

Group 4 Zu Ming

Iteration 2

Revision History

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

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

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
<i>Undecided CIS student</i>	<i>This user will be welcomed by potential mentors by selecting CIS major in a filter.</i>	<i>This user will look at profiles of alumni/upperclassmen/fellow undecided CIS students and will communicate using discussion boards/individual messaging/job posting.</i>	<i>The Manager oversees their interest.</i>
<i>UofL Alumni</i>	<i>A past UofL student that has graduated.</i>	<i>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.</i>	<i>The Manager oversees their interest.</i>
<i>UofL Current CIS student (upperclass men)</i>	<i>A student currently enrolled in the CIS program closer to graduation.</i>	<i>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</i>	<i>The Manager oversees their interest.</i>

		<i>UofL specific (UofL students/alumni/faculty ONLY).</i>	
<i>Admins</i>	<i>An employee that manages the website's announcements, Calendar and sign-up approval.</i>	<i>These users will be primarily using the website to send out information using the alert system. Update calendars and approve site sign up requests.</i>	<i>Employee or manager.</i>

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/alumnus 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 co

			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 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							

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:									
	ROI:	1401%							
NPV:									
	NPV:	\$ 578,734							
Break Even									
	Break Even	0.41							

Use Cases and Risk Analysis

Case 1: Student Enroll

Actor: CIS student

Users will enroll with Ulink ID and Password. CIS majors will be automatically approved.

Case 2: Alumni/Mentor Enroll

Actor: Alumni/Mentor

Users will create a normal account using a normal Email/Password.

Case 3: Account Approval

Actor: Administrator

Users will approve accounts from non-UofL emails (alumni/professionals)

Case 4: Student Search

Actor: CIS Student

Users will use search features to match with other students, alumni and mentors

Case 5: Send Email

Actor: CIS Student / Alumni

Users will email others with given matched user.

Case 6: Add Job Post

Actor: Alumni

User will post jobs that they have available in their company.

Case 7: Donation

Actor: Alumni

User will donate money to the CIS program

Case 8: Announcement

Actor Administrator

Case 8: User will announce upcoming events in an announcements page.

Case 9: Upload Photos

Actor Administrator

User will upload photos to the photo carousel.

Case 10: Create Calendar Events

Actor Administrator

User will add events/notices to a calendar.

Case 11: Email Blast

Actor Administrator

User will send emails to student/alumni users.

Case 12: Remove Job

Actor Administrator/Alumni

User will remove job posting after its fulfilled/expired

Case 13: Discussion Board Creation

Actor Student/Alumni

User will create a discussion board for students to discuss topics.

Case 14: Message to Dr. Barker

Actor Student/Alumni

User will use message board to talk to Dr. Barker/ Website head about questions/concerns.

		ID	SR1	SR2	SR3	SR4	SR5	SR6	SR7
		Name	Account Sign Up	Account Verification	Search/Filter	p2p communication	Job Board	venmo/paypal	Administrator Tools
ID	Name	Count	2	5	2	1	5	1	6
UC 1	Student Enroll	2	x	x					
UC 2	Alumni Enroll	2	x	x					
UC 3	Account Approval	1		x					
UC 4	Student Search	3		x	x	x			
UC 5	Matching Email	2		x	x				
UC 6	Add Job Post	1					x		
UC 7	Donation	2					x	x	
UC 8	Announcement	1							x
UC 9	Upload Photos	1					x		
UC 10	Create Calendar Events	1							x
UC 11	Email Blast	1							x
UC 12	Remove Job	2					x		x
UC 13	Discussion Board Creation	2					x		x
UC 14	Message to Dr. Barker	1							x

