6,648	6,797	6,949	33,257
Total Benefits					55,860	107,720	110,133	112,600	115,122	**$501,435**
Costs										
	Sunk									
		Labor		30,768						
		DB		1,418						
		CMS		1,000						
		Cloud		299						
	Sunk Cost Total			**$33,485**						
	Annual									
		Maintenance			500	511	523	534	546	2,615
		Consumables			1,000	1,022	1,045	1,069	1,093	5,229
		DB License			1,418	1,450	1,482	1,515	1,549	7,415
		Cloud			299	306	313	320	327	1,566
		Domain			20	20	21	21	22	105
		Retained Costs			33,485					
Total Costs					36,723	3,310	3,384	3,460	3,537	**$50,414**
Net					19,137	104,410	106,749	109,140	111,585	**$451,021**
CashFlows				(33,485)	52,623	104,410	106,749	109,140	111,585	
	ROI:	895%								
	NPV:	$ 365,572								
	Break Even	0.64								

Activity Diagram To-Be Process Model

Because there is no focus existing website, there is no “As-Is” Activity Diagram to show. This diagram shows the different activities that will be done inside of the website from the users. They will start with member onboarding (i.e. sign up.) Then they will interact with the primary purpose of the website which is to interact with the student and mentor matching/search functionality. They will then contact/ be contacted using email. A user will look at the announcements given by the admin. They will look at/post on the job board. They will interact with the discussion board. They will use the message board if they wish to contact Dr. Barker. Finally the user will receive email blasts from the administrators and view events on a calendar.



System Requirements

Listed below are requirements needed to create "CobWeb". All requirements for the website are to be created in WordPress/SQL while connected to the servers needed to store data.

- A landing page.
  - The homepage of our website which will be the first thing seen when opening the website.
  - High priority
- A photo carousel on the landing page.
  - A photo display that will automatically cycle to make the landing page look nice.
  - Medium priority
- A sign-up system.
  - The system where students, alums and admins will create their accounts. This information will be used for mentor matching.
  - High priority
- A login system.
  - Where students, alums, and admins will signup
  - High priority
- A calendar page.
  - A tab on the website where important dates and events will be shown.
  - High priority.
- An Announcement System.
  - A system where an admin can send out alerts to alums or students about vital information.
  - High priority.
- A mentor matching system.
  - A system to match mentors to those who are searching for a mentor.
  - High priority.
- A discussion board.
  - An area for students, alums and admin to discuss in a forum style.
  - Medium priority
- A donation page.
  - A place for alumni or others to donate directly to the CIS department.
  - Priority high.
- A mentor connection section.
  - A place where matched mentors and students can share information so that they can communicate.
  - High priority
- An approval system.
  - This website will need an approval process for accounts so that it can be an CIS exclusive system.
  - High priority.
- An admin control panel.
  - A place for the admins to be able to carry out their responsibilities efferently and effectively.
  - High priority.
- A job board.
  - Where job opportunities would be posted for students and alums to apply for.
  - High priority.
- Message Board
  - Where students and alumni message Admins about questions/concerns.
  - Low Priority
- System Backup
  - System will back up periodically via the hosting service.
  - High Priority

- Email blast technology
    - The system will allow you to send emails to all users of the system.
    - Priority high.

Use Cases and Risk Analysis

Below here are the listed use cases show casing what the users will be doing on the website. For example, Case 1 show cases what happens when a student is signing up for the website. These are here to really understand what we need the website to do by figuring out the actions different users will be doing on the website. Each case has a specified risk level- low or high. High risk cases are related to safety of the user's information and the system executing to meet the client's goals. The high-risk situations identified are the top priority when addressing problems.

