

# Blueprint: A Framework for Collaborative Success

Requirements Specification & Technical Roadmap

Isaac Trejo Mendoza, Jacob McPherson, Jeongha Park, and Obadiah Sieg

# Introduction



- Problem: group projects are typically hard to manage and the tools out there are far too complicated to warrant using them in the first place.
- Solution: a simple project management web application that is free to use and compares everyone's schedules to find the best time for them to meet and collaborate on group projects.
- Core philosophy: minimalist and student focused.

## Spaces

Everything

**D** Design

**E** Engineering

**P** Product

Dashboards

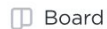
Docs



Project



Box



Board



Timeline



Doc



Whiteboard

## Workload



**Maria**

12 Not done  
1 Done



READY (1)

IN PROGRESS (17)

REVIEW (8)



**Brendan**

23 Not done  
6 Done



### TIME ESTIMATE

5d 15h Not done  
6h Done



19 tasks without estimate

READY (8)

IN PROGRESS (14)

REVIEW (14)



**Amy**

12 Not done  
3 Done



### TIME ESTIMATE

1d 15h Not done  
3h Done



17 tasks without estimate

READY (8)

TIME EST.

User research - P... 2h

Wireframe new... 0.5h

Review & Appro... 2h

IN PROGRESS (2)

REVIEW (3)

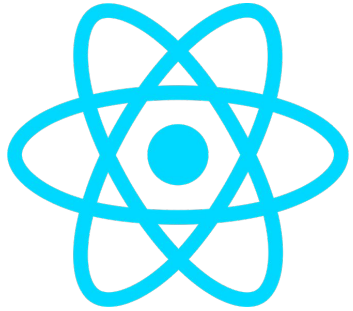
# Overview

- Tools & Technologies
- Project Requirements
- Tentative Schedule

# Tools & Technologies

|          |   |
|----------|---|
| React    | Front end with a component-based, reactive U.I.         |
| Supabase | Back end for a real time database and Google OAuth 2.0. |
| Vercel   | Hosting and deployment of the website.                  |
| Figma    | Design and rapid inspiration of the G.U.I.              |