Assessing and Analyzing Risk

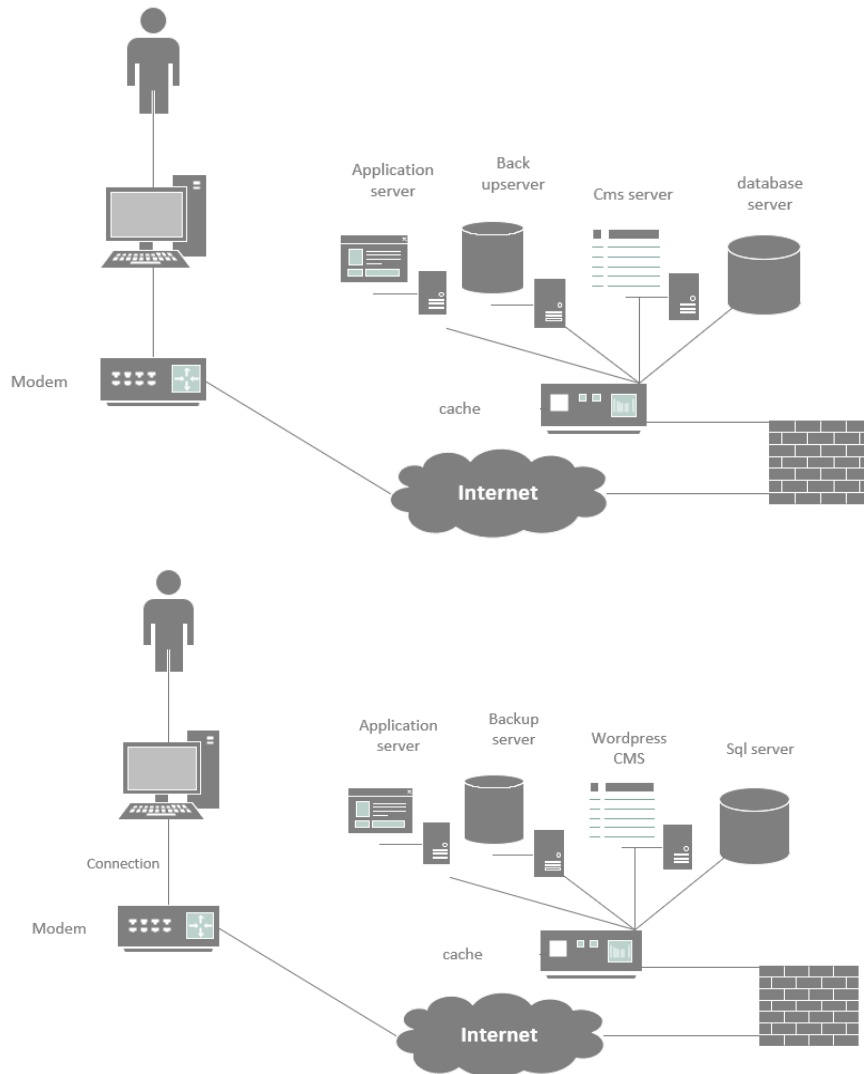
Analyzing risk is designed to help businesses assess their current risk profile and effectively implement CIS Controls to meet reasonable security. This helps your organization & prioritize your implementation of specific CIS Controls. Below are the steps in assessing a risk:

- 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

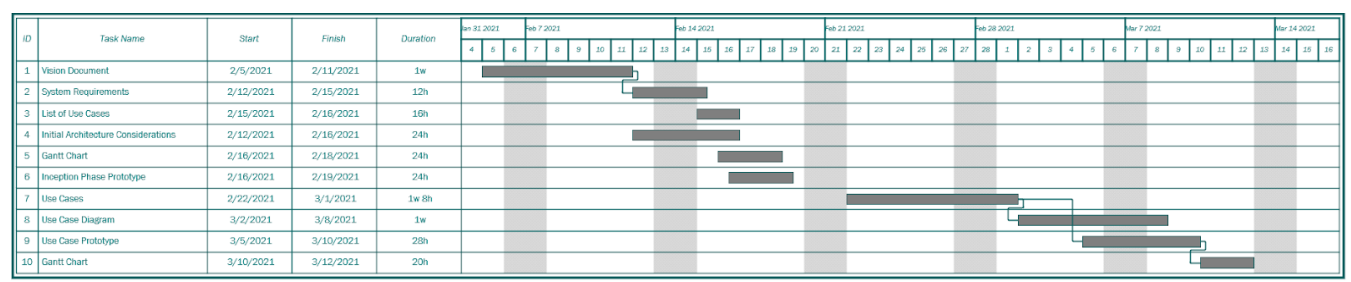
Our group has identified three main risk factors with this system:

- High Risk- If database fails system would be useless
- Low 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

Initial Architecture Considerations:



Gantt Chart:



Inception phase prototype:

Landing page:

Login page:



LOGIN

USERNAME

PASSWORD

[ACCOUNT RECOVERY](#)

SUBMIT