

Primary Author: Justin Caringal
Group Members: Akansha Negi, Andrew Ruff, Julian Williams



Project Proposal

Document Control

Document Information

Information	
Document Id	0001
Document Owner	Justin Caringal
Issue Date	2024-02-21
Last Saved Date	2024-02-21
File Name	ProjectManager-Project-Proposal

Document History

Version	Issue Date	Changes
1.0	2024-02-21	Original Document Created

Document Approvals

Role	Name	Signature	Date
Project Sponsor	Ruthie Halma		
Project Review Group	Stargazers Astronomy Club	Austin Hembrecht	2024-02-21
Project Manager	Justin Caringal	Justin Caringal	2024-02-21
Quality Manager (if applicable)			
Procurement Manager (if applicable)			
Communications Manager (if applicable)			
Project Office Manager (if applicable)			

Table of Contents

TEMPLATE GUIDE.....	1
1 EXECUTIVE SUMMARY.....	2
2 BACKGROUND.....	2
2.1 HISTORY.....	2
2.2 REQUIREMENTS.....	2
2.3 SOLUTION.....	3
3 PROPOSAL.....	3
3.1 VISION AND GOALS.....	3
3.2 DELIVERABLES.....	4
3.3 TIMEFRAME.....	4
3.4 RESOURCES.....	5
3.5 BUDGET.....	6
3.6 OWNERSHIP.....	6
3.7 REPORTING.....	7
3.8 RISKS & ISSUES.....	7
3.9 IMPLICATIONS.....	8
3.10 SUCCESS CRITERIA.....	8
3.11 AUTHORIZATION.....	8
4 APPENDIX.....	9
4.1 SUPPORTING DOCUMENTATION.....	9

Template Guide

What is a Project Proposal?

A *Project Proposal* is a document that is written to kick-off a new project. It needs to convince a sponsor that a project needs to be initiated to solve a particular problem or opportunity in the business.

It describes in depth, the basis upon which the project needs to be commenced, so that the sponsor fully understands why it's critical to the business and what is involved.

*It also needs to outline the implications of **not** approving the project, so that the sponsor is forced to make a clear decision – to approve the project, or not.*

When do I use a Project Proposal?

Any time that you need to coordinate resources, tasks, equipment and raw materials within a specific timeframe to achieve a particular business goal, then you should consider doing this as part of a formal project.

The first step when initiating a project is to document a Project Proposal. It helps you formalize the project so that it has a specific vision that needs to be achieved in order to determine its success.



Ideally a Project Proposal will be written by the intended manager of the project. However sometimes it is written by a business manager if the Project Manager is yet to be selected. It is always presented to senior management within the business for approval.

Once approved, the next step is usually to write a [Business Case](#) which justifies the project financially. Soon after that, a [Project Charter](#) will be written based on this Project Proposal, to scope out the project and ensure that everyone is clear about what needs to be done.

How to use this template

This document outlines the sections needed to complete a Project Proposal. You need to replace the content in each section with your own. Each section includes completion instructions so that you know what you need to write, to fill the document in from start to finish. You will want to remove these completion instructions as you go, to create your own customized Project Charter for your business.

1 Executive Summary

The first step to completing a Project Proposal is to write an Executive Summary. This section will summarize the entire document by describing the background for the project and the proposed Vision, Goals and Timeframes. In essence, it sets the scene for the project and makes the document enticing enough to read and endorse, so that the project can be kicked-off. So, summarize each of the sections in this document concisely by outlining the:

- History, requirements and proposed solution
- Project vision, goals deliverables and timeframes
- Resources, budget and success criteria.

Many organizations keep much of their roster information and other relevant information in disparate locations in an unorganized fashion. We reached out to the Stargazers Astronomy Club to see if they had any need for any software or programs. One of their top requests was a roster management system in order to track membership information, take attendance, and send out emails to club members. We hope to deliver on this shared vision and be able to create a generalized platform so that any registered student organization can access and utilize the system in order to streamline executive board functions.

2 Background

2.1 History

Before you describe the proposal in depth, you need to provide the reader with a brief historical view of the company, so that it sets the context upon which the project will be initiated. As this is the basis upon which the project is created, you need to describe all of the relevant history that has taken place up until now.

For instance, if this was a proposal to create a project to implement a new software package for the business, then this section would describe historically which software packages had been used until now, which had succeeded and which had failed, as well as when the software is due for replacement and who the relevant software vendors are.

Without this information, there may be delays in the approval of this document because the Project Sponsor may wish to know more about the basis upon which the project is being created.

Formed by four computer science majors at Truman State University, the company was founded on the shared belief and vision to provide pro bono software development over the course of the Spring 2024 semester. Before we approached Stargazers Astronomy Club, most of the roster information and email system was contained in a shared Google Drive folder, as part of Microsoft Outlook's email component, and TruView (Truman State University's student portal). We hope to unify and integrate many if not all of these functions and databases into one streamlined product for the end-user.

2.2 Requirements

Most projects are created to either solve a business problem or realize an opportunity in the market. This problem or opportunity is the reason that the project is being kicked-off, so you need to describe it here in depth.

Business Problem

If you have a business problem that needs to be solved by this project, then describe the problem in depth here. Describe the type of problem and symptoms that the business is experiencing as a direct result of the problem. For example, a business problem might be that it is struggling financially, has poor communication or low customer satisfaction.

Business opportunity

If you have a business opportunity that needs to be full-filled by the project, then describe it in depth here. Describe the environment within which the opportunity exists, the timeframe in which the opportunity must be taken up on and the way in which the opportunity must be realized. An example of an opportunity is that there is a gap in the market segment for a particular product or service, there is a new technology which can improve the business, or a regulatory change has meant that the business can provide a new product or service that it could not before.

There does not yet exist an integrated platform for Truman's recognized student organizations where they can interact with their members and perform necessary activities and functions easily. We hope to fill this gap in the market by developing our roster management system for Stargazers Astronomy Club specifically and all recognized student organizations generally. No progress has been made towards this goal, and we hope that by researching, developing, testing, and implementing our system that Stargazers and other student organizations can increase their productivity and ease the stress that comes with organization management.

2.3 Solution

The next step is to describe the *solution* to their problem or opportunity that the project must deliver. In describing the solution, you need to make clear the:

- Purpose of the solution
- Scope of the solution (i.e. what's in or out of scope)
- Way in which the solution must be delivered (i.e. approach)

Remember, the project has one purpose and one purpose only, which is "to deliver the solution to that problem or opportunity within the timeframes required". So the more that you can describe the solution in depth, the easier it will be for the project team to know what has to be delivered and by when.

In order to fill the needs presented to us by the Stargazers Astronomy Club, we hope to develop a roster management system and present it to our customers before the end of the Spring 2024 semester. We will be implementing the Python, SQL, Javascript, HTML, and CSS languages in order to develop a system that serves as a database for current membership information. We will develop a Tauri desktop application to house the system, being compatible with both the Windows and Linux operating systems. In addition, we aim to develop an integrated attendance system in order to streamline the attendance-taking process so that more time and energy can be focused on other organizational activities (such as the planning and executing of social and academic events). Finally, we hope to integrate an email service into our roster manager in order to increase the centralization and efficiency of intra-organizational communication.

3 Proposal

In the background section above, you have described the general basis upon which the project will be created. You've described the problem or opportunity that exists in the business and the solution that the project needs to deliver. In this section, it is now time to describe the project that you are proposing is initiated.

3.1 Vision and Goals

State the vision and goals of the project. They need to be "Smart" which means *Specific, Measurable, Action orientated, Realistic* and *Time* based. Where possible, try and link in the business problem or opportunity into the Vision so that the project team knows exactly what is being solved by the vision. Here is an example of a project vision:

"Our vision is to improve customer satisfaction by 25% by 1st Jan 2013 by offering new services to our high-value clients".

Our vision is to improve organizational efficiency within Stargazers Astronomy Club by 50% by 15th Sept 2024.

Then, list 3 goals which relate to our vision above. Again, make them SMART. Here are some examples

1. *"To release a customer satisfaction survey by 1st January 2012"*
2. *"To upgrade our Customer Relationship Management system by a 1st June 2012"*
3. *"To have a personal relationship with all our high-value customers by 1st January 2013"*

 1. To deliver our product by 15th April 2024
 2. To be able to support our product until at least 10th May 2024
 3. To measure increases in efficiency by 15th Sept 2024

3.2 Deliverables

Every project produces deliverables which form part of the solution that solves the business problem or opportunity. These deliverables with are key to the success of the project and they also define the scope of what must be produced. Therefore it is critical that you list all of the key deliverables that are to be produced in as much depth as possible.

Use the following table to describe deliverables to be produced by the project. Note: a deliverable is something that is produced that is handed over to the customer at the end of the project, as part of the solution. It might be a new product, a new service or a new system for instance.

Project Deliverables		
Title	Description	Notes
Final software version	The finalized version of the software, complete with all dependencies, libraries, and frameworks	Final delivery method to be determined (installer executable desired)



User Manual	A how-to guide on installation and daily operations, as well as the limitations and constraints of the software system	Will contain both a master-document of all relevant information as well as other relevant internal documentation
Source Code Repository	The source code of the project, complete with proof of development and all branches and versions. Required for future development of project by other developers	Most likely be contained in a public Github repository.

3.3 Timeframe

All projects must be delivered within a specific *timeframe*. Every business problem or opportunity must be solved by the project within a specific timeframe to maximize the value to the business.

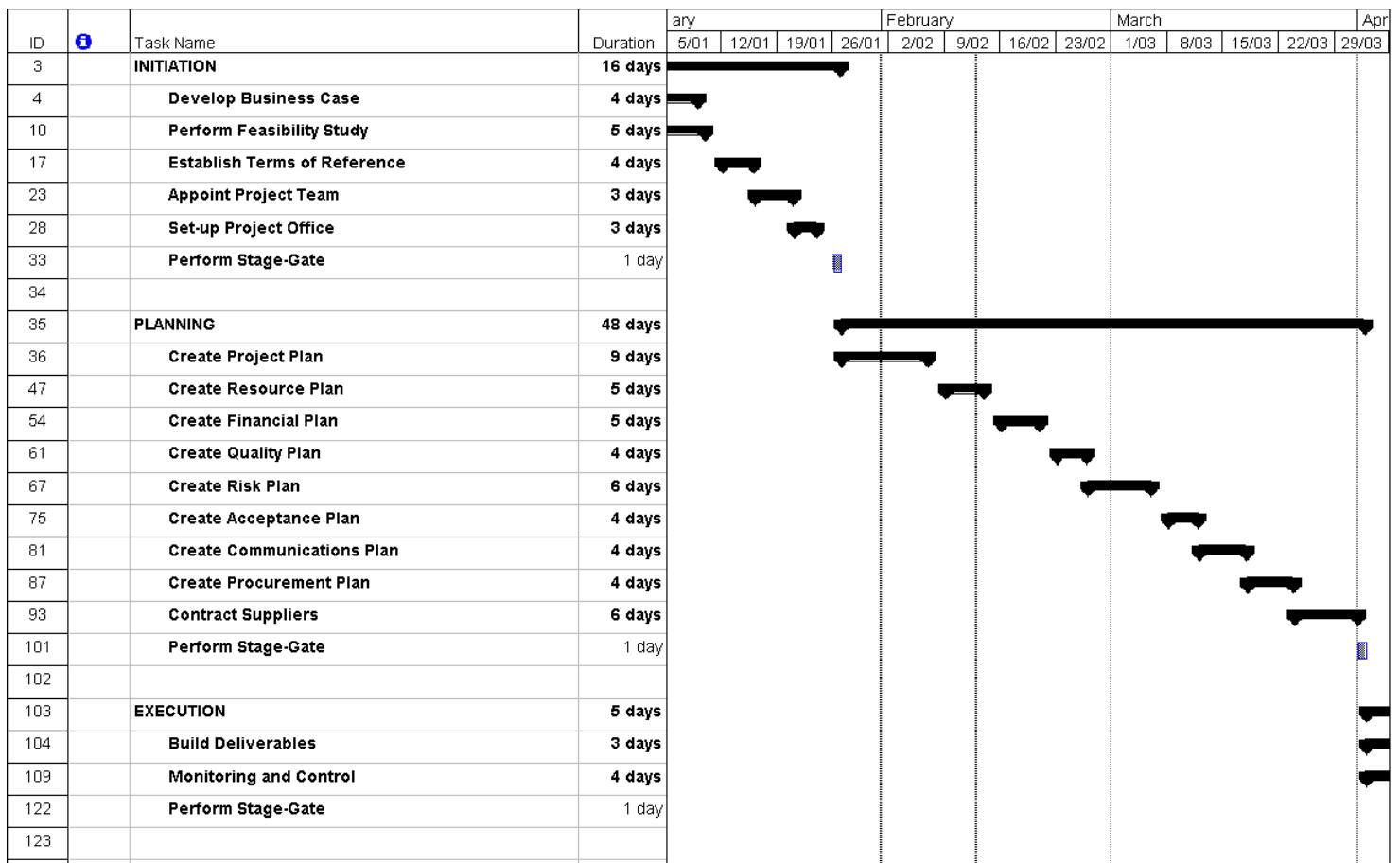
This timeframe is critical to success, because if the project delivers the solution after the timeframe specified, then the business may not benefit to the level that was intended.

So you need to specify the timeframe for delivering the project. Describe what the timeframe is and why it is so important that the project deliver the solution within this period of time.

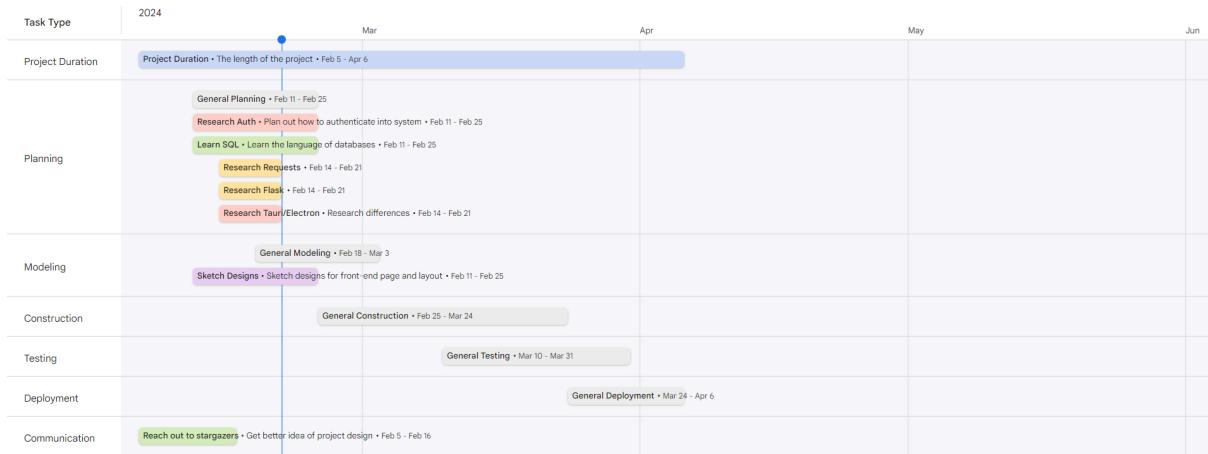
We hope to finalize, complete, and ship this product before 15th April 2024. See below for more details.

Ideally you will also include an initial *project plan* for the delivery of the project. Although it is very early stages, the reason for this is that it gives your Project Sponsor confidence that everything has been thought through and that the project can realistically be delivered within the timeframes specified.

Here is an example of a generic project plan:



Our project plan (to be updated and refined during development):



3.4 Resources

In order for your sponsor to approve the Project Proposal, they will want to have an understanding of the amount of resources required to undertake it. Complete the following table which sets out the generic resources including *people*, *equipment* and *materials* needed to undertake the project. These are only generic figures to give the Project Sponsor an idea of the level of resourcing required to finish the project.

Project Resources		
Type	Quantity	Notes
People	4	Must be computer science majors
Development computers	4 minimum	Linux development environment (WSL2 Ubuntu preferred)
Internet access	4	High-speed desirable

3.5 Budget

Since you've specified above the type and quantity of resources required to undertake the project, you will have a general feel as to the size of budget needed also.

The Project Sponsor will always want to know how much it is going to cost them. Estimate the total budget for the project based on the cost of the resources specified in the table above. Then add contingency and any other additional costs need to be factored in. You need to consider whether to include intangible costs also, like the cost of downtime or the cost of a change in culture or process within the business.

This project should be conducted on a budget as pro bono. There should not be any costs incurred or associated with the development of the roster management system. If there are any monetary costs associated with the project, development will cease.

If you are able, provide a calculation of the *Return on Investment* for the business. This is simply a formula which shows the additional revenue or benefit that will be gained by the business versus the additional cost, over time.

For example, the cost of the project may be \$100,000 however the business may gain \$300,000 in benefit over the first 12 months after the project is complete. Therefore the return on investment is \$200,000 over the first 12 months.

Although the project costs \$0.00, we hope to increase the profits of Stargazers Astronomy Club by at least 100% over the first 12 months after deployment.

3.6 Ownership

You need to make clear in this document; who owns the project delivery, who the project is being delivered for and who will be kept informed of the status of the project during its life cycle. Note:

- **Project Sponsor:** This is the person responsible for the delivery of the project. The Project Manager will report correctly to them.
- **Customer:** This is the person who will take ownership of the deliverables once the project is complete. This is also usually the person paying for the project.
- **Project Manager:** If the Project Manager is known at this time, then please add them to the following table. However often at this stage, a Project Manager may not be appointed until the document is approved. Complete the following table to make these facts clear:

Project Ownership		
Role	Name	Contact Details
Project Sponsor	Ruthie Halma	660-785-0692
Project Customer	Stargazers Astronomy Club (advisor: Vayujeet Gokhale)	660-988-7253
Project Manager	Justin Caringal	636-634-6733

3.7 Reporting

Every Project Sponsor is concerned about not receiving the right information at the right time. Use this section to describe how you are going to communicate the status of the project regularly to all of the project stakeholders (including the sponsor, customer, team and any other vested parties).

This includes describing whether you are likely to run weekly team meetings, have a project blog, distribute project reports or use [project management software](#) that comes with a dashboard for everyone to log in and see the status of their projects.

We are in constant communication with our client, sharing a messaging server on Discord, the social media messaging platform and service. In addition, the technical team meets three times a week on Monday, Wednesday, and Friday in order to touch base and further analyze and develop our plan of action. The client is occasionally invited to these meetings to update them on the progress of the development as well as provide more user stories and requests to direct this project.

3.8 Risks & Issues

Risk and issues occur which try and prevent the project from producing the deliverables on time. Use the following two tables to list all of the known risks and issues upfront.

- **Risks:** A risk as defined as “any event which could take place *in the future* that will prevent the project from producing the deliverables on time”. For instance, a risk might be that the business is unable to resource the project fully as required. For each risk, you need to specify the likelihood of it occurring (high/medium/low).
- **Issues:** An issue is “something that is *right now* affecting the project”. For instance, it might be that an issue is that at the moment, there is little funding available to initiate a new project such as this one. For each issue, you need to specify the impact it is having on your ability to kick off the project.

Project Risks		
Risk	Details	Likelihood
Data breach	SQL injection attacks, other forms of data leak	Medium - Reduced/Mitigated by use of SQLAlchemy abstracting away requests
No or minimal funding/resources	The proper equipment or materials are not acquired or maintained	Low - This is pro bono work and we have all of the materials. This would only arise if one of our personal machines malfunctioned, the chances of which are very low
Project falls behind schedule	Due to a variety of factors (poor scheduling, etc.)	Low - Scheduling tools and self-motivated team should mitigate most if not all of the likelihood of this risk

Project Issues		
Issue	Details	Impact
Lack of documentation and design	We are still developing and finalizing the initial design and prototyping	Impact mitigated through discussions with user and the aggregation of user stories
Lack of a command structure	Caringal was promoted as a leader but group dynamics are still being navigated	Has caused some initial tension but has been remedied through meetings
Lack of knowledge	Some members are mainly focused on back-end or front-end and are not full stack	Harder to get on the same page, but this is remedied through longer meetings and frequent questions and stand-ups

3.9 Implications

You need to tell your Project Sponsor about the implications of not undertaking the project. Given that the project is based on a real business problem opportunity, if that is not solved by initiating this project then what are the implications for the business?

Describe these implications here. If possible, quantify the cost to the business in *not* initiating the project.

While the implications of this project are not as dire as say the development of a cure to cancer, there will still be effects felt if this project is not completed. There will be a reduction in workflow efficiency as well as the possibility of disorganization and the loss of membership information. Because of this, the registered student organization may lose money and members from this reduced workflow. There is also the possibility of being de-sanctioned and marked as inactive by Union & Involvement Services due to this disorganization.

3.10 Success Criteria

Every Project Manager wants the project be a success. But what is it that defines success? Is it that the project is delivered on time and budget, or that the project deliverables are produced to the level of quality expected? Is it that the customer was kept informed throughout the project and is happy with the result? Or is it simply that the business problem has gone away or the opportunity has been realized as expected?

You need to think about the success criteria carefully and then specify them here. We suggest listing five key success criteria, against which the project will be measured.

The project will be marked as successful if it remains in-use for a year and there is noticeable customer satisfaction. We will check in with our customer regularly afterwards over the course of a year to see if the customer remains satisfied.

3.11 Authorization

This is the section in which your Project Sponsor will authorize the project if they want it to be initiated. If the project is authorized, then you have done a great job in completing this Project Proposal!

Project Sponsor

Customer

Name: Ruthie Halma

Name: Austin Hembrecht

Position: Professor

Position: Vice President

Date: 02 / 22 / 24

Date: 02 / 22 / 24

4 Appendix

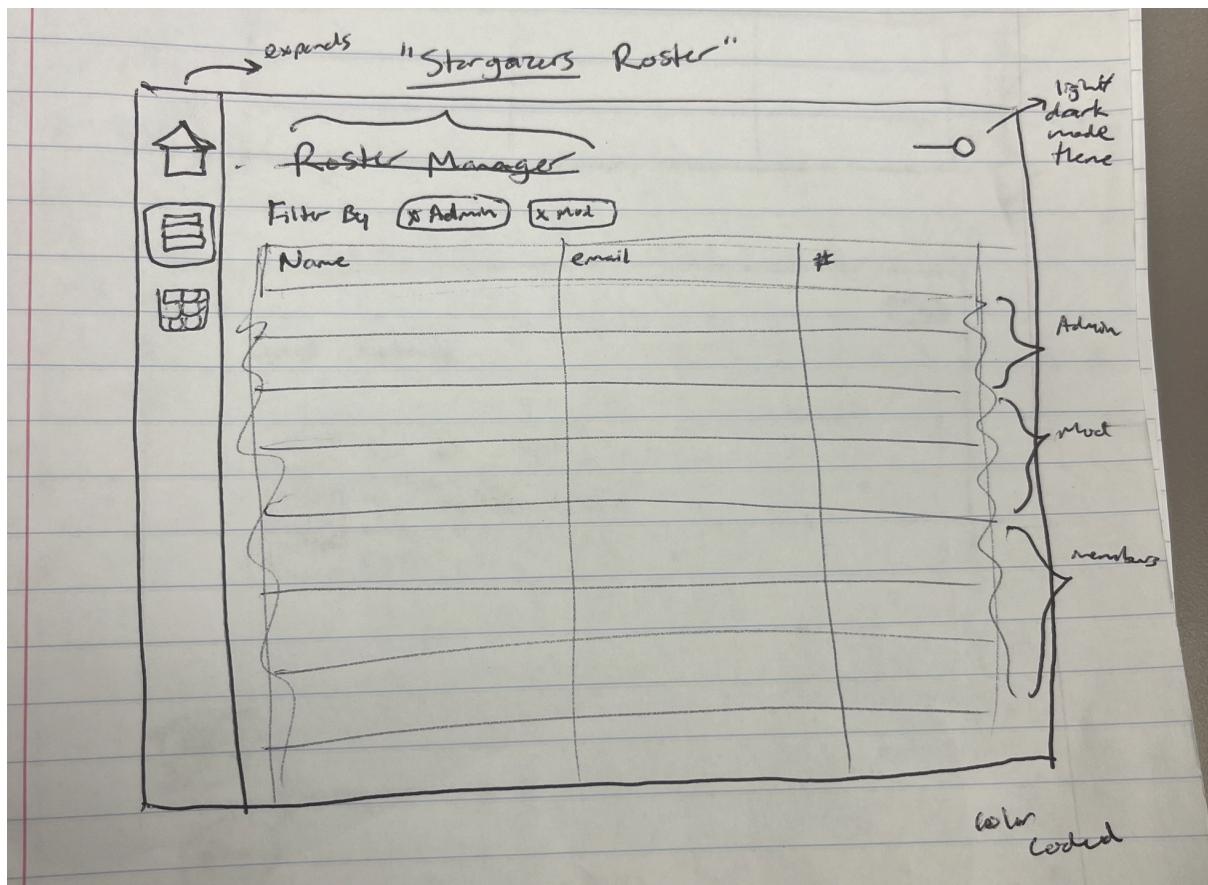
4.1 Supporting Documentation

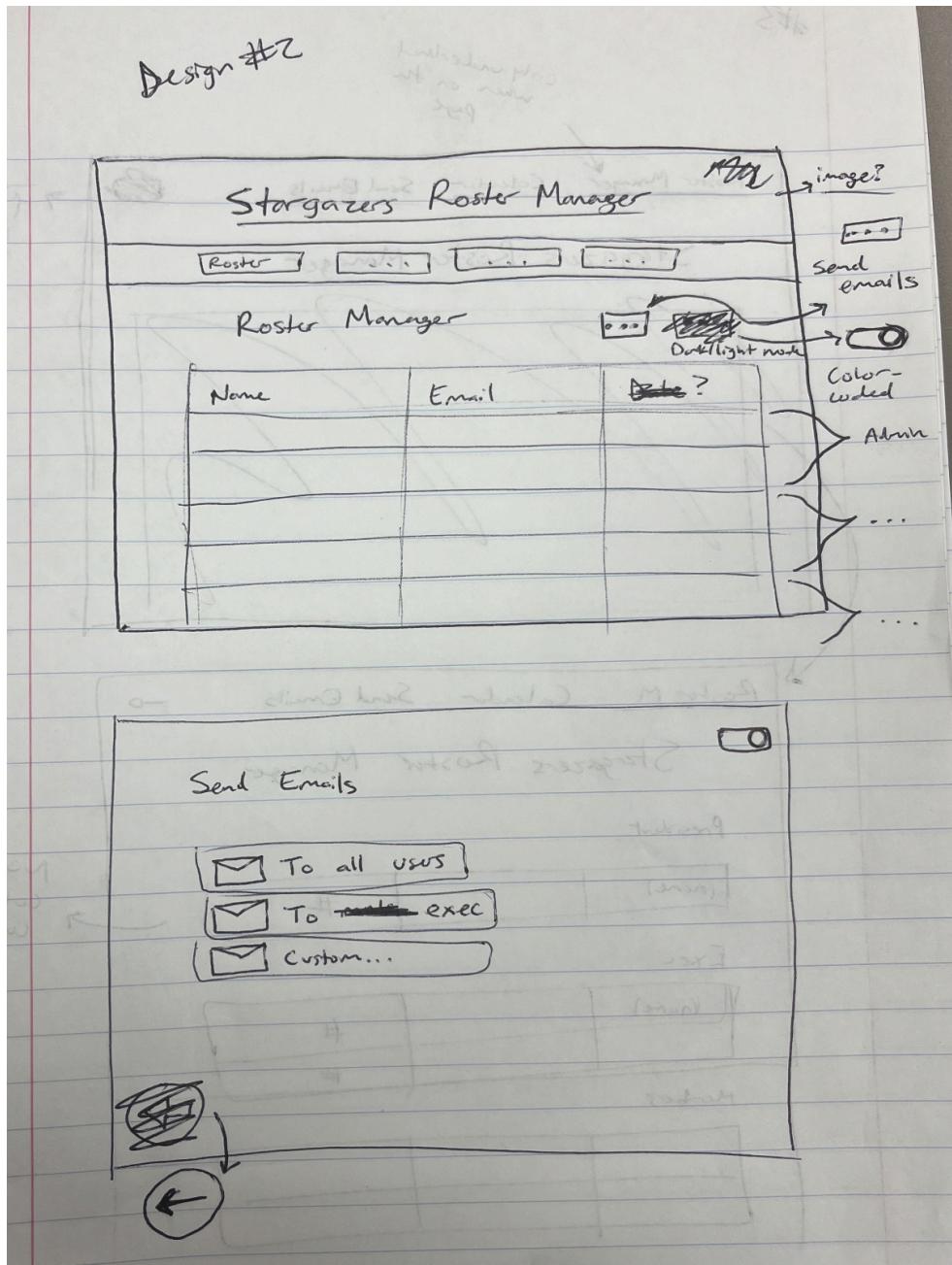
Provide any documentation you believe supports this Project Proposal. It may be:

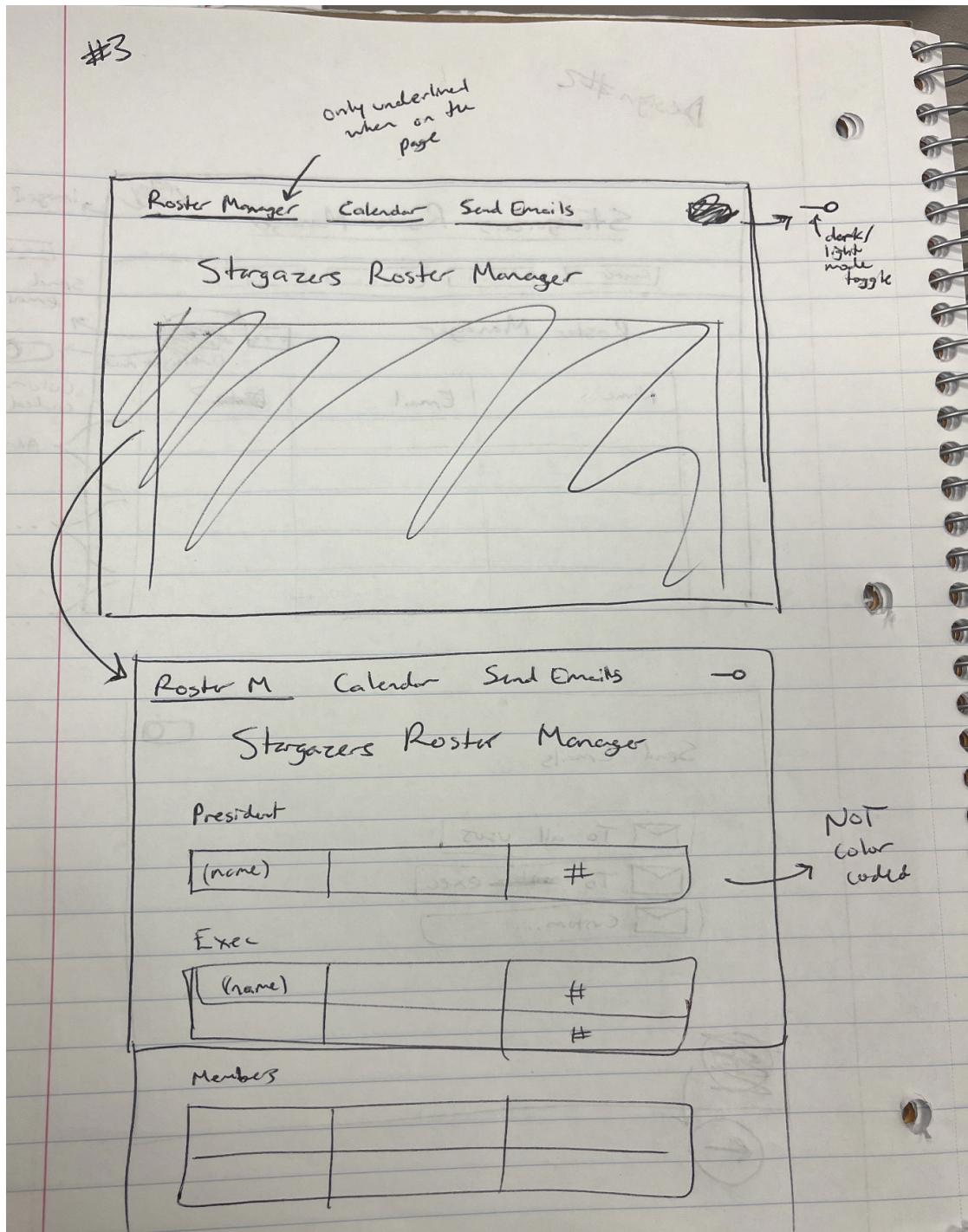
- Company history
- Research materials
- Statistics or estimates
- External quotes or tenders
- Detailed cost / benefit spreadsheets
- Other relevant information or correspondence.



Initial sketches



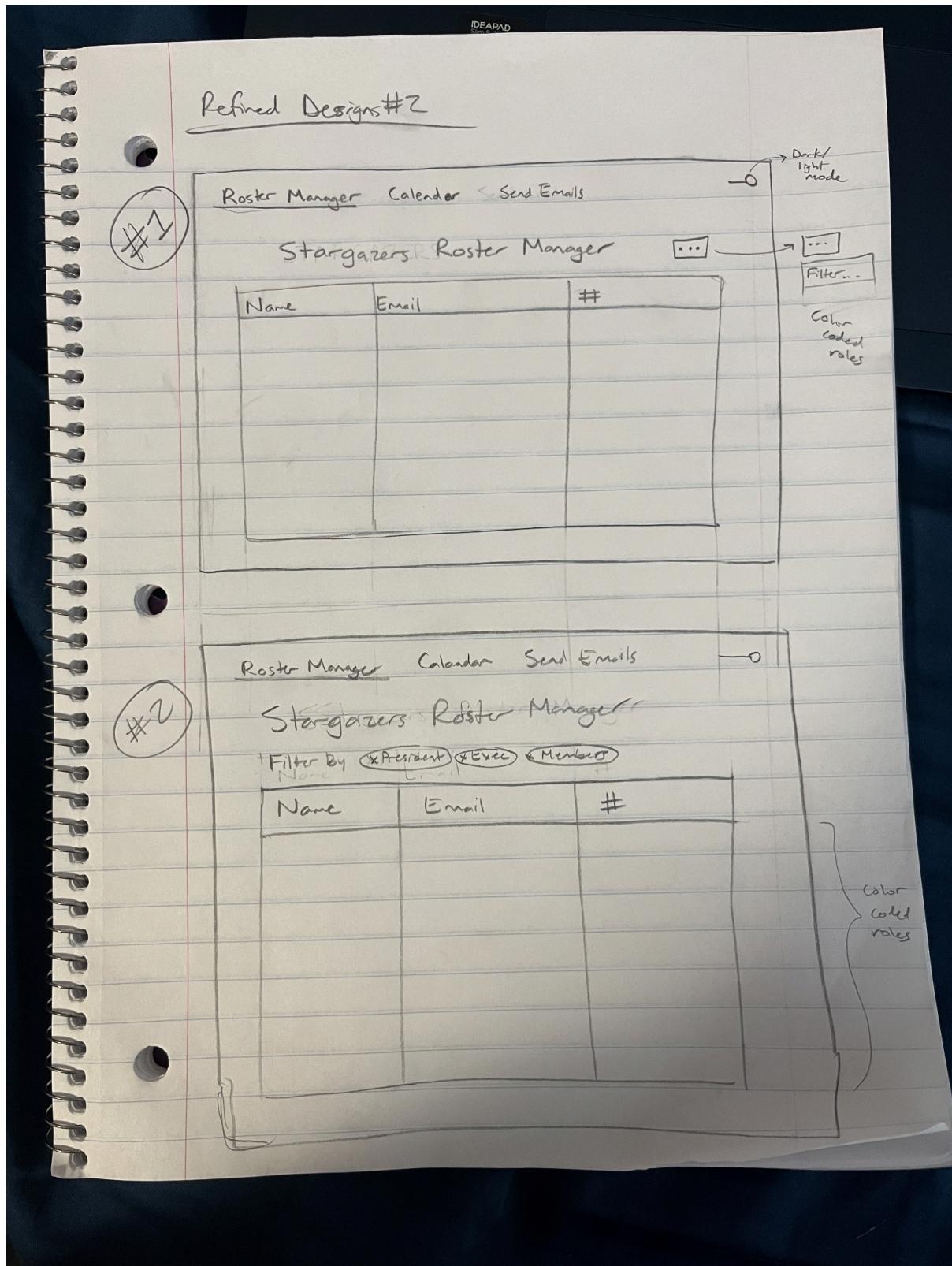




Notes:

Stakeholder liked the overall structure and design of the third sketch. However, the stakeholder wanted to implement a color-coded and compact role design system such as the one in sketches 1 and 2.

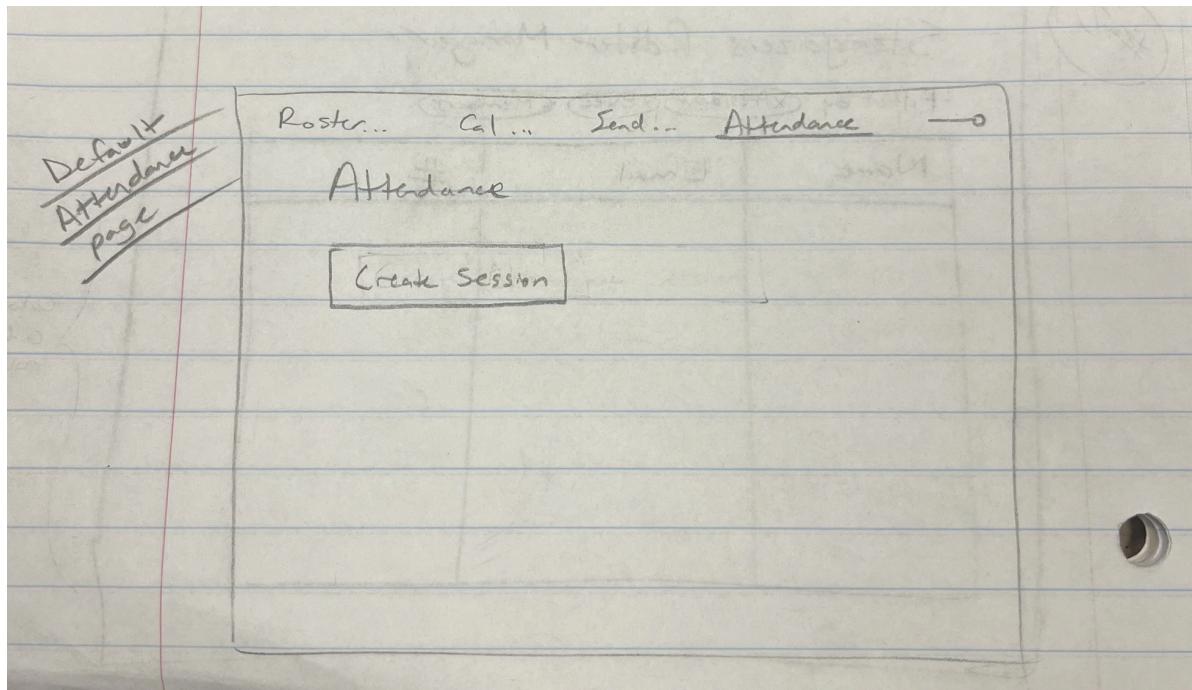
Refined sketches

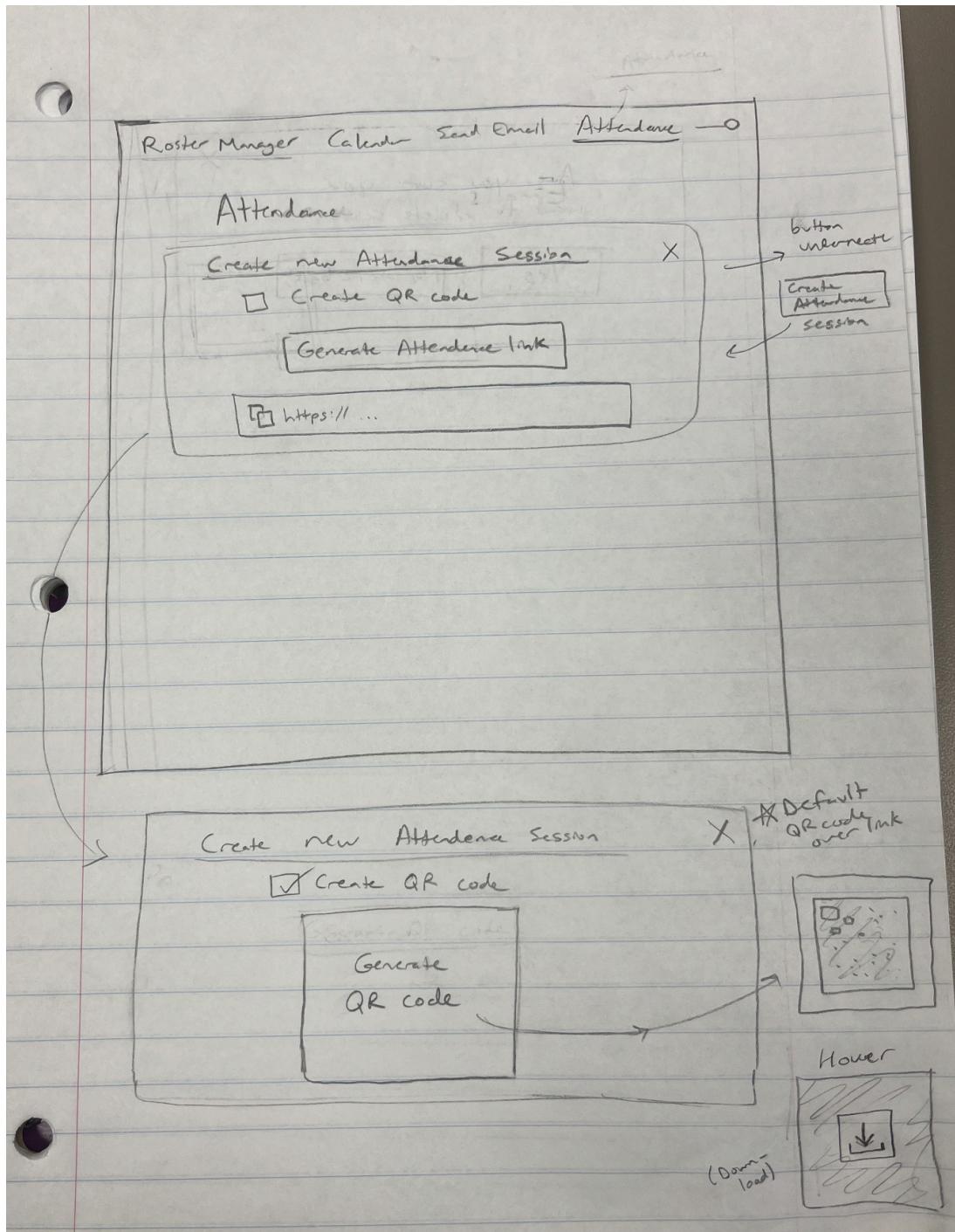


Notes:

Stakeholder liked the second sketch.

Attendance Page Sketches





Notes: Developers and stakeholders identified it would be easier for users to have both link and QR codes at their disposal.

Refined Attendance Sketches