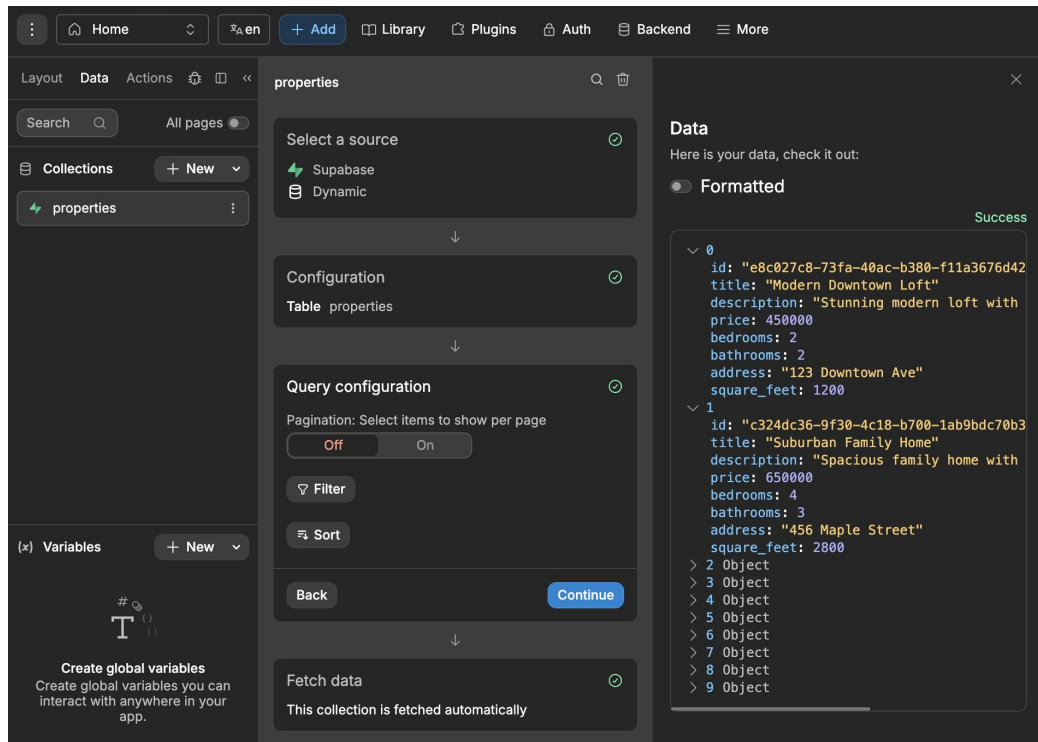
Front End



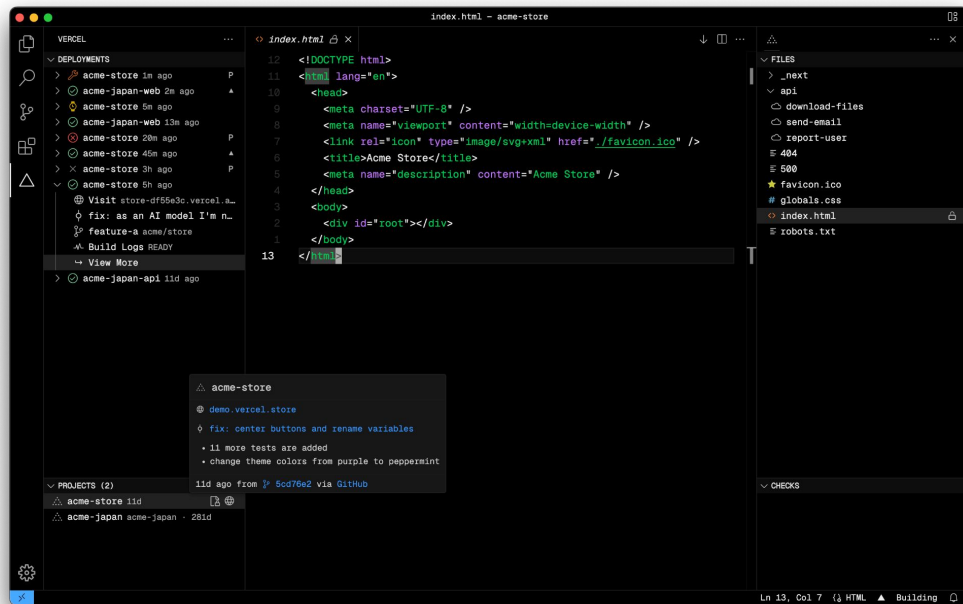
# React

```
render() {  
  return (  
    <React.Fragment>  
      <div className="py-5">  
        <div className="container">  
          <Title name="our" title="product">  
            <div className="row">  
              <ProductConsumer>  
                {(value) => {  
                  console.log(value)  
                }}  
              </ProductConsumer>  
            </div>  
          </div>  
        </div>  
      </React.Fragment>  
    )  
  )  
}
```

# Back End

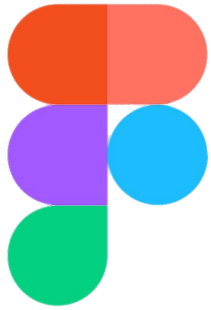


# Server

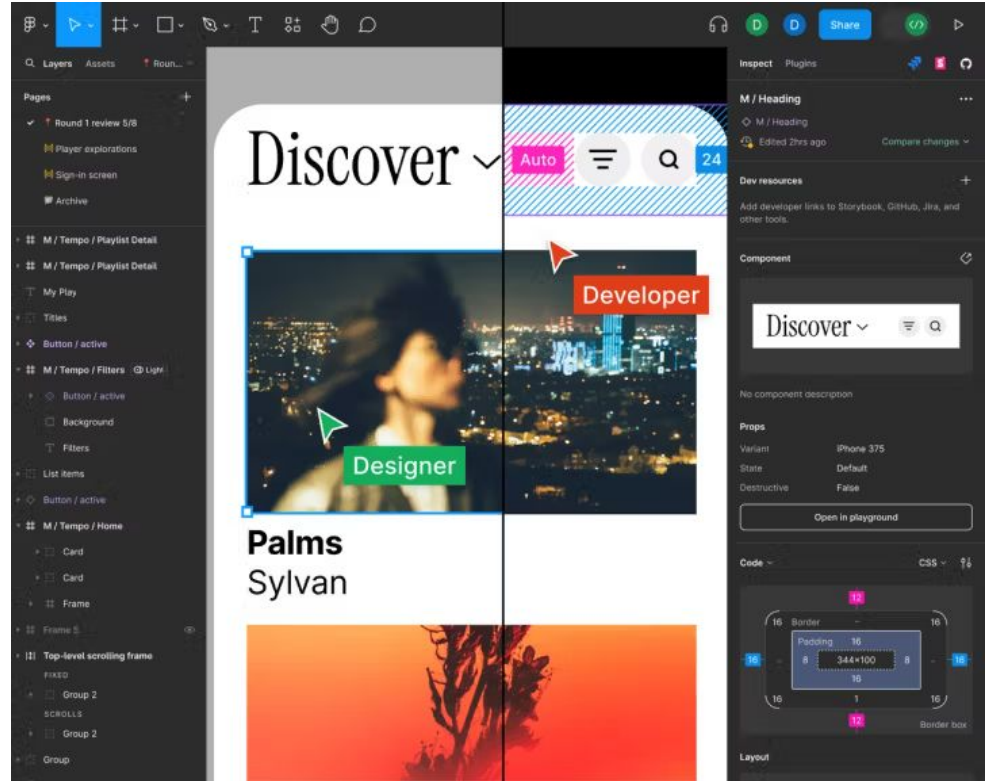




# Additional Tools



# Figma

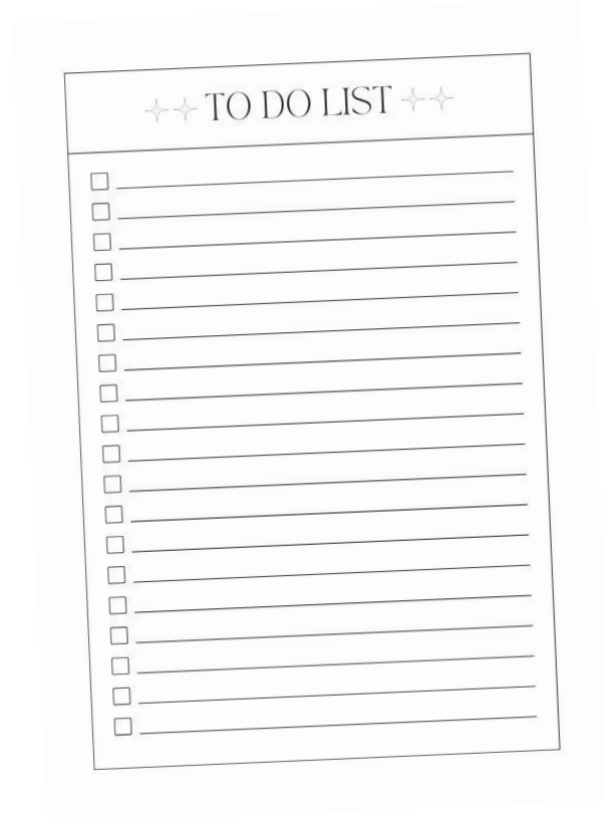


# Project Requirements

- Task Management Component
- Calendar Component
- Notification System
- Design: examples and non examples
- Dashboard

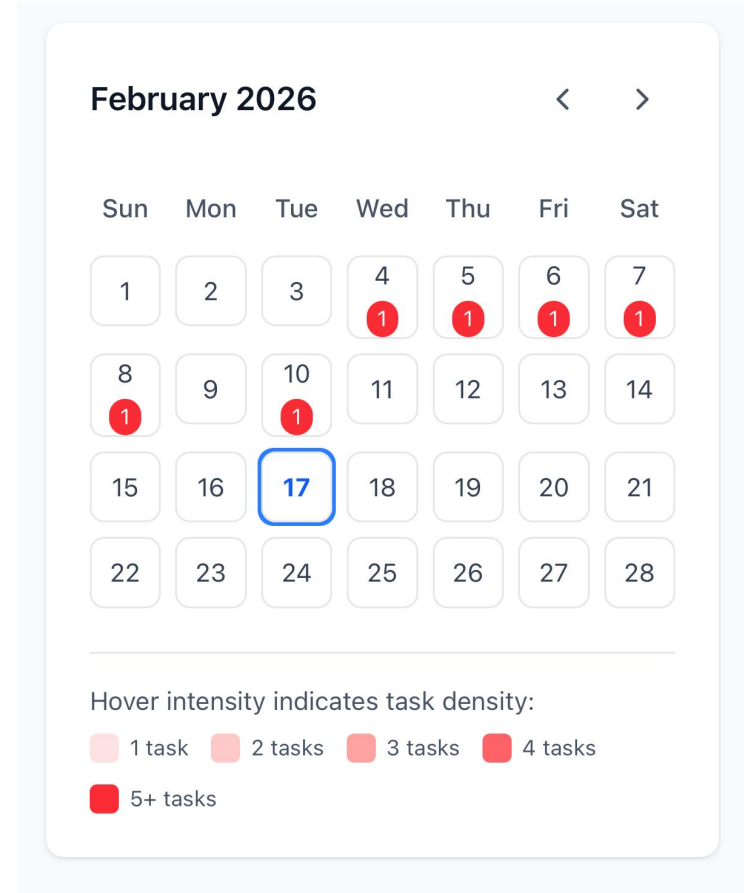
# Task Management Component

- A dynamic task list: gives the user the ability to view the tasks, the members assigned to them, and their priority at a glance.
- Color-coded priorities: red for high, orange for medium, white for low, and green for completed tasks.
- Completion animation for when a task is finished.
- A “Past Tasks” view



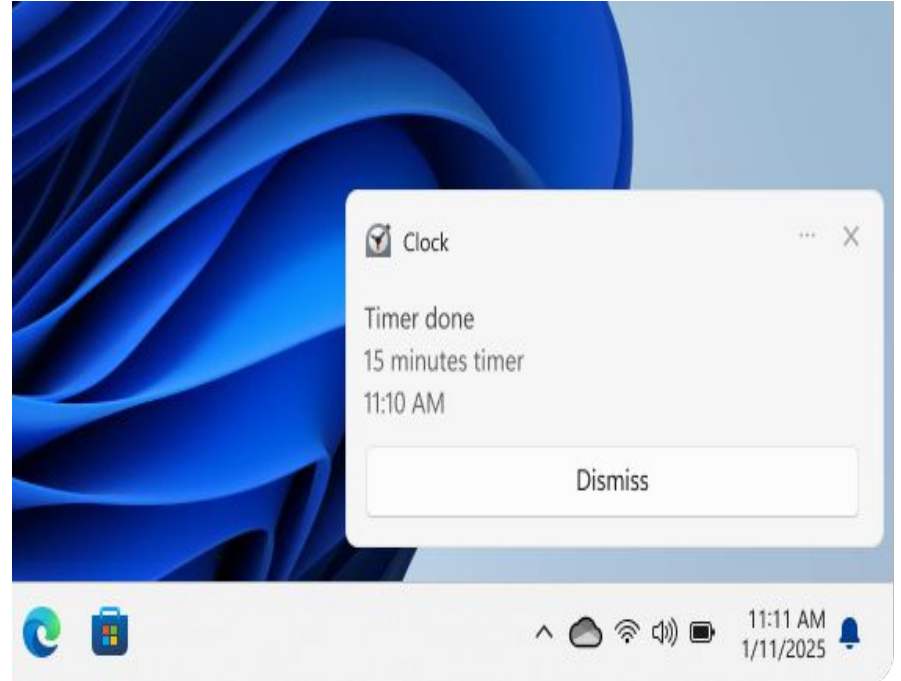
# Calendar Component

- Monthly grid view
- Selection for other months will be above
- The current month will be the default one shown
- Each day on the calendar will have a red indicator depending on if there are any tasks due that day. (The darker the indicator means more tasks due that day)
- Clicking any day on the calendar will show all the tasks assigned to that day
- Tasks will be automatically be “Unassigned” until the users assigns a due date for that specific task



# Notification System

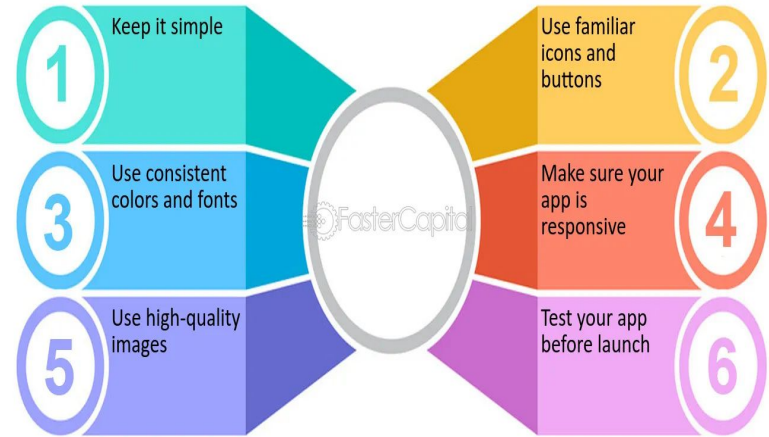
- 24 hours before due dates
- Audible alert
- Title and Task (Details)
- Daylight Saving Time  
Notifications Alert users  
when DST begins or ends



# Design

- Entertaining elements
- Replace the word task with quest
- Quest Rewards - 30 minute break, snack time, Play video games
- Encourage users to enter the work zone comfortably.

## Designing a user friendly interface



# Design Examples

- Minimalist
- Easy to digest.
- No information overload.



**Blueprint**



Continue with Google

Or

By clicking continue, you agree to our [Terms of Service](#) and [Privacy Policy](#)

# Unacceptable Design Examples

[illegible]

| #           | Analysis and Design                                 |         | Build       |         | Test Case Library                           |      | Quality   |         | Implementation                      |         | Key Dates/Notes                  |        |    |
|-------------|---|---------|-------------|---------|---|------|---|---------|-------------------------------------|---------|----------------------------------|--------|----|
| JAMX        | 100%  |         | 95%         |         | 65%   |      | 0%  |         | 0%                                  |         | Need sample ASAP                 | 15-Feb | At |
|             | Schedule  | Good    | Schedule    | Good    | Schedule                                    | Good | Schedule  | Good    | Schedule                            | Good    | Need sample ASAP                 | 15-Feb | At |
|             | Scope   | Good    | Environment | Good    | Scope                                       | Good | Environment   | Good    | Impact                              | Good    | Testing Deployment               | 16-Feb | At |
|             | Requirements  | Good    | Issues      | Warning | Coverage                                    | Good | Defect Count  | Good    | Plan                                | Good    |                                  |        |    |
|             | Resourcing  | Good    | Resourcing  | Good    | Resourcing                                  | Good | Resourcing  | Good    | Risks                               | Good    |                                  |        |    |
|             | Development cannot be completed without sample      |         |             |         | First Cases not progressed as planned       |      | Start date of 17-Feb  |         | Planned with the below project      |         |                                  |        |    |
| SPRT        | 100%  |         | 100%        |         | 100%  |      | 0%  |         | 0%                                  |         | Testing Deployment               | 12-Feb | Gr |
|             | Schedule  | Good    | Schedule    | Good    | Schedule                                    | Good | Schedule  | Good    | Schedule                            | Good    | Testing Complete                 | 4-Mar  | Gr |
|             | Scope   | Good    | Environment | Good    | Scope                                       | Good | Environment   | Good    | Impact                              | Good    | Implementation                   | 18-Mar | Gr |
|             | Requirements  | Good    | Issues      | Good    | Coverage                                    | Good | Defect Count  | Good    | Plan                                | Good    |                                  |        |    |
|             | Resourcing  | Good    | Resourcing  | Good    | Resourcing                                  | Good | Resourcing  | Good    | Risks                               | Warning |                                  |        |    |
|             |   |         |             |         | System ready for testing                    |      | To start on Monday  |         | Too many interdependencies involved |         |                                  |        |    |
| SYX Upgrade | 80%   |         | 80%         |         | 100%  |      | 0%  |         |                                     |         | Impact Analysis                  | 4-Mar  | At |
|             | Schedule  | Warning | Schedule    | Good    | Schedule                                    | Good | Schedule  | Good    | Schedule                            | Good    |                                  |        |    |
|             | Scope   | Warning | Environment | Good    | Scope                                       | Good | Environment   | Good    | Impact                              | Good    |                                  |        |    |
|             | Requirements  | Good    | Issues      | Good    | Coverage                                    | Good | Defect Count  | Good    | Plan                                | Good    |                                  |        |    |
|             | Resourcing  | Good    | Resourcing  | Good    | Resourcing                                  | Good | Resourcing