Case 1: Add Student
Actor: CIS student
Users will enroll with ULink ID and Password. CIS majors will be automatically approved.
Risk: Low

Case 2: Modify Student
Actor CIS Student
Users will modify the information given in the add student process.
Risk: High

Case 3: Delete Student
Actor CIS Student
User will delete their account.
Risk: High

Case 4: Add Alumni/Mentor
Actor: Alumni/Mentor
User will create account with normal Email and additional information.
Risk: High

Case 5: Modify Alumni/Mentor
Actor Alumni/Mentor
User will modify information given in Add alumni/mentor.
Risk: Low

Case 6: Delete Alumni/Mentor
Actor Alumni/Mentor
User will delete account.
Risk: Low

Case 7: Account Approval
Actor: Administrator
Users will approve accounts from non-UofL emails (alumni/professionals)
Risk: Low

Case 8: Account Rejection
Actor Administrator
Users will reject accounts that don't meet the criteria for entry.
Risk: Low

Case 9: Log in

Actor All
User will log in with credentials.
Risk: High

Case 10: Back Up Website
Actor 3rd part host
Website will be backed up by the hosting service.
Risk: High

Case 11: Student Search
Actor: CIS Student
Users will use search features to match with other students, alumni, and mentors.
Risk: High

Case 12: Mentor Select
Actor: CIS Student
User will select the mentor that matches their preference.
Risk: High

Case 13: Mentor Match
Actor: Students and Alumni/Mentor
Users will be matched based on preferences given in on boarding.
Risk: High

Case 14: Send Email
Actor: CIS Student / Alumni
Users will email others with given matched user.
Risk: Low

Case 15: Add Job Post
Actor: Alumni
User will post jobs that they have available in their company.
Risk: Low

Case 16: Modify Job Post
Actor Alumni
User will modify the details of the job post.
Risk: Low

Case 17: Delete Job Post
Actor Alumni
User will delete the Job Post
Risk: Low

Case 18: Add Donation
Actor: Alumni
User will donate money to the CIS program.
Risk: High

Case 19: Modify Donation
Actor: Alumni

User will modify details of the donation before it is submitted.
Risk: High

Case 20: Delete Donation
Actor: Alumni
User will cancel their donation to the website.
Risk: High

Case 21: Add Announcement
Actor Administrator
User will announce upcoming events in an announcements page.
Risk: Low

Case 22: Modify Announcement
Actor Administrator
User will modify the content of an announcement.
Risk: Low

Case 23: Delete Announcement
Actor Administrator
User will delete an announcement.
Risk: Low

Case 24: Upload Photos
Actor Administrator
User will upload photos to the photo carousel.
Risk: High

Case 25: Modify Photos
Actor Administrator
User will Modify photos in the photo carousel.
Risk: Low

Case 26: Delete Photos
Actor: Administrator
User will delete photos from the photo carousel.
Risk: Low

Case 27: Create Calendar Events
Actor Administrator
User will add events/notices to a calendar.
Risk: High

Case 28: Modify Calendar Events
Actor Administrator
User will modify events/notices in the calendar.
Risk: Low

Case 29: Delete Calendar Events
Actor Administrator
User will delete events/notices from the calendar.

Risk: Low

Case 30: Add Email Blast
Actor Administrator
Users will create email that will be sent to users of the system.
Risk: High

Case 31: Modify email blast
Actor Administrator
User will modify the content of the email being sent out.
Risk: High

Case 32: Delete Email Blast
Actor Administrator
User will cancel sending the email blast to the user base.
Risk: High

Case 33: Discussion Board Creation
Actor Student/Alumni
User will create a discussion board for students to discuss topics.
Risk: High

Case 34: Modify Discussion Board
Actor Student/Alumni
User will modify the title/discussion topic of the discussion board.
Risk: High

Case 35: Delete Discussion Board
Actor: Student/Alumni
User will delete the discussion board they posted.
Risk: Low

Case 36: Add Reply in Discussion Board
Actor: Student Alumni
User will add a reply to the discussion board's topic/question.
Risk: Low

Case 37: Modify Reply in Discussion Board
Actor: Student/Alumni
User will modify their reply in the discussion board.
Risk: Low

Case 38: Delete Reply in Discussion Board
Actor: Student/Alumni
User will delete their reply in the discussion board thread.
Risk: Low

Case 39: Create Message Board
Actor student/alumni
User will create a message board that only an Admin/Dr. Barker can see.
Risk: Low

Case 40: Modify Message Board
Actor student/alumni
User will modify the content of their message to Admin/Dr. Barker.
Risk: Low

Case 41: Delete Message Board
Actor: Student/Alumni
User will delete their message board post.
Risk: Low

Case 42: Add Message Board Reply
Actor Admin
User will add a reply to a user's message.
Risk: High

Case 43: Modify Message Board Reply
Actor: Admin
User will modify their reply to a user's message.
Risk: Low

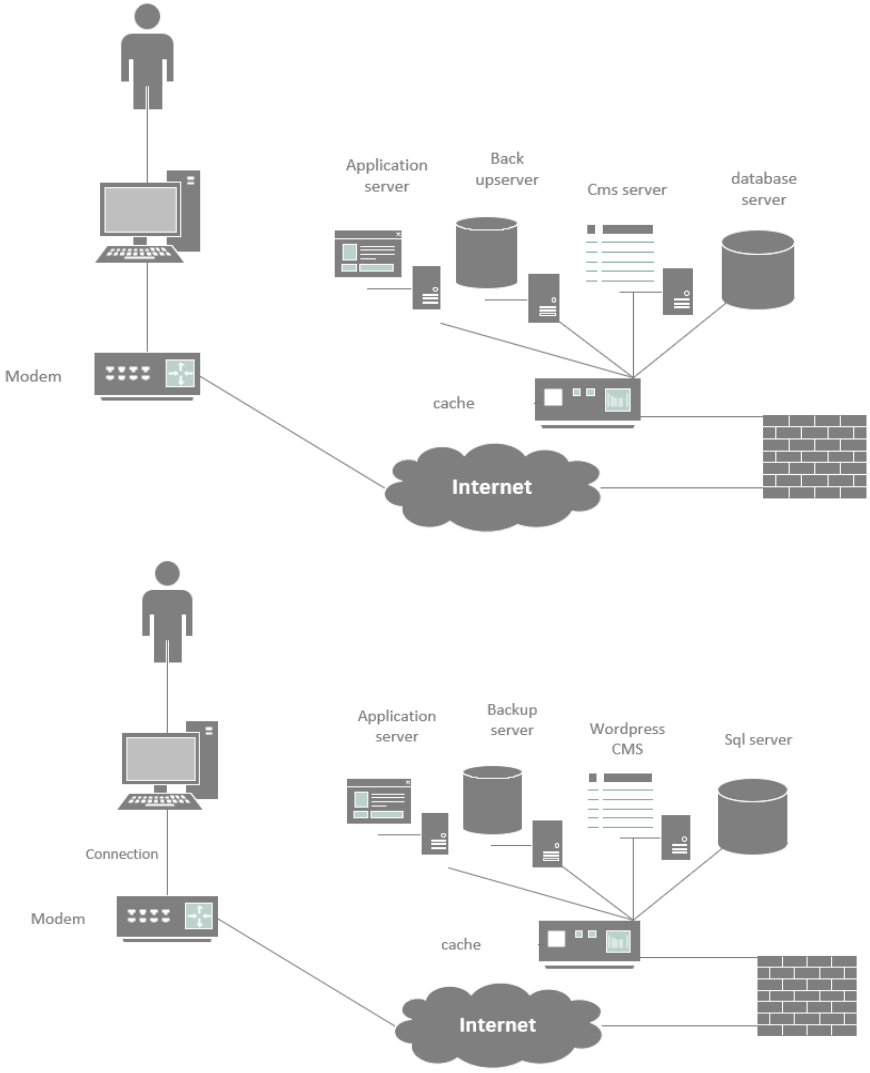
Case 44: Delete Message Board Reply
Actor Admin
User will delete their reply to a user's message.
Risk: Low

Trace Matrix

ID	Name	ID	SR1	SR2	SR3	SR4	SR5	SR6	SR7	SR8	SR9	SR10	SR11	SR12	SR13	SR14	SR15
		Name	Landing Page	Photo Carousel	Sign-Up	Login	Calendar	Announcement Page	Donation Page	Mentor Connection System	Approval System	Admin Control Panel	Job Board	Discussion Board	Message Board	System Backup	Email Blast
		Count	1	3	6	1	3	3	3	4	2	5	3	6	6	1	3
1	Add Student	1			x												
2	Modify Student	1			x												
3	Delete Student	1			x												
4	Add Alumni/Mentor	1			x												
5	Modify Alumni/Mentor	1			x												
6	Delete Alumni/Mentor	1			x												
7	Account Approval	2									x	x					
8	Account Rejection	2									x	x					
9	Log in	2	x			x											
10	Back Up Website	1														x	
11	Student Search	1								x							
12	Mentor Select	1								x							
13	Mentor Match	1								x							
14	Send Email	1								x							
15	Add Job Post	1											x				
16	Modify Job Post	1											x				
17	Delete Job Post	1											x				
18	Add Donation	1							x								
19	Modify Donation	1							x								
20	Delete Donation	1							x								
21	Add Announcement	1						x									
22	Modify Announcement	1						x									
23	Delete Announcement	1						x									
24	Upload Photos	1		x													
25	Modify Photos	1		x													
26	Delete Photos	1		x													
27	Create Calendar Events	1					x										
28	Modify Calendar Events	1					x										
29	Delete Calendar Events	1					x										
30	Add Email Blast	1															x
31	Modify Email Blast	1															x
32	Delete Email Blast	1															x
33	Discussion Board Creation	1												x			
34	Modify Discussion Board	1												x			
35	Delete Discussion Board	1												x			
36	Add Reply in D. Board	1												x			
37	Modify Reply in D. Board	1												x			
38	Delete Reply in D. Board	1												x			
39	Create Message Board	1													x		
40	Modify Message Board	1													x		
41	Delete Message Board	1													x		
42	Add M. Board Reply	2										x			x		
43	Modify M. Board Reply	2										x			x		
44	Delete M. Board Reply	2										x			x		

Initial Architecture Considerations

Shown below is a chart that describes how the system will work; starting from the servers and the application, which will be connected to the internet, to the receiving modem and laptop/desktop to the end user (student/alumni/faculty).



Risk Analysis

Analyzing risk is designed to help businesses assess their current risk profile and effectively implement CIS controls to meet reasonable security. Risk analysis also gives insight on the factors that could deter the system meeting the specified goal. Also, assigning a risk as high or low helps guide which incidences take priority and need to be addressed immediately. This helps your organization & prioritize your implementation of specific CIS Controls. Below are the steps in assessing a risk:

1) Understand and document if your current implementation is reasonable given your risk.

2) Likelihood of the risk

3) Potential impact

4) Ways to address the risk

Our group has identified three main risk factors with this system:

- High Risk- If database fails the system would be useless.
- High Risk- Breach of user's information
- High Risk- If students don't take advantage of mentor opportunities the system is useless.
- Low Risk- A moderator who does not supervise and report problems of inappropriate behavior.

As mentioned above, the high risks we have identified take precedence. We will ensure that user information is secure, and it is up to the administrator and the users to use the system to meet the specified goal. Otherwise, our system will not hit the target.

Team Charter

Our team goal is to work efficiently and effectively as a group to create a customized platform that meets our clients' needs and wants. To accomplish this goal, our team meets at least once a week in-person, to go over individual status reports and assess our progress. Our team meetings are scheduled for every Thursday, during our in-class time. Typically, we have between 10AM and 10:45AM to conduct out meetings. We decided on this meeting time as a group during the first in-person class session. For any last-minute changes or announcements regarding our meetings, we inform out teammates via a group text message.

Our team decided, during our first meeting, to assign each individual project to work on for the next week. This is the most efficient way to ensure each team member is doing equal work. We assign tasks for each person to work on, and during our in-person meetings we discuss these projects.

The in-person meeting time is used to pinpoint progress and discuss next steps. We conduct this meeting by stating the individual work we have completed, and then we discuss what needs to be done next and by what date and time. After we have this group discussion, if time permits, we continue our individual projects until the end of scheduled class time-10:45AM. We document the decisions via Microsoft teams, stating what each person has accomplished and what each person is currently working on. Microsoft Teams is our main form of communication.

Along with our in-person meeting time, Zu Ming has a Microsoft Teams page where we communicate concrete ideas, share, and edit files. We also use a group message to communicate quickly as a team when there is a simple question or idea. To communicate with the client, we are also using the Microsoft Teams platform. Dr. Barker has created a Microsoft Teams group for us to utilize when presenting to the client. During presentations to the client, we will most likely use PowerPoint for all our presentation material and visuals. To communicate with our instructor, depending on the needed depth of the communication, we will speak with Dr. Barker in class, over email, or via Microsoft Teams.

Our team has focused on cultivating an inclusive environment. Each member is empowered to discuss their ideas and to listen to others. To build consensus, we discuss all paths, and then take a vote and the majority will decide. Typically, decisions are made in the in-person group meeting. It is much easier to make a group decision when all team members are present. We give every group member a time to speak, and then we discuss. As for conflicts, we decide to go with the majority. If there are conflicts, we do not feel we are fit to handle, we will bring them to the attention of our instructor-Dr. Barker.

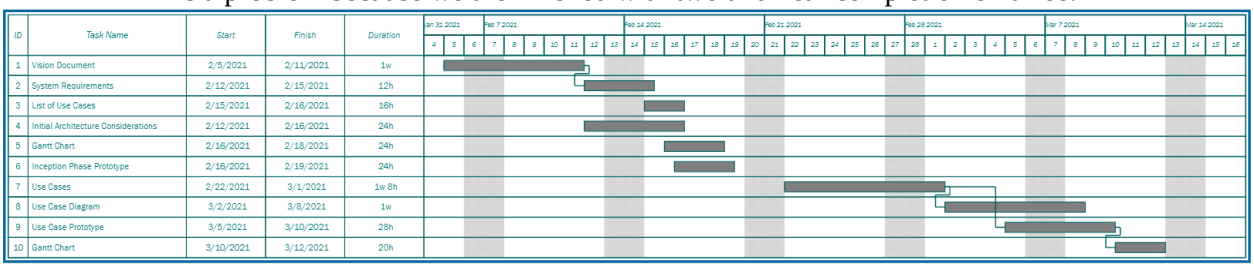
As I touched on above, we are utilizing a group in Microsoft teams as our project repository. All documents and discussions are stored in the file section of the platform. The "posts" section of Microsoft Teams is the section that is used for documenting communication.

Gantt chart

The Gantt chart is a vital tool that our team will use to keep track of all the tasks that we will complete during "COBweb"s iteration 2 and iteration 3 stages. However, our team will need to make an updated Gantt chart for future iterations because this one is only focused on iteration two and three which

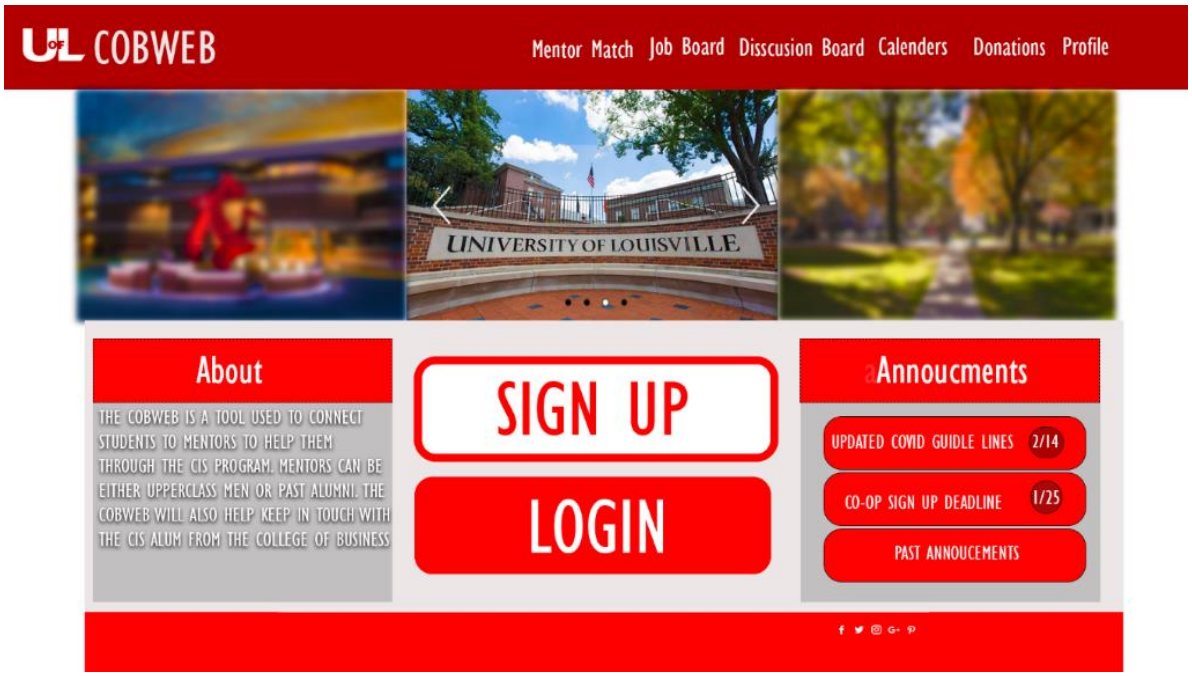
is a problem because we are finished with two and near completion on three.

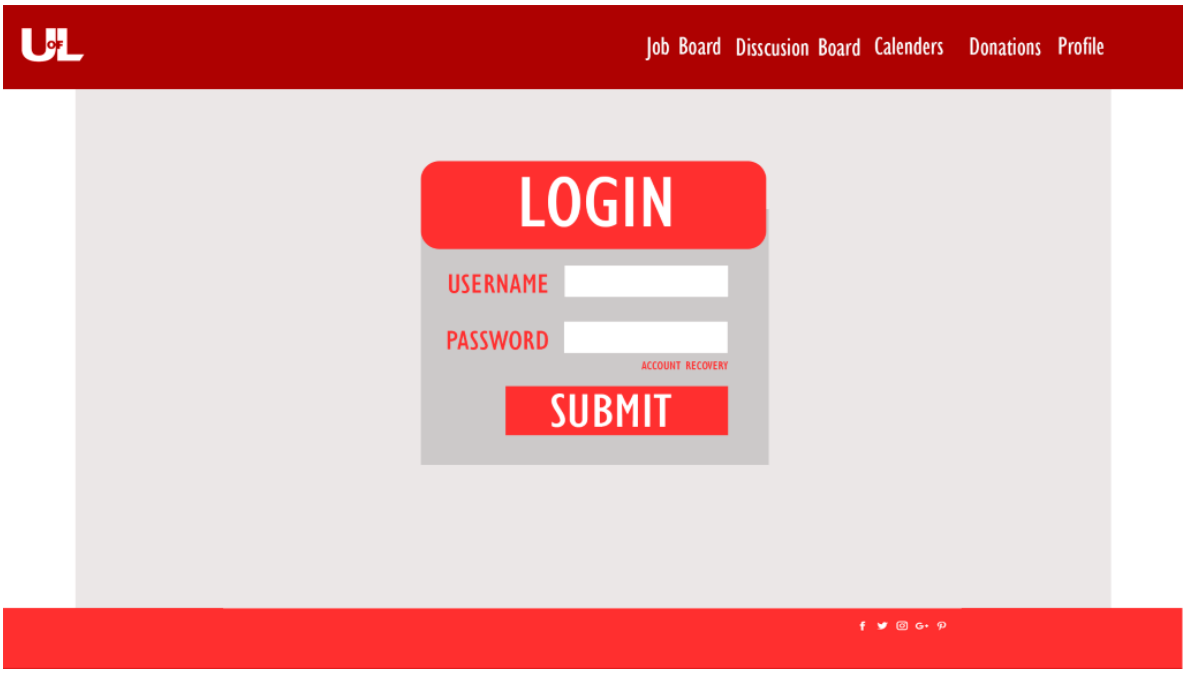
ID	Task Name	Start	Finish	Duration
1	Vision Document	2/5/2021	2/11/2021	1w
2	System Requirements	2/12/2021	2/15/2021	12h
3	List of Use Cases	2/15/2021	2/16/2021	16h
4	Initial Architecture Considerations	2/12/2021	2/16/2021	24h
5	Gantt Chart	2/16/2021	2/18/2021	24h
6	Inception Phase Prototype	2/16/2021	2/19/2021	24h
7	Use Cases	2/22/2021	3/1/2021	1w 8h
8	Use Case Diagram	3/2/2021	3/8/2021	1w
9	Use Case Prototype	3/5/2021	3/10/2021	28h
10	Gantt Chart	3/10/2021	3/12/2021	20h



Inception phase prototype

This is our prototype for the “COBweb” website. The picture below shows the proposed layout for the landing page which includes an announcement tab, a photo carousel, and a login/ signup button. The prototype was made in photoshop and will be made using one of the many WordPress templates. The second picture is a mockup layout for the login page where users will login to their accounts. This prototype is to give a brief idea of what the final product will look like.




Job Board
Disscusion Board
Calenders
Donations
Profile
LOGIN
USERNAME
PASSWORD
ACCOUNT RECOVERY
SUBMIT