

Customer Loyalty System

CIS 3343

PoinTech

Contents

Identification of Team Members	1
Team Name	2
.....	2
Team Logo	3
Team Communication Plan	4
Team Roles/Responsibilities Matrix.....	5
Confirm Client Letter.....	6
Client Organization Chart and History/Background	9
Project Selection Analysis	10
Current System Description & Problems	13
Initial Project Work Breakdown Structure & Gantt Chart	14
PERT Diagram.....	15
.....	16
Client Organization Objective List.....	25
Client Application (System) Objective List	26
Data Gathering Goals	27
Data Gathering Methods	28
Data Gathering Questions.....	29
Data Gathering Results	32
STROBE Analysis.....	36
Samples of Records	40
Complete Requirements List.....	42
Critical Requirements Analysis Objective Tree	43
Current Business Rule List.....	44
Current Business Activity List.....	45
Current Event Response Table.....	46
Current System Data Flow Diagrams	47
Client SWOT Analysis	48
Systems Proposal with at least 2 or 3 options	49
Systems Proposal Presentation.....	58
Updated Listing of Authors per Deliverable.....	68

Current Systems Study with References.....	70
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Identification of Team Members


1. Tyler Therriault
2. Luis Rodriguez
3. Hamza Saeed
4. Jaime Rodriguez
5. Alec Villarreal
6. Christine Steinhauer
7. Vijay Kolla



Team Name

PoinTech

Taxable Entity Search

 Business Name PoinTech was not found.

Search

Tax ID

Use the 11-digit Comptroller's Taxpayer Number or the 9-digit Federal Employer's Identification Number.

OR

Entity Name

PoinTech

OR

File Number

Use the File Number assigned by the Texas Secretary of State.

☐

I'm not a robot



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 Search

 Reset



Team Logo





Team Communication Plan

1. The team's primary method for communication will be through a Microsoft Teams channel. We will have regular team meetings on Wednesday to review status and deliverables.
2. The team will contact the client as needed by phone (281) 599-3303 or by email info@cellardoorkaty.com
3. Client Name – The Cellar Door



Team Roles/Responsibilities Matrix

Manager – Tyler Therriault

Assistant Manager – Luis Rodriguez

Client Relations Manager - Vijay Kolla

UI Designer - Alec Villarreal

System Analyst - Hamza Saeed

Lead Programmer - Jaime Rodriguez

Client Relations – Christine Steinhauer



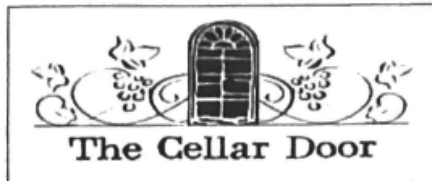
Confirm Client Letter



Fall 2022 – 2023 Semester
University of Houston

CIS 3343 (Information Systems Analysis & Design)

Ron Holsomback
The Cellar Door
281-599-3303
info@cellardoorkaty.com
829 Mason Rd #280,
Katy, TX 77450



I, Ron Holsomback (owner) agree to work with PoinTech (UH Project Team Name) for the next two academic semesters to develop a project for my company.

Brief Project Description: (SQL Server will be the database)

Our project aims to take The Cellar Door's manual system and automate their rewards program so the company can increase visibility through customer metrics of the company's performance. This project would reduce the task load for the winery and expand the business' efficiency in storing and collecting data for their rewards program. This would also allow them to create dashboards to implement and visualize critical metrics and KIPs (Key Performance Indicators) centered around customer engagement.

Client data will only be used for the purpose of CIS 3343 & CIS 3365 project.


Owner

9/9/22
Date


Project Manager (UH Team)

9/9/22
Date

Project Team Members:

1. Tyler Therriault
2. Luis Rodriguez
3. Vijay Kolla
4. Jaime Rodrigues
5. Hamza Saeed
6. Christine Steinhauer
7. Alec Villarreal





Client Organization Chart and History/Background

The Cellar Door is a family-run winery whose doors opened in 2010 by Ron Holsomback and his brothers Don and Andy. The winery produces about 12-18 of its wines and offers guests about 100 other bottles from popular regions. It is the cellar door's goal to have their customers be able to sit down and relax while experiencing their wines. They offer a wine club loyalty program that has over 300 members. This wine program is integral for them because it keeps the customers returning and helps develop that long-term relationship between the winery and their customers. The Cellar Door has to complete a lot of manual work to keep up with their rewards program, such as transporting data from paper sources to excel and crunching numbers by hand to find their customers' total rewards (stars). PoinTech's goal is to take the company's manual system and automate its rewards program so the cellar door can increase visibility through customer metrics of its performance.



Project Selection Analysis

After being assigned into our respective groups all the members decided to hold our first meeting in the Sugarland campus with the goal of consolidating a group identity and the direction of the overall project. In our first meeting we came up with our company name, logo, and additional information regarding communication and identification of team members. We concluded wanting to build rewards point system (a CRM) for our future clients and with that idea in mind we decided to start reaching out to clients that we thought which would work out.

The 3 main categories that we were interested in was service, food, and drink locations. Our first location was going to Remo's BBQ a local restaurant in the Missouri city area which has recently started to gain more popularity in the local community. After calling and trying to reach out to them in various means we realized that they were not the ideal business for us to work with due to communication hassles. Then we moved on to our next potential client which was Kim's teahouse a local Boba shop in the katy area which has been the local go to spot for many young adults. Christine happened to have a friend who worked at the store and was able to talk to the owner and we obtained his email through her. Vijay immediately reached out through email wanting to schedule a meeting ASAP since the deadline was approaching.

Noticing that Kim's was not available to have a meeting anytime soon Luis and Alec reached out to a Sailing charter company and a skate shop respectively. Alec heard back from the skate shop saying that they were not interested in implementing any systems currently. Luis on the other hand was able to have a meeting with the manager with Sackett/Bay Area sailing school who agreed to partner with us. The sailing school is a company focused on offering their customers sailing training and certification courses. They also provide rental charters for licensed personnel and such. They asked us to build a CRM program meant to track and maintain customer information regarding certification verification and voucher usage information. During the initial meetings we repeatedly asked if they had an online database that is used to maintain this information and at first, they kept saying yes.

Hearing that they fit the criteria that was given to us regarding finding a valid client we approached the professor and after working out the project description and everything we were given the go ahead to get the NDA signed by the client and proceed onwards with the course of the project. However, that is when we were finally told the truth by our client that they do not have an online data base out of fear of getting hacked and that we are going to have to find a new client. On the same day Vijay contacted Ara's barbershop a local barbershop in katy and talked to the manager who responded with the intention of having a meeting with him in person. After



talking to the client, he seemed receptive and was wanting us to build a CRM system which maintained customer rewards information to better help market and maintain customer retention.

After validating the client with the professor and providing all necessary information we were approved and were given the green light to get the NDA signed. However, due to it being Labor Day and the client's business being closed on Monday we were unable to physically meet with the client to get the NDA signed. After a few days passed, Vijay kept trying to maintain contact with the client urging them to sign the NDA after providing all the information but that is when the client backed out saying that he doesn't know what he will be having to do for this project even after being presented with all the project information and a thorough explanation of what is required of him for the course of this project.

Since that client was a no go after discussing in class Christine mentioned to us that the former winery, she worked in had a rewards/membership system that was maintained by hand and that they were interested in finding a digital alternative to the problem. With that being the case, she was able to get a meeting with the manager and was finally able to have them agree with a collaboration and after that being done Vijay and Christine created a client and project description regarding the project. At first the professor rejected the client, assuming that they have a proper system of maintaining membership records, but we showed her that the link to apply as a member took the end user to a pdf which they would have to fill out and take to the winery. After that the professor approved our project description and we were able to get the NDA signed and delivered.

Reasons for why we picked this client is that they are a local staple to the community. They have been in that area for quite a bit of time and have built up a solid customer base but due to that age many of the workflows they have are all quite dated, and they were extremely excited with our offer to be able to transition at least a few of those workflows to a newer manner. Another reason for choosing this client was that due to one of our members being a former employee we already have good rapport with them, and the communication aspect is quite good and not sporadic.

Regarding the selection of the project, it came down to the fact that us as a group were wanting to build a CRM style system and the client themselves were wanting to find a newer way to maintain their membership system due to it being all over the place. Considering there is an application form which is then input into a google docs form and that is access every time a customer mentioned it made it a tedious task for something that should be quite streamlined.



The value that we believe that we will bring the client is more comfort and membership growth. Having the ability to automatically register customers into the membership program both online and through the store allows for ease of access for customers which in turn incentivizes them to join the program. Our goal is to modernize the workflow that they have and make it easier for them to do their necessary work which will empower them with the ability to spend more time providing a better service to the customer overall.



Current System Description & Problems

Problem Statement

Create a system-generated account for new rewards members. The Cellar Door Winery rewards members with discounts on merchandise, food, wine, and events for a monthly fee.

Issues

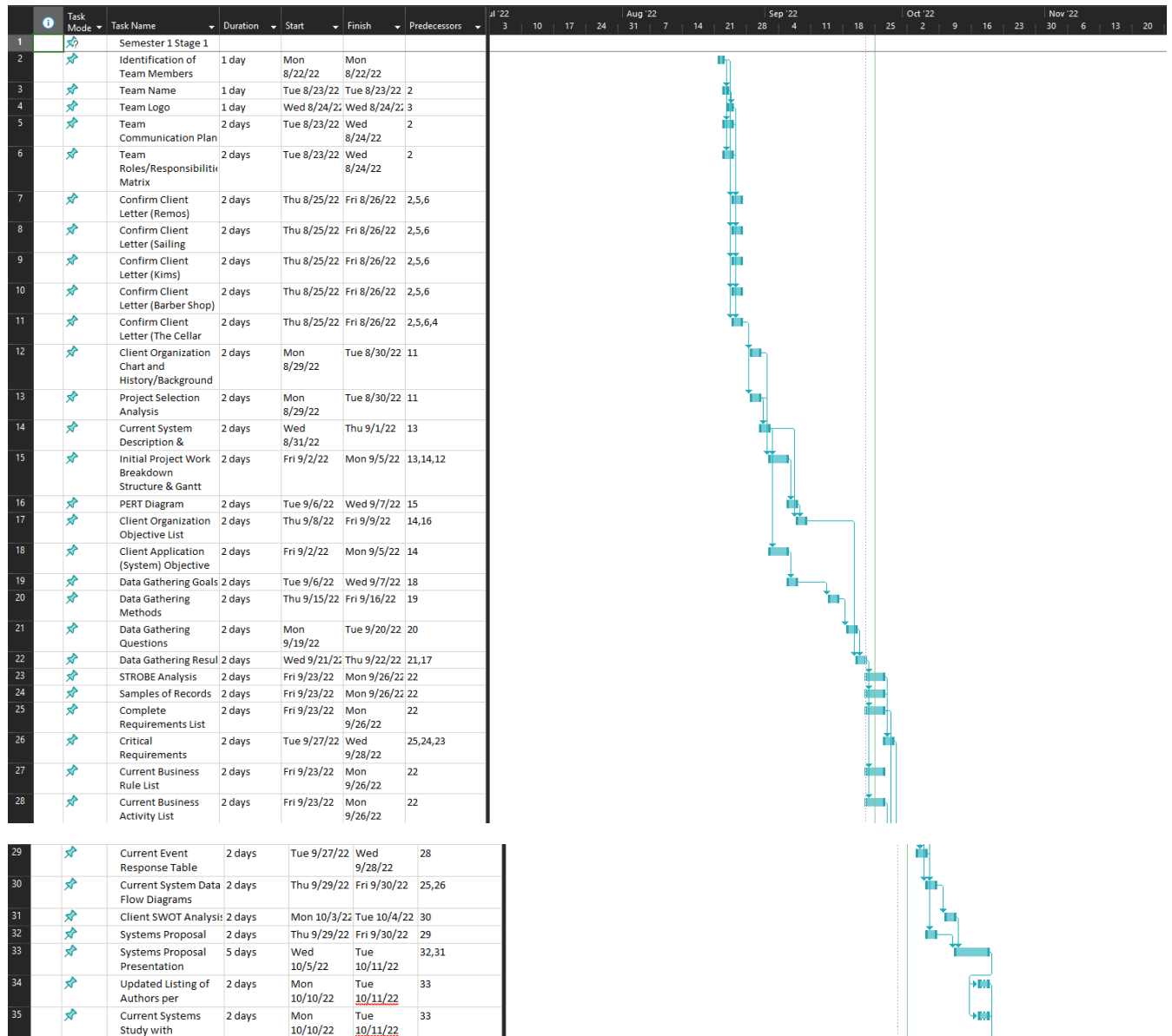
The Cellar Door Winery's existing rewards membership program is manual. In the current process, the new member completes the member application on their computer, prints it out, and takes it to the winery in person. After the application is given to one of the Winery employees, they manually type it into an excel spreadsheet. All of the rewards member information, including name, contact information, and if they redeemed their wine is collected in the spreadsheet.

Objectives

The Cellar Door would like to automate the process by allowing new members to complete their membership applications on the website, which will automatically be stored in a database. One goal is for the Cellar Door employees to easily be able to pull up a member's account on the computer to view their information.

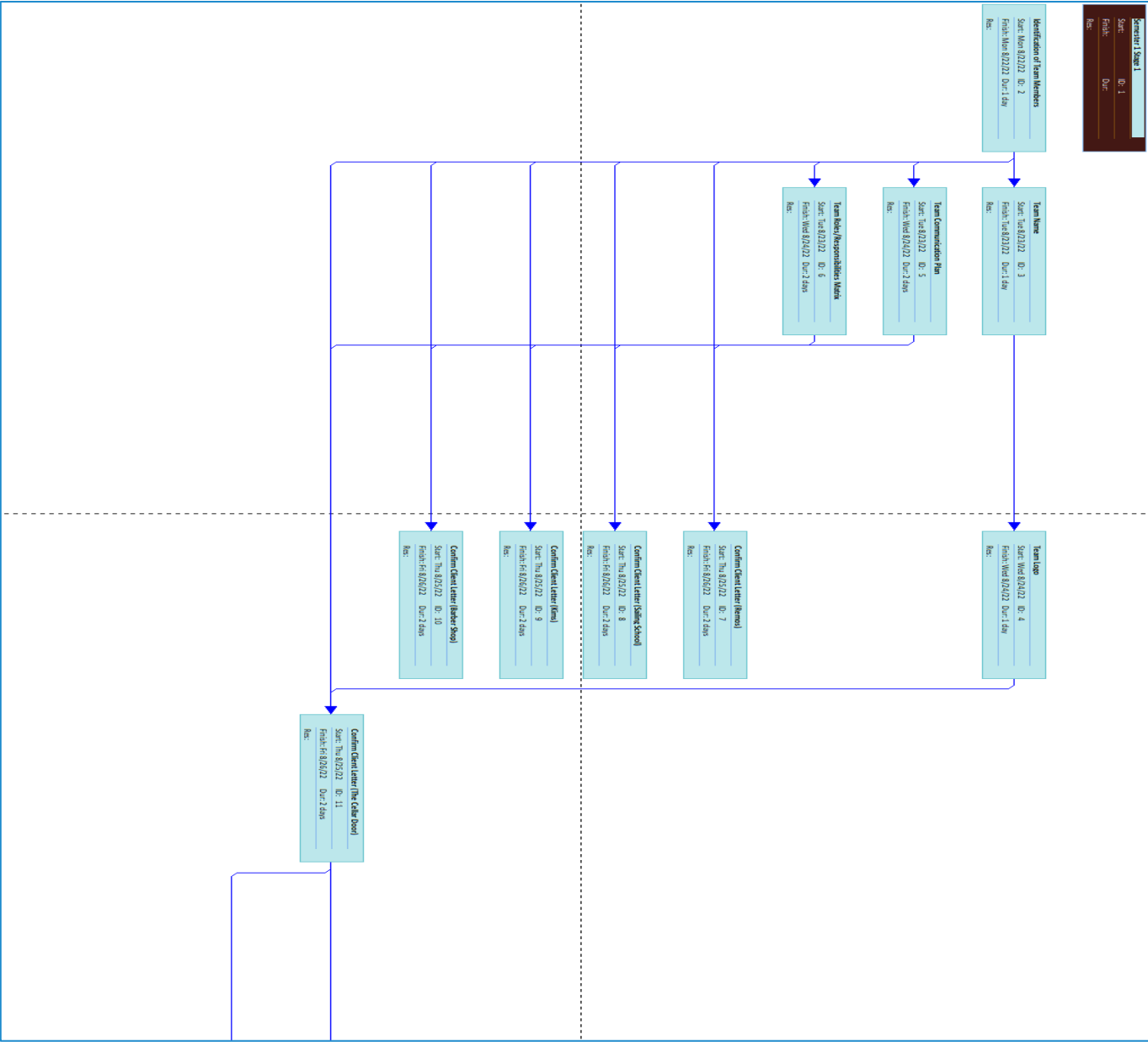


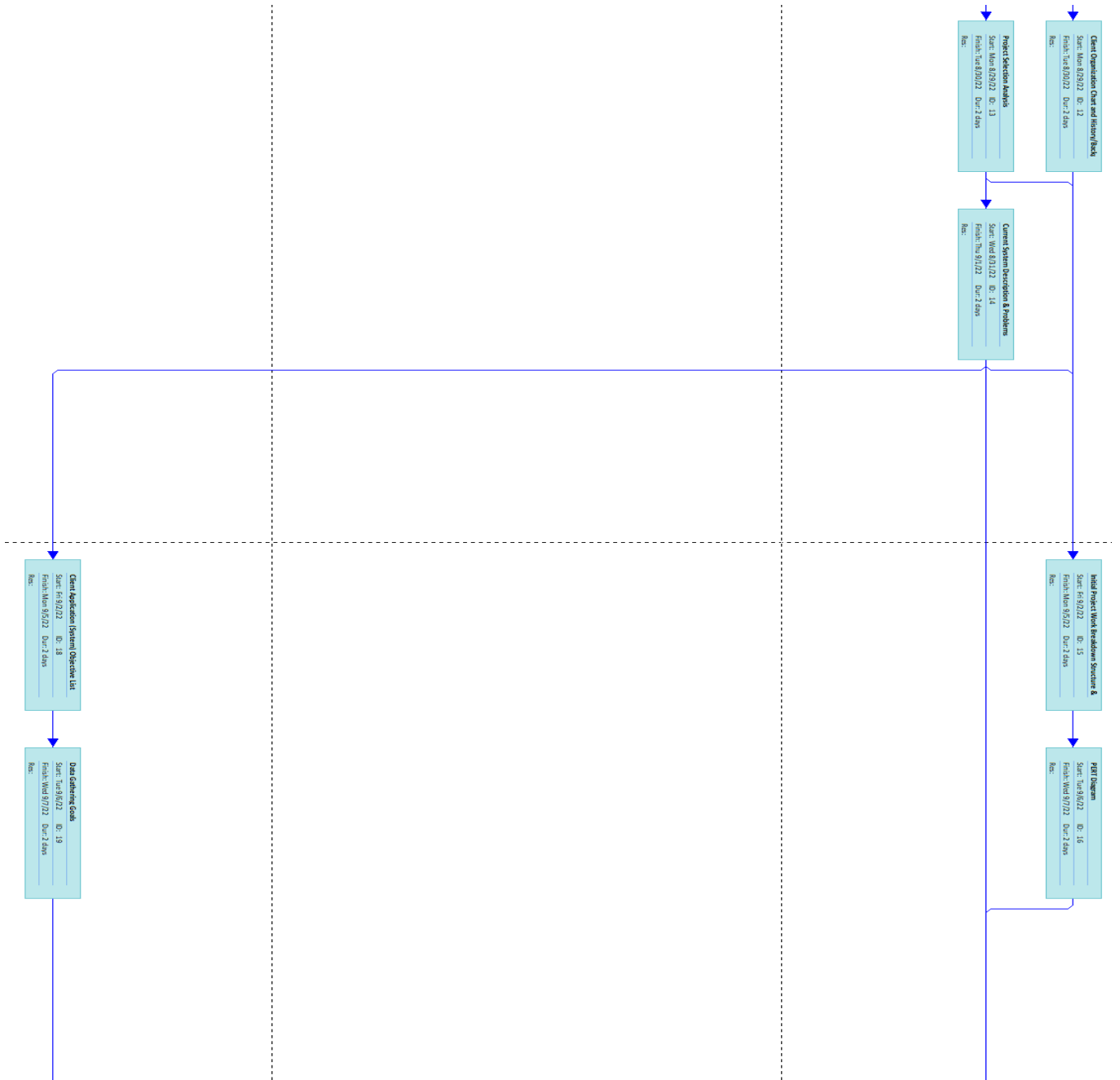
Initial Project Work Breakdown Structure & Gantt Chart





PERT Diagram







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Data Gathering Method			
Start	Thu 8/17/22	0: 20	
Finish	Fri 8/18/22	0: 2 days	
Rec:			

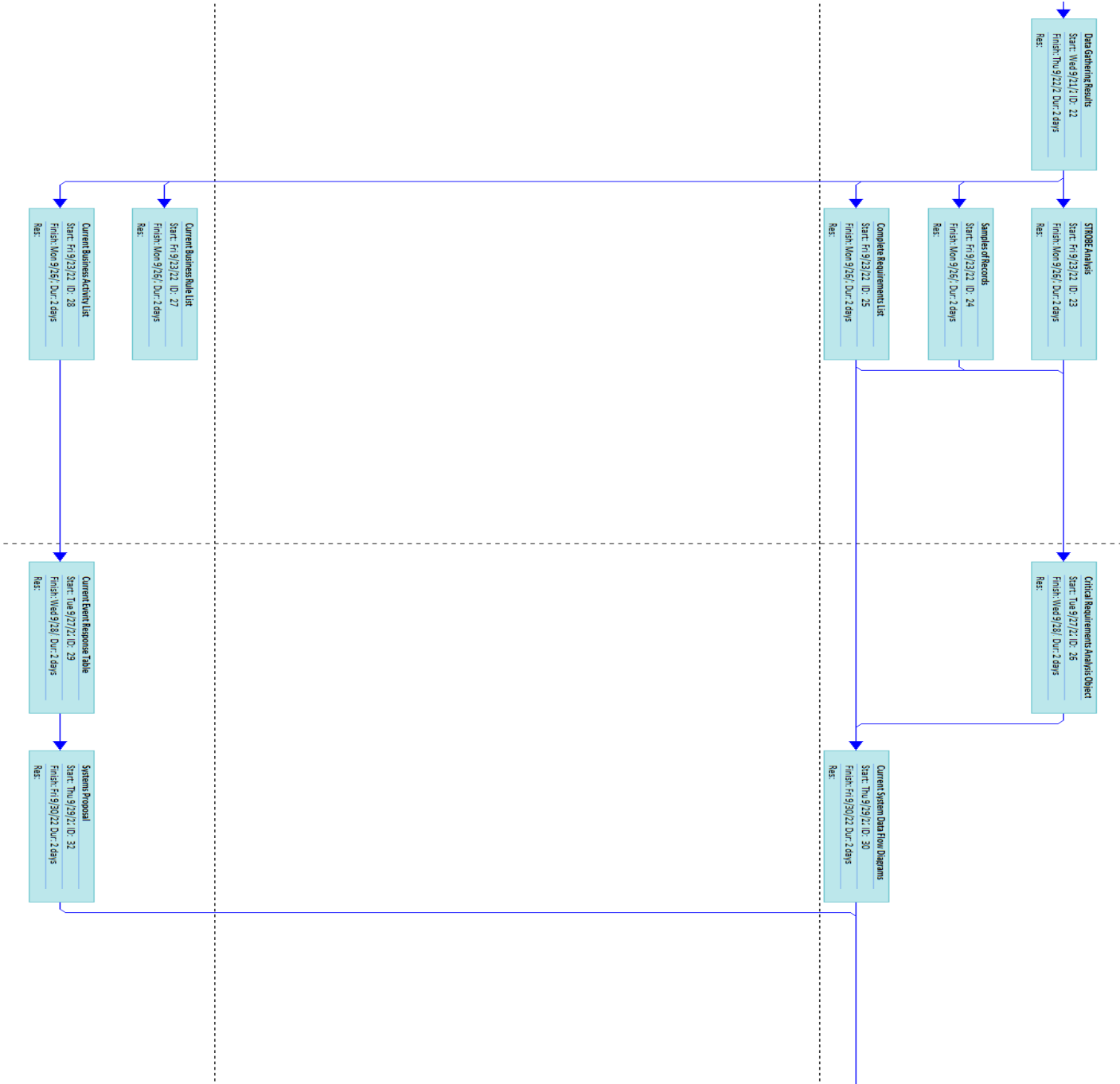
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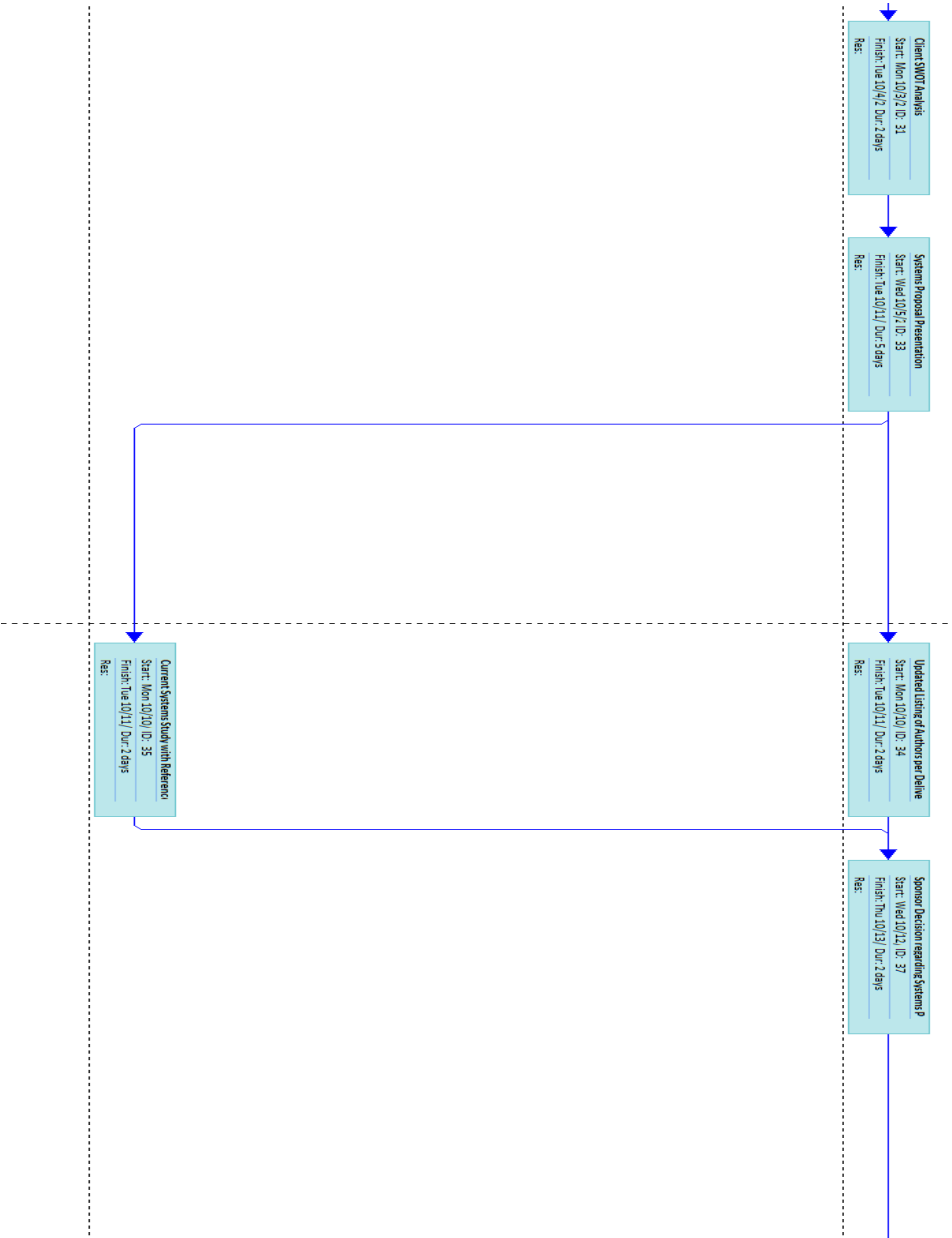
Data Gathering Questions			
Start	Mon 8/19/22	0: 21	
Finish	Tue 8/20/22	0: 2 days	
Rec:			

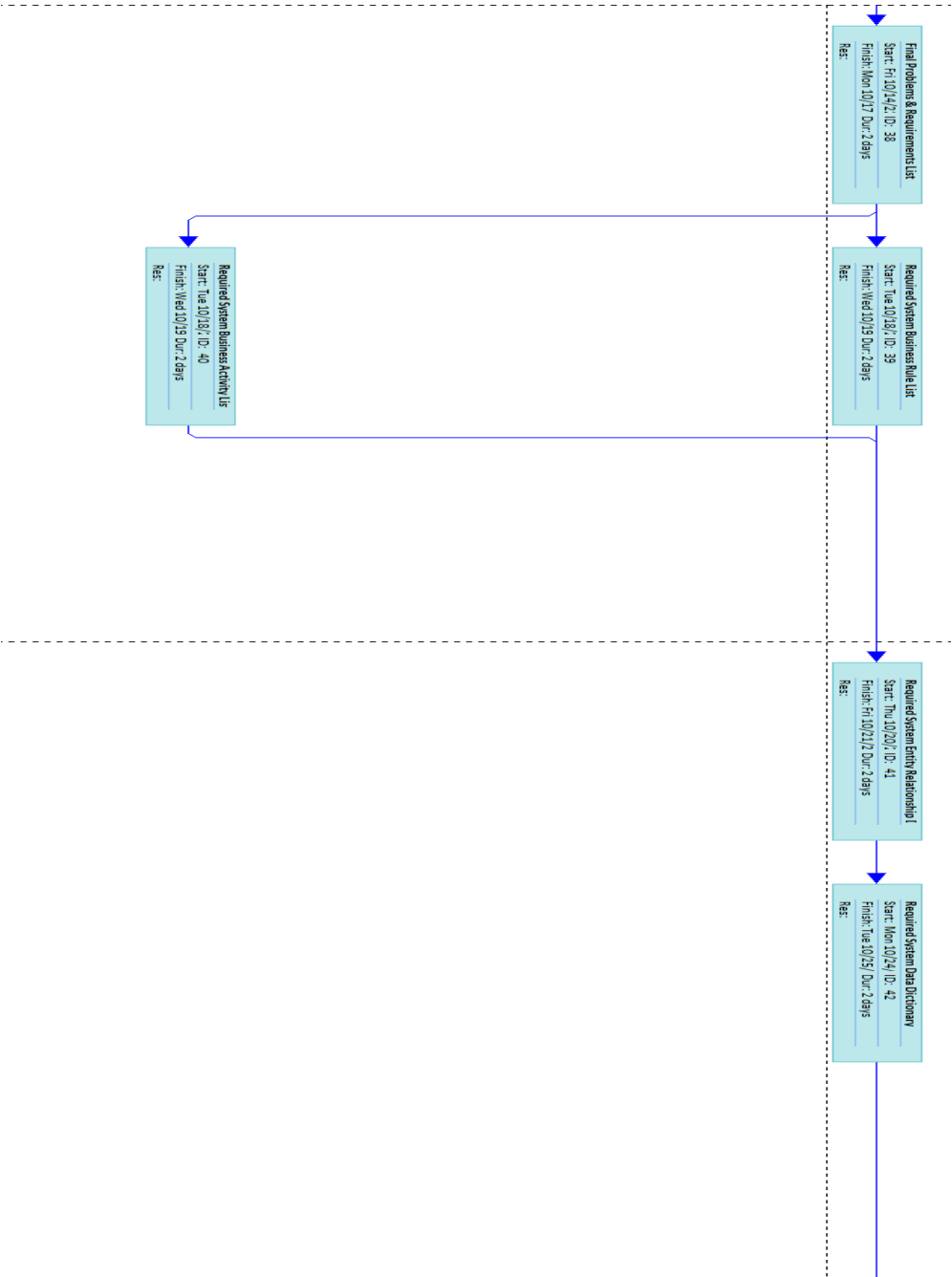
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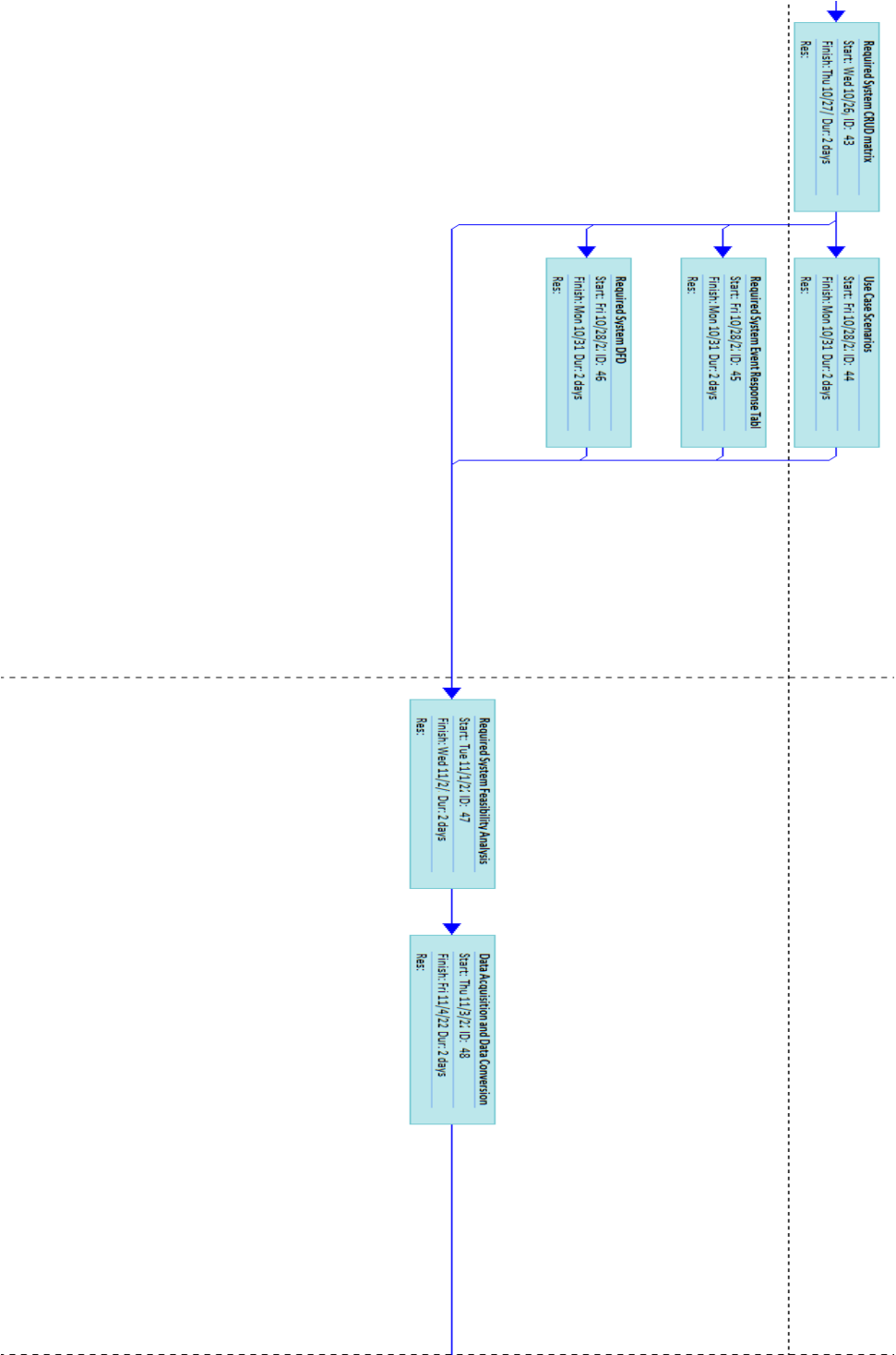


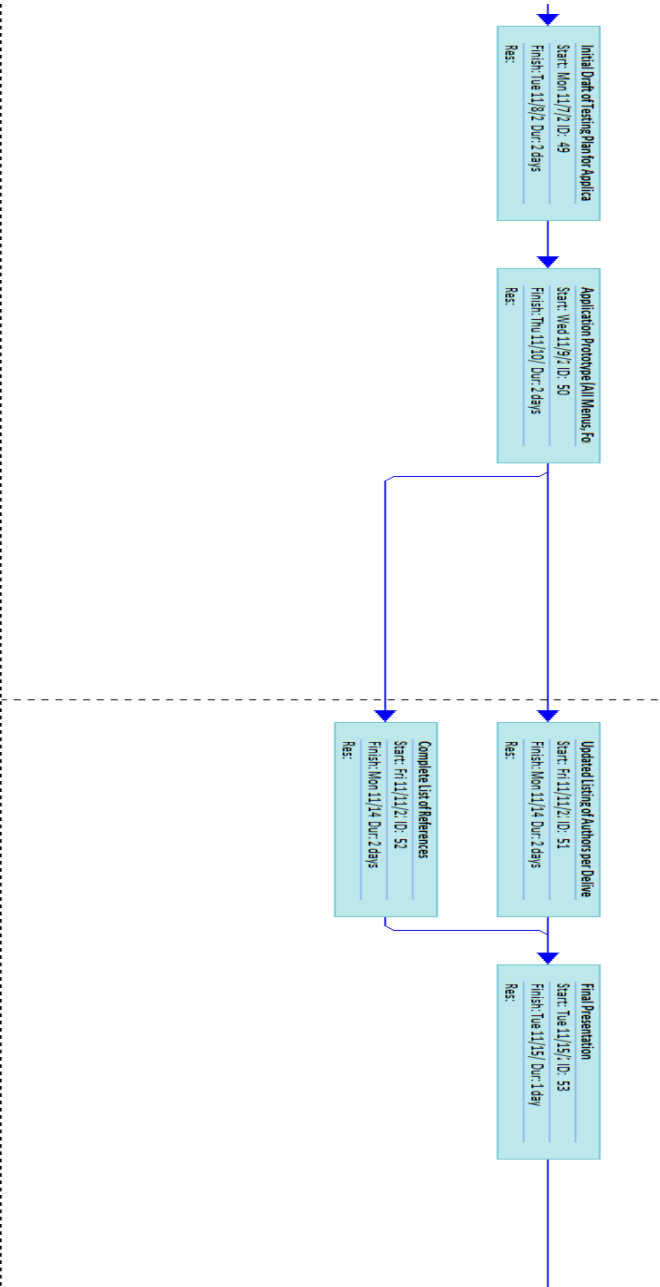
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Client Organization Objective List

1. Our client, The Cellar Door, wishes to continue providing over 300 different bottles of wine from all over the world as well as the in-house wine that they make. Along with serving wine, they have a wide variety of delicious foods that they pair with their wines with the hopes of adding more to their menu of foods and wine in the years to come.
2. The client wishes to invest time and energy into further retaining and expanding their clientele by continuing to uphold the great relaxing atmosphere and service that the customers love.
3. Our client aims to add more members to their wine club and with the help of the system, we plan to implement it into the company both our client and we expect the system to help grow their clientele.
4. Our client wishes to continue using the system that we are creating for the near future given that it works as they desire to better organize their clientele.
5. Our client has hosted many events in the past at their winery but in recent times they have not had as many as they would like in the past few years. They wish to hold more events such as wine tastings, wine festivals, and live bands to attract more clientele.



Client Application (System) Objective List

To...

- Decrease time taken transferring information.
- Implement a rewards point system for redeeming various types of things (e.g. Wine, Food, Tastings, etc.).
- Attract new customers.

In A Way That...

- It is better than writing on paper and transferring to a computer the business is currently doing.
- Helps customer retention.
- Will yield more sales for the business.

So That...

- Customer costs go down by at least 25 percent.
- Profits are increased by at least 35 percent.
- The business name will be spread around, along with building a good public image.

And Can Be Measured By...

- The cost it takes by retaining customers through events and other features can be expected to go down from about \$10,000 to \$7,500, over the course of about three weeks.
- Their profits going from about \$2,000 to \$2,700, and possibly even more, over the course of about a month.
- Business exposure chance increasing from a mere 5 to 10 percent, to roughly 35 to 40 percent over the course of about two weeks.



Data Gathering Goals

- Gathering information regarding membership record handling and storing.
- The cons with this current system, and how it could be improved.
- Putting in perspective the information that is given to help understand it.
- Deciding point value rates and reward categories.



Data Gathering Methods

- Interviews
- Questionnaire – Pyramid Type
- Emails
- Client Observations



Data Gathering Questions

1. On a scale of one to ten, how happy are you with your current system, if you already have one?

1 2 3 4 5 6 7 8 9 10 N/A

2. Are there things, you would like to improve with your current system,

True False

3. If so, what are the main improvements you would like to see for this system?

4. How important is the existing system to you if you already have one?

1 2 3 4 5 6 7 8 9 10 N/A

5. How many employees will be interacting with this system?

1 2 3 4 5 6 7 8 9 10 10+

6. How long do you see your business using this system, in terms of years?

1 2 3 4 5 6 7 8 9 10 10+

7. In terms of functionality, do you want the system to be more design focused or more practical focused?

Design Practical

8. Do you prefer a text message, a website, or an app-based rewards program?

Text Message Website App

9. How many different rewards categories would you want? What will those categories be?

1 2 3 4 5 6 7 8 9 10 10+

10. What internal and external resources will be used for this application?

11. Would you prefer your sign-up system to be at store or also have an online component (IE: Sign Up on the website)?

12. How do you want application data to be stored? (Servers, cloud, etc.)



13. How many computers would need to access this system?
14. What is the average rate of people applying to the wine club monthly?
15. When would this system need to be updated again?
16. What is the most common mistake made with your current system, if any?
17. What features of this system are the most important for the users?
18. What risks do you foresee and are you willing to take them?
19. What are your goals for the next 3-5 years regarding the wine club?
20. Who will the end user be?
21. How do you see end users benefitting from this project? (How often will points be accumulated, etc.)
22. Would you want this application to be fully on the employee end or have a customer input side?
23. How do you want points to be accumulated (every dollar spent is one point?)?
24. Would you like the application form to be converted into a sign-up form on the website that is connected to the application (no would mean manual input)?
Yes No
25. Would you like the program to be initially focused on member retention or member growth?





Data Gathering Results

Interview Taken on September 27, 2022

Interviewee: Carter (manager)

Present in interview:

Vijay Kolla

Christine Steinhauer

Tyler Therriault

Alec Villarreal

Hamza Saeed

1. On a scale of one to ten, how happy are you with your current system, if you already have one?

Answer: 7 (out of 10)

2. Are there things, you would like to improve with your current system,

Answer: Yes

3. If so, what are the main improvements you would like to see for this system?

Answer: We would like to switch into a digital system.

4. How important is the existing system to you if you already have one?

Answer: 10 (out of 10)

5. How many employees will be interacting with this system?

Answer: 4-5



6. How long do you see your business using this system, in terms of years?

Answer: More than 10 years

7. In terms of functionality, do you want the system to be more design focused or more practical focused?

Answer: Practical

8. Do you prefer a text message, a website, or an app-based rewards program?

Answer: Either a website or an app-based rewards program

9. How many different rewards categories would you want? What will those categories be?

Answer: 6-7 categories

10. What internal and external resources will be used for this application?

Answer: We would like to use internal resources instead of external resources (as in cloud) since we only have this one restaurant. *

11. Would you prefer your sign-up system to be at store or also have an online component (IE: Sign Up on the website)?

Answer: We prefer an in-store sign up system.

12. How do you want application data to be stored? (Servers, cloud, etc.)

Answer: We want both servers and cloud storage. *

13. How many computers would you need to access this system?

Answer: We would need 2-3 computers.



14. What is the average rate of people applying to the wine club monthly?

Answer: Anywhere from 2 to 10 per month are applying to the wine club.

15. When would this system need to be updated again?

Answer: Not Applicable

16. What is the most common mistake made with your current system, if any?

Answer: Currently, the 2 most common mistakes we find are human error, and that the current system is very slow.

17. What features of this system are the most important for the users?

Answer: Counting of points is the most important feature for the users.

18. What risks do you foresee and are you willing to take them?

Answer: Human error*

19. What are your goals for the next 3-5 years regarding the wine club?

Answer: Not Applicable.

20. Who will the end user be?

Answer: All servers.

21. How do you see end users benefitting from this project? (How often will points be accumulated, etc.)

Answer: The points will be accumulated monthly plus roll-over.



22. Would you want this application to be fully on the employee end or have a customer input side?

Answer: We prefer to only have the employees to use this application.

23. How do you want points to be accumulated (every dollar spent is one point)?

Answer: Monthly + roll-over

24. Would you like the application form to be converted into a sign-up form on the website that is connected to the application (no would mean manual input)?

Answer: Not Applicable (either yes or no is fine.)

25. Would you like the program to be initially focused on member retention or member growth?

Answer: We want to focus on both member retention and member growth.



STROBE Analysis



Figure 1. The Front Entrance to The Cellar Door, 829 S Mason Rd, Ste 280, Katy, TX

Above is the front entrance to The Cellar door (Figure 1). The winery is almost hidden from view because it is in a shopping center that is not facing the view of traffic.

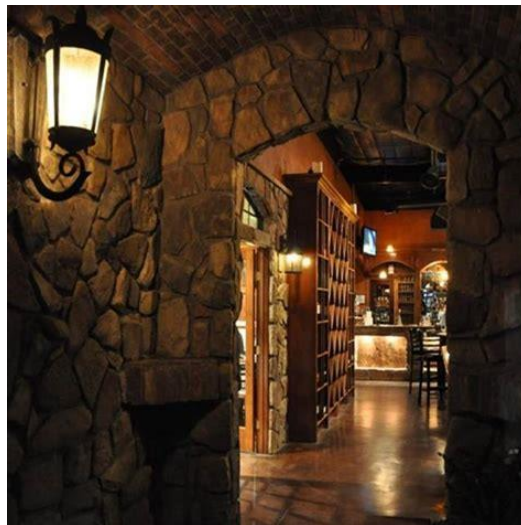


Figure 2. Entry way to the main dining area and bar

When first entering the winery there is an entryway that leads into the winery (Figure 2). This is the first thing the customer sees when walking in. The lights are dim to encourage a relaxing atmosphere.



Figure 3. Main Dining area and bar

The bar and the dining are shown above (Figure 3). The lighting is dim, and the Winery's décor is inspired by Tuscany, Italy. The décor enhances the romantic and relaxing atmosphere of the winery.



Figure 4. Owners Ron and Don

Above are two of the three brothers who started The Cellar Door, Ron (right), Don (left), and Andy (not pictured).



Figure 5. POS System Setup

The POS system is located behind the bar (Figure 5). The monitor in the top left corner of the photo is an Elo POS touchscreen that the servers use to enter orders, run payments, and check the status of the customer's rewards status. The computer that they use on the bottom right is a Dell Vostro 260 mini tower with the following specifications: Intel Core i3 , 3.1 Ghz processor, 4 GB DDR3 RAM, 250 GB Hard drive/ HDMI.



Figure 6. Router Setup in Office

The winery's office is located towards the back of the winery near the kitchen. Figure 6 was taken inside the company's office on the right, there is a Yealink W52P cordless phone system. And on the left is a cisco Linksys E1200 Wireless-N Router. They do not have a specified workstation for their reward system, they just access their current system by logging on through the worker's laptops.



Samples of Records



The Cellar Door

Wine Club Membership Application

829 S. Mason Rd., Ste. 280 Katy, TX 77450 (281) 599-3303

Circle One:

Regular Gold Membership

\$32/month + \$2.64 Tax

or

Premium Platinum Membership

\$59/month + \$4.87 Tax

Billing Address:

Name: _____

Address: _____

City/ State/ Zip: _____

Phone #: _____ **Email:** _____

Credit Card Info:

Credit Card #: _____

Visa/MasterCard/Discover/ AMEX

CCV#: _____ **Exp Date (MM/YY):** _____

Signature: _____ **Date:** _____

I authorize The Cellar Door Winery to charge my credit card on the 2nd of each month for the wine club benefits. Tax is \$2.64 for Regular Gold membership, and \$4.87 for Premium Platinum membership. I must give written notice of any changes of billing or account information or cancellation of benefits (or email at info@cellardoorkaty.com). By signing this, I certify that I am at least 21 years of age.



The Cellar Door Wine Club

Regular Gold Membership

As a member, you will receive:

- **2 Stars (**)** to redeem in Wine per month.
- **10% off** all Food.
- **15% off** all Wine purchased In-House at The Cellar Door.
- **15% off** all Merchandise.
- **30% off** Take-Home Bottles.
- Invites to **Member-Exclusive Events**: Monthly Wine Tastings, Wine Dinners, and more!

Enjoy **All** of these benefits
for only **\$32 per month** +Tax \$2.64

Premium Platinum Membership

As a member, you will receive:

- **4 Stars (****)** to redeem in Wine per month.
- **10% off** all Food.
- **20% off** all Wine purchased In-House at The Cellar Door.
- **20% off** all Merchandise.
- **30% off** Take-Home Bottles
- Invites to **Member-Exclusive Events**: Monthly Wine Tastings, Wine Dinners, and more!

Enjoy **All** of these benefits
for only **\$59 per month** +Tax \$4.87

TERMS AND CONDITIONS: As a member you will receive two stars worth of wine (four stars worth of wine for Platinum) every month as take-home bottles. The Cellar Door Winery will bill the credit card provided on the signup sheet on the 2nd of each month + taxes and shipping (if applicable). If you need to update billing/contact information, change membership plans, or cancel your membership, you must do so in writing, through e-mail (info@cellardoorkaty.com), or in person via the Account Update Form with your wine consultant. It is your obligation to notify The Cellar Door of any of the before-mentioned changes, before the beginning of the next billing cycle (the 2nd of each month). Membership details subject to change without notice. Buyer and recipient must be at least 21 years old. Discounts are subject to approval, cannot combine with other offers such as Happy Hour.

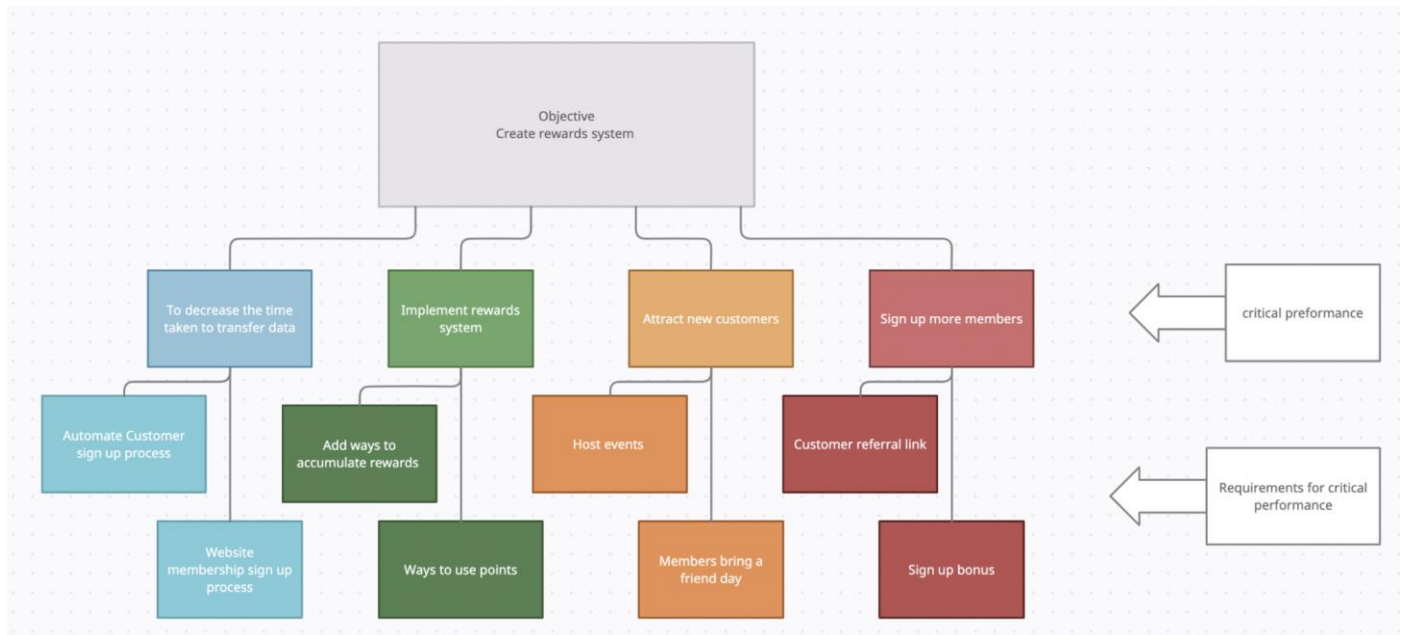


Complete Requirements List

Rank	Requirement Description	In scope (y or n)	Current Level of	Required Level	Team Comments	Client Comments
Mandatory Requirements						
1	Automation of the member sign-up process	y	low	high		
2	Computer analysis of client to determine if it meets minimum requirements to sustain our system	y	high	high		
3	All data needs to be stored safely and securely	y	medium	high		
4	Build a database on-premise in the form of mini server	y	low	medium		
5	Create and test the system before putting the system into place	y	medium	high		
6	The foundation of the database will be Excel. The system must be able to read and write Excel documents	y	medium	medium		
7	Set a unique primary key to every member of the wine club such as ID	y	medium	high		
8	Membership registration must be available online	y	low	high		
9	System needs to have permission-based roles assigned to all users of system	y	low	medium		
10	Migration of data from old system to new system	y	medium	medium		
11	Once a user submits information in the sign-in section of the website information must be stored on the database	y	low	high		
12	When a customer is prompted to input information at the store his relevant data must be called properly	y	medium	high		
13	Customer must have the ability to input their information such as Phone number or name through the form of keyboard	y	low	medium		
14	Manipulation of customer points and discounts must be allowed only to manager level users	y	low	medium		
15	Must have a user input interface for those with the permissions allowed to create and insert new discounts and offers as they wish	y	low	medium		
16	Automate the calculations of points earned and points rolled over to next month	y	medium	high		
17	Make sure the rewards points are accumulated every month	y	high	high		
18	Train current staff and managers on how to use our system	y	medium	high		
Key Requirements						
1	Create a clean and simple user interface for both members and employees for ease of use and minimize mistakes	y	medium	high		
2	The business side of the system must have a proper design for navigation	y	low	high		
3	Analyze the general business functions and their database needs	y	low	high		
4	Build resilience into our system to make sure all data is kept safe and accessible	y	low	high		
5	Create a system strong enough to be able to handle multiple users signing up and accessing data simultaneously	y	medium	high		
6	Present the different membership types and their benefits received to the customer, along with the spent dollar point earned	y	medium	high		
7	Only required information such as customer Address, Email, Phone Number, Name should be asked for. No additional information	y	high	high		
8	Identify all data types that are going to be used and how to use them to our advantage	y	low	medium		
9	The system must have tags to represent each discount	y	low	medium		
10	Implement input, processing, and output controls (data validation). Test to ensure basic data validation is in place (for example	y	low	high		
11	System user management and authentication - Create separate user accounts for the winery employees to login. Different levels	y	low	medium		
12	Define user login parameters: password requirements (minimum length, complexity, how often it needs to be changed)	y	low	medium		
13	Define backup procedures. Database backups and offline backups. How often will database backups run; will they be run automatically	y	low	medium		
14	Allow the system to be able to be changed or added to with relative ease	y	low	high		
15	Maintenance schedules for maintaining the program	y	low	medium		
16	Ensure system has a user activity audit trail, a system log of all administrative and user actions that have occurred. This will be	y	low	medium		
17	Evaluate where, how and where we can improve our system	y	low	medium		
Desirable Requirements						
1	Get the winery name out to more potential customers	y	medium	high		
2	Develop reports - 1) Member listing by membership level, 2) Member listing by location, 3) List of members whose membership	y	low	high		
3	Counter or tracker that shows the age of membership status	y	low	medium		
4	Digital receipt of points accumulated and used	y	low	high		
5	Have built in analytics to show reports regarding customer subscription and other metrics	y	low	high		
6	In-store sign-up kiosk	y	low	medium		
7	Built in marketing system to allow members to be reminded of rewards/offers they have	y	low	medium		
8	Use customer data to put the most popular redeemed rewards as the first thing seen by the customer	y	low	medium		
9	Implement a member referral link system that current members can share and both the member and recipient both get benefits	y	low	medium		
10	Use customer data to send reminders of events that may be held at the winery	y	low	medium		
11	Send redeemable items to loyal customers that have held membership status for some time	y	low	medium		
12	Track customer birthdays and send coupons as birthday gifts to encourage business	y	low	medium		
13	Have filtered views for any metrics and information	y	low	medium		
14	Coupon Management System to motivate customers to return	y	low	medium		
15	The theme of the overall system must match the business desired color scheme	y	low	medium		
16	Allow 24/7 access for customers and employees to access user accounts	y	low	medium		
17	Sign-up authentication from users such as digital signature as a precaution	y	low	medium		
18	Allow membership cancellation from users account as an option	y	low	medium		
19	Allowing wine club members to log on to the website and update their credit card information on file	n	low	medium	Accountability and responsibility for this remains with the client	
20	Work to retain existing customers	n	low	medium	Accountability and responsibility for this remains with the client	
21	Build positive relationships	n	low	medium	Accountability and responsibility for this remains with the client	
22	Get customers to keep coming back	n	low	medium	Accountability and responsibility for this remains with the client	
23	An app-based rewards program	n	low	medium	We are focused on the web-based system and will not be creating a mobile app	



Critical Requirements Analysis Objective Tree





Current Business Rule List

Daily

- Check customer for membership status if applicable and if customer is of age to partake in consumption of alcoholic beverages.
- Provide exceptional customer service.
- Provide samples to customers upon request.
- Keep clean environment for customers such as clean tables, bar, seats and floors.
- Apply customer discounts where necessary.



Current Business Activity List

Daily

- Count and maintain register balance during opening/closing shifts as well as follow proper procedures when counting register.
- encourage customers to sign up for the wine club and explain all aspects of membership.

Monthly

- Calculate employee hours worked as hourly rate for employee wages.
- End of month inventory check on all wines and foods.
- Customer data updates such as points and contact information.

Quarterly

- Quarterly business profit margins and evaluation of said profit margins.
- Competition evaluation of all immediate and non-immediate competitors.
- Group discussion of business improvement ideas and personal improvement.

Yearly

- End of year profits margin evaluation.
- Next year's expected profits and profit goals.
- Evaluate if goals for the year were met and how to achieve them if not.

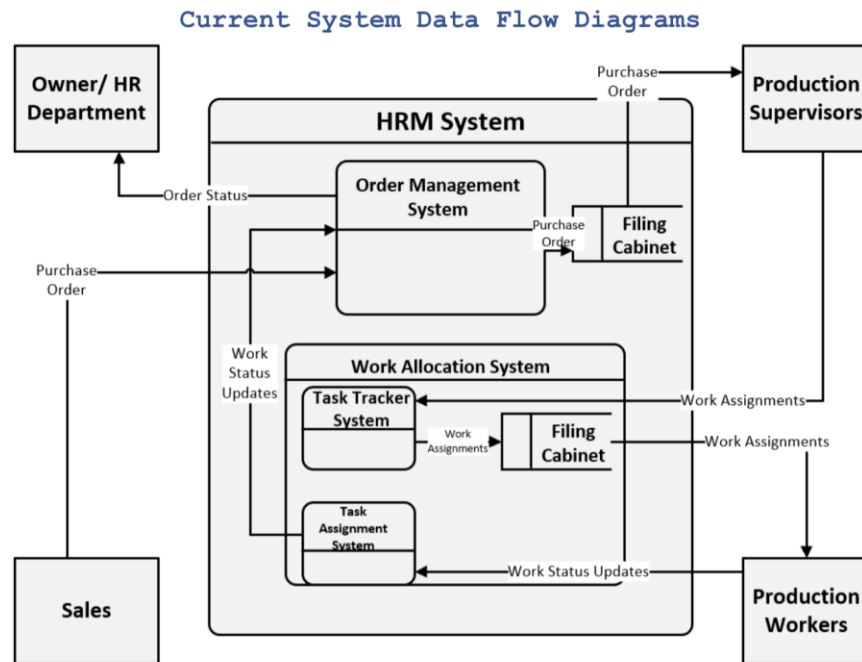


Current Event Response Table

Event	Source	Use Case	Response	Destination
Beginning/end of day	Employee	Count register balance during opening/closing	Register balance	Employee
Employee asks customer to sign up for wine club	Employee	Encourage customers to sign up for wine club	Wine club	User
Time to calculate employee wages	Manager	Calculate employee wages	Employee wages	Employee
Time to check monthly inventory	Staff	End of month inventory	Inventory updated	Manager
Time to update customer data	Manager	Customer data update	Customer data updated	Manager
Check business profit margins every 3 months	Manager	Quarterly business profit margins	Profit margins checked	Manager
Evaluate compensation every 3 months	Manager	Evaluate competition	Compensation Evaluated	Employee
Discuss every 3 months on how/where to improve	Staff	Discuss ideas on how to improve	Attained knowledge on where/how to improve	Staff
Check profits in the end of year	Manager	End of year profits	Profits checked/evaluated	Manager
Time to discuss next year's goals	Staff	Next years expected profits/profit goals	Next year's goals discussed	Staff
Time to discuss previous years' goals	Staff	Business Progression.	Previous years' goals discussed	Staff



Current System Data Flow Diagrams





Client SWOT Analysis

Strength

- The client has a close group of employees.
- The client has an established customer base.
- The client has a local computer that can be the home of our system.

Weaknesses

- The current process for their current system is time consuming.
- The current system has a lot of room for error.
- Little to no media coverage and advertising for the company.

Opportunities

- The client has the potential to recruit new members.
- The client can potentially collaborate and hold events with others.
- Our client has few competitors in the immediate area.

Threats

- The location of the restaurant is hidden from the major street with little to no signs.
- Stores such as HEB are getting more involved with wine, potentially taking customers away.
- There is only one store location making it harder to reach more customers.



Systems Proposal with at least 2 or 3 options

Proposal 1



POINTECH

System Proposal

Team Members:

Tyler Therriault

Luis Rodriguez

Vijay Kolla

Alec Villarreal

Hamza Saeed

Jaime Rodriguez

Christine Steinhauer

Table of Contents

System Proposal 1

Table of Contents 2

Executive Summary 3

Systems Alternatives 4



Systems Analysts Recommendations 5

Summary 6

Executive Summary

The Cellar Door is a business dedicated to providing quality wine and food for its customers. A wide variety of wines, very reasonably priced selections, is something that one can't go wrong with. While this is certainly a major plus and current success with the business, one issue they are facing right now is the lack of electronic transfer and automation. All membership information is currently transferred into their system by hand, which is time-consuming and inefficient. What this system implementation will aim to do is automate the membership information transfer process. Another goal will be to implement rewards point system, to help gain new customer memberships, encourage more spending, and get the business name out to more people. Our system implementation will satisfy these goals and improve the business overall from its current state. This system will be implemented and finished by the end of the 2023 Spring Semester. An electronic transfer and automation system and rewards point system is the way forward and implementing this system will yield direct tangible benefits for the business.

Systems Alternatives

Proposal 1: Proposed System Customer Rewards Loyalty System

A compact system built to manage all aspects of the customer rewards/membership system that your store has and with built-in functionality for the business to expand with new ideas and deals. The system is built with a fully functioning database, automated point system, allocate rewards to the customer, online membership registration through website, and permission-based accounts for the employees for full information security.

Advantages:



- Built with customization in mind and built to business's requests.
- Training and support will be provided for free during implementation of the program.
- Built in Permissions management.
- Fully automates the workflow and costs no money for the business.

Disadvantages:

- Not an on-demand software that is based on plug and play functionality.
- Nearly one year of time investment required for planning, designing, and building the system.

Feasibility report:

Regarding the feasibility of this proposal, it is the ideal project for this client due to their having direct input into the structure and functions that they need regarding the product. Also, being a system in which they do not have to pull any money out of their pocket makes it a straightforward solution and a great deal. Also, by having direct input and our team having gathered all relevant data we are fully sure that we have the scope to build the product which they need. Also, with the solution that is being designed it is built with their current hardware in mind, meaning that they won't need to make any additional investments regarding adapting our product into their workflow.

Proposal 2: FieldEdge dESCO Enterprise software

FieldEdge dESCO software. Standard enterprise customer loyalty system used by other business stores. Enterprise software with history among various businesses and has lot of features that the business can explore.

Advantages:

- Professional Enterprise software built by an established company with relevant community recognition.
- Live customer support for troubleshooting.

Disadvantages:

- Extreme costs for building and implementation.



- Requires upgrading current hardware to maintain and run systems.
- Complex software which requires on-hand training.
- It has many more features than what the business truly needs.

Feasibility report:

This next proposal is an option from a trustworthy software provider. It offers a performance dashboard, customer management and many more features. Although these features seem top of the line, many of these features are unnecessary and redundant for this client. The Cellar Door Winery is a small family-owned business, with only 1 store location and around 5-8 employees. The FieldEdge software will likely only meet some of their customer management needs. It will not meet all of their requirements, since it is not customized for their business. In addition, the software could be too complicated and expensive for their needs. Their existing computers do not meet the minimum system requirements to run FieldEdge. They have the option to either install FieldEdge locally or purchase the Cloud service. In addition to the cost incurred to upgrade their existing computers, FieldEdge has a monthly subscription fee of \$100 per user. This client has approximately 5 users who would interact with this software, resulting in \$500 per month. If the customer chooses to implement FieldEdge, it is already developed so they could be up and running expeditiously. However, it may require hiring a consultant to help the client set up this software and train the assigned users.

System Analysis Recommendation

The recommendation for the Cellar Door from our group of analysts is our custom-made customer rewards loyalty system (CRL) system built in with all the mandatory requirements that we have obtained from the client. Our custom-built CRM system allows for the business to fully transition their process of obtaining and maintaining members and the loyalty program off the paper-based system to a fully digitized system to create a streamlined and efficient workflow. The program is going to become an internal program hosted on our client's hardware in which the employees can use and the managers as well with a permissions system set in place.



Our product is only a net benefit for the company due to the client's investment being negligible at worst due to the only investment they have input is their time. Our product is of no cost to them and at the same time is built under the needs that have been identified after carefully talking with the client. An external enterprise system is a valid choice however the base system itself has many functionalities that the business does not need.

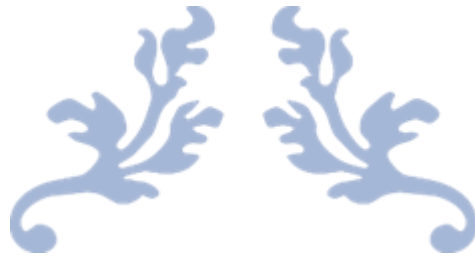
Summary

PoinTech is a team that is built of the principles of uplifting and supporting our clients by providing them with quality services to improve or help our client transition. Our team's goal is to help our clients in moving them to a program which alleviates them of the struggles of having to manually keep track of data and information of their customers and other metrics that they hold. We do all of this while not charging our client a penny due to our willingness to help and serve the community.

After fully analyzing our client's current systems and goals for their business, PoinTech has provided different solutions to the issue that our client has explained to us after careful analysis of the clients physical and digital issues. For The Cellar Door, PoinTech is willing to provide them a fully designed and implement the custom-made CRM system which will fully solve the issue regarding managing the membership/loyalty program.

PoinTech currently has offered The Cellar Door two different systems alternatives to the current system that they have on hand with one of the solutions being our custom-made program. Our mission at PoinTech is to improve the way The Cellar Door can manage their membership and loyalty program by removing the tedious repetitive tasks that need to be performed in order to have the end goal done. With our own proposed system it is being built with the goal to automate the backend procedures and to allow the business to focus on serving the customer without having to worry about menial technology related issues.

Proposal 2



POINTECH

Employee Incident Report System

Team members:

Tyler Therriault

Luis Rodriguez

Vijay Kolla

Alec Villarreal

Hamza Saeed

Jaime Rodriguez

Christine Steinhauer

Table of Contents

System Proposal 1

Table of Contents 2

Executive Summary 3

Systems Alternatives 4



Systems Analysts Recommendations 5

Summary 6

Executive Summary

Introduction

The Cellar Door is a business dedicated to providing quality wine and food for its customers. A wide variety of wines, very reasonably priced selections, it's something that one can't go wrong with. This project focuses on designing a system to track employee incidents, such a system can benefit this company by holding employees accountable for their actions. The winery now does not have such a system in place all the incidents are reported to the manager and the manager deals with it when he or she has time. The main purpose of this system will be to take the workload off the manager and allow for a simpler approach of tracking incidents. This system will implement a strike system that will allow up to as many strikes the client desires a single employee can obtain this will help the manager track which employees are not following their business rules. Along with the strike system this will also save all incidents into a database and tie those incident reports to the employee for managers to see.

Systems Alternatives

Option 1: Paper documentation system

A paper documentation system is the most common way to approach this system, majority of employers follow this approach, but it is not the ideal way to attack this problem.

Advantages

- This paper system is easy to implement and very cost effective
- Anyone can implement this into their desired business

Disadvantage

- It is very time-consuming process to follow
 - Storing all this data take up room



- Accessing this data when reviewing a employee is a long process

Option 2: The recommended report system

This approach is not as common but still used by some businesses, it is very effective and useful.

Advantages

- It allows for ease of access when looking at employee reports
 - Stores all incidents from past to present
 - Reduces workload for managers

Disadvantages

- It takes time to build and implement this system into the workplace
 - It will be pricier than the paper documentation system

Option 3: Use the current system in place

The current system is a manager only base system, the manager is told about an incident and deals with it if however, he or she wants with no documentation.

Advantage

- This is a very cost-effective approach costing no money at all

Disadvantage

- The manager must remember all past incidents for all employees
- This makes way for favoritism among employees to take place
 - Does not hold employees accountable for their actions.

System Analysis Recommendation

When looking and discussing all the different systems that could be used for this employee incident report system, our recommendation for the winery is to implement the digital system. The digital system when looking at how it compared to the others is much better for what they want a system to do and has a lot of customizable features that can tailor the system to our client. The current system is a poor system that is proven to not work effectively in many different aspects. With the implementation of this system a better more robust way of dealing with employee incidents is the sole outcome.



Summary

In conclusion our team of system designers are obligated to helping business grow and reach new levels of functionality, our team will do everything in their power to help these companies reach these new levels. After speaking with the winery, we have concluded that they have a few areas that they could benefit from a software system, one of these systems being an employee incident report system. we concluded this will help this company in many ways and encourage employees to work to the greatest. We presented three unique system that they could use to achieve this report system and recommended that they use the online automated tracking system. After careful consideration on their part that concluded that the would not benefit from this system as much as they would like and decided to go with a different system.



Systems Proposal Presentation

POINTECH



CUSTOMER LOYALTY SYSTEM

Tyler Therriault
Luis Rodriguez
Vijay Kolla
Alec Villarreal
Hamza Saeed
Jaime Rodriguez
Christine Steinhauer

Team Communication

1 MICROSOFT TEAMS

2 PHONE OR EMAIL
(281) 599-3303 or info@cellardoorkaty.com

3 CLIENT NAME
The Cellar Door






CLIENT CONFIRM LETTER

Fall 2022 - 2023 Semester
University of Houston

CS 3343 (Information Systems Analysis & Design)

Ron Holcomb
The Cellar Door
815 335-3303
info@thecellardoor.com
828 Avenue R, Killeen,
TX 77430





I, Ron Holcomb (owner) agree to work with PointTech (JH Project Team Name) for the next two academic semesters to develop a project for my company.

Brief Project Description: (SQL Server will be the database)

Our project aims to take The Cellar Door's manual system and automate their rewards program so the company can increase visibility through customer metrics of the company's performance. This project would reduce the task load for the winery and expand the business' efficiency in storing and collecting data for their rewards program. This would also allow them to create dashboards to implement and visualize critical metrics and KPIs (Key Performance Indicators) centered around customer engagement.

Client data will only be used for the purpose of CS 3343 & CS 3365 project.


Owner
Date: 9/9/22


Project Manager (JH Team)
Date: 9/9/22

Project Team Members:

1. Tyler Theriault
2. Luis Rodriguez
3. Vijay Kolla
4. Jaime Rodriguez
5. Hernan Saenz
6. Christine Steinhilber
7. Alec Villarreal



CLIENT ORGANIZATION HISTORY & BACKGROUND

- FAMILY RUN WINERY.
- OPENED IN 2010.
- PRODUCES ABOUT 12-18 OF ITS WINES.
- OFFER A WINE CLUB LOYALTY PROGRAM.
- OVER 300 MEMBERS.
- LOT OF MANUAL WORK .





PROJECT SELECTION ANALYSIS

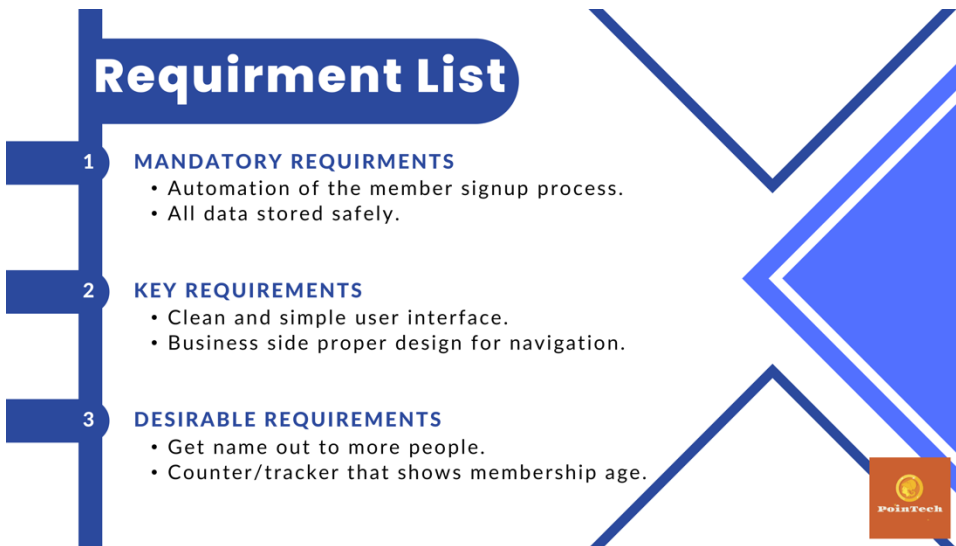
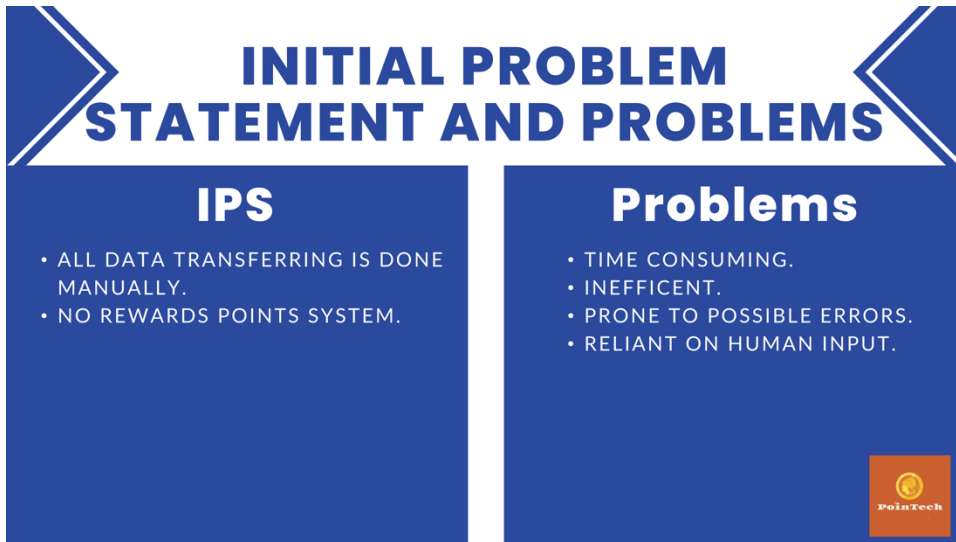
- REMO'S BBQ FIRST.
- KIM'S TEAHOUSE SECOND.
- SACKET /BAY AREA SAILING SCHOOL THIRD.
- SKATE SHOP FOURTH.
- ARA'S BARBERSHOP FIFTH.
- THE CELLAR DOOR SIXTH.



CURRENT SYSTEM DESCRIPTION & PROBLEMS

- 1 PROBLEM STATEMENT**
Create a system-generated account for new members.
- 2 ISSUE**
The Cellar Door's current rewards system is manual.
- 3 OBJECTIVE**
The Cellar Door would like to automate their system.







DATA GATHERING

1 DATA GATHERING GOALS

- Current system cons.
- Cons of current system.
- Deciding Point Values & reward categories.

2 DATA GATHERING METHODS

Interviews, pyramid based questionnaire, emails, client observation.

3 SAMPLE QUESTIONS

Do you prefer a text message, a website, or an app-based rewards program?

Answer: Either a website or an app-based rewards program.

How many computers would you need to access this system?

Answer: We would need 2-3 computers.



TEAM ROLES/RESPONSIBILITIES MATRIX

Responsibilities Matrix									
S.No.	Project Task	Designation	Project Manager	Assistant Manager	Client Relations Manager	UI Designer	System Analyst	Lead Programmer	Client Relations
		Name of Student	Tiber Tharavath	Loan Rodriguez	Vijay Kulkarni	Alex Villanar	Ramya Suresh	James Rodriguez	Christina Sridharan
1	Identification of Team Members	Done							
2	Team Name (Unique to your Learning team)	Done			X				
3	Team Logo (Unique to your Learning team)	Done			X				
4	Team Communication Plan	Done		X					
5	Team Role/Responsibilities Matrix	Done					X		
6	Current Client Letter	Done			X				X
7	Client Organization Chart and History/Background	Done			X				X
8	Current Software Analysis	Done			X		X		
9	Current System Description & Features	Done		X					
10	Initial Project Work Breakdown Structure & Gantt Chart	Done	X						
11	Current Diagrams	Done						X	
12	Client Organization Objective List	Done				X			
13	Client Application (System) Objective List	Done		X					
14	UI Designing Goals	Done		X					
15	UI Designing Methods	Done		X					
16	UI Designing Questions	Done					X	X	
17	UI Designing Results	Done					X		
18	UI Designing Analysis	Done							X
19	UI Designing of Reports	Done							X
20	Current Requirements List	Done	X	X	X	X			
21	Current Requirements Analysis	Done		X					
22	Current Business Rule List	Done	X			X			
23	Current Business Rule List	Done	X			X			
24	Current System Response Time	Done					X		
25	Current System Role List	Done	X	X	X	X	X	X	X
26	Current System Analysis	Done							
27	System Proposal with at least 10% of System	Done		X	X		X		
28	System Proposal Presentation	Done				X			
29	Updated Listing of Actions per User/Role	Done					X		
30	Current System Study with 10 References	Done						X	





CLIENT ORGANIZATION OBJECTIVE LIST

- 1 PROVIDE OVER 300 WINE BOTTLES FROM ALL OVER THE WORLD
- 2 EXPAND THEIR CLIENTELE
- 3 ADD MORE MEMBERS TO THE WINE CLUB
- 4 USE OUR SYSTEM FOR THE NEAR FUTURE
- 5 HOLD MORE EVENTS



STROBE ANALYSIS



FRONT ENTRANCE TO WINERY



POS SYSTEM SETUP



OFFICE SETUP





SAMPLE OF RECORDS

The Cellar Door
Wine Club Membership Application
420 S. Main St., Ste. 200, San Jose, CA 95128 (408) 999-1300

Circle One:
Regular Gold Membership \$322/month + \$2.64 Tax **or** **Premium Platinum Membership** \$508/month + \$4.57 Tax

Billing Address:
Name: _____
Address: _____
City/State/Zip: _____
Phone #: _____ Email: _____

Credit Card Info:
Credit Card #: _____
Visa/MasterCard/Discover/AMEX
CCVV: _____ Exp. Date (MM/YY): _____

Signature: _____ Date: _____

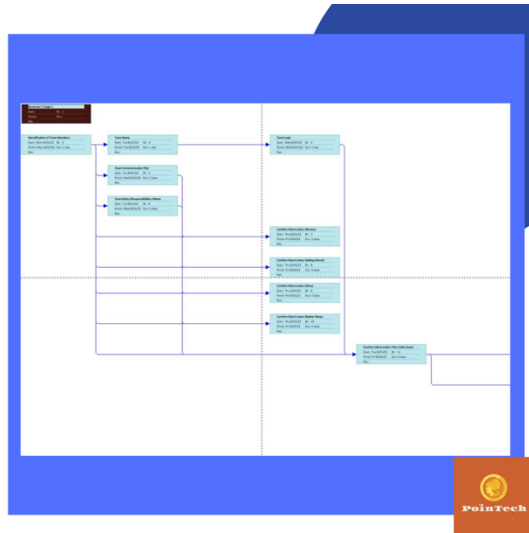
I authorize The Cellar Door Winery to charge my credit card on the 27th of each month for the wine club benefits. Tax is \$2.64 for Regular Gold membership, and \$4.57 for Premium Platinum membership. I must give written notice of any changes of billing or account information or cancellation of benefits (or email at info@cellardoor.com). By signing this, I certify that I am at least 21 years of age.

PARTIAL WBS

Task Name		Start	Finish	Predecessors
1	Semester 1 Stage 1			
2	Identification of Team Members	Mon 8/23/22	Mon 8/23/22	
3	Team Name	Mon 8/23/22	Mon 8/23/22	
4	Team Logo	Mon 8/23/22	Mon 8/23/22	
5	Team Communication Plan	Tue 8/23/22	Wed 8/24/22	
6	Team Roles/Responsibilities Matrix	Thu 8/25/22	Fri 8/26/22	
7	Confirm Client Letter (Hemlock)	Sat 8/27/22	Mon 8/29/22	
8	Confirm Client Letter (Delling School)	Tue 8/30/22	Wed 8/31/22	
9	Confirm Client Letter (Jensen)	Thu 9/1/22	Fri 9/2/22	
10	Confirm Client Letter (Baker Shop)	Sat 9/3/22	Mon 9/5/22	
11	Confirm Client Letter (The Cellar Door)	Sun 9/4/22	Mon 9/5/22	
12	Client Organization Chart and History/Background	Tue 9/6/22	Wed 9/7/22	11
13	Project Selection Analysis	Thu 9/8/22	Wed 9/14/22	
14	Current System Description & Problems	Thu 9/8/22	Fri 9/9/22	
15	Initial Project Work Breakdown Structure & Gantt Chart	Mon 9/12/22	Tue 9/13/22	13,14
16	REET Process	Wed 9/14/22	Thu 9/15/22	15



PARTIAL PERT DIAGRAM



INITIAL FEASIBILITY ANALYSIS

TECHNICAL FEASIBILITY

- Will be feasible to code.
- Also feasible to implement in server.

FINANCIAL FEASIBILITY

- No financial cost.

OPERATIONAL FEASIBILITY

- Will be user friendly.
- Easy for employees to interact.

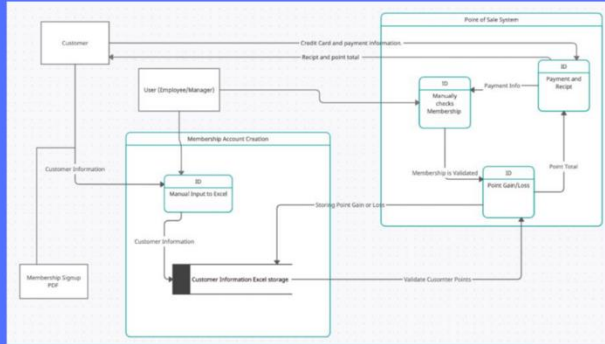
ECONOMIC FEASIBILITY

- Will improve business income.





CURRENT SYSTEM DATA FLOW DIAGRAM



CLIENT SWOT ANALYSIS

STRENGTHS

- Close group of employees.
- Well established customer base.
- A local computer.

WEAKNESSES

- Current process is time consuming.
- Room for error.
- No media coverage & advertising.

OPPORTUNITIES

- Potential for new members.
- Collaborate & hold events.
- Few competitors in the area.

THREATS

- Location hidden from major street.
- Other stores carrying wine.
- Only one store location.



PROPOSAL 1

- Customer Rewards Loyalty System
- Built with customization in mind
- Not an on-demand software

PROPOSAL 2

- Recommended Report System
- Stores all incidents
- Takes time to build and implement

ANY QUESTIONS?





Updated Listing of Authors per Deliverable

Listing of Authors Per Deliverable

Deliverables	Primary Author	Secondary Author	Editor(s)
1. Overall Document Format	Hamza Saeed		
2. Identification of Team Members			
3. Team Name	Vijay Kolla		
4. Team Logo	Vilay Kolla		
5. Team Communication Plan	Luis Rodriguez		
6. Team Roles/Responsibility Matrix	Hamza Saeed		
7. Confirm Client Letter	Vijay Kolla		
8. Client Organization Chart and History/Background	Christine Steinhauer		
9. Project Selection Analysis	Vijay Kolla	Hamza Saeed	
10. Current System Description and Problems	Luis Rodriguez		
11. Initial WBS and Gantt Chart	Tyler Therriault		
12. Pert Diagram	Jaime Rodriguez		
13. Client Organization Objective List	Alec Villarreal		
14. Client Application (System) Objective List	Tyler Therriault		
15. Data Gathering Goals	Tyler Therriault		
16. Data Gathering Methods	Tyler Therriault	Christine Steinhauer	
17. Data Gathering Questions	Tyler Therriault	Vijay Kolla	Hamza Saeed



18. Data Gathering Results	Hamza Saeed		
19. STROBE Analysis	Christine Steinhauer		
20. Samples of Records	Christine Steinhauer		
21. Complete Requirements List	Luis Rodriguez		
22. Critical Requirements Analysis Objective Tree	Luis Rodriguez		
23. Current Business Rule List	Tyler Therriault	Alec Villarreal	
24. Current Business Activity List	Alec Villarreal		
25. Current Event Response Table	Hamza Saeed		
26. Current System Data Flow Diagram	Vijay Kolla	Luis Rodriguez	Tyler Therriault
27. Client SWOT Analysis	Alec Villarreal		
28. Systems Proposal with at least 2 or 3 options	Vijay Kolla	Alec Villarreal	
29. Systems Proposal Application	Tyler Therriault	Hamza Saeed	
30. Updated Listings of Authors per Deliverable	Hamza Saeed	Jaime Rodriguez	
31. Current Systems Study with References	Jaime Rodriguez	Vijay Kolla	



Current Systems Study with References

References

Tilley, S. (2020). *Systems Analysis and Design* (12th ed., Ser. Shelley Cashman). Cengage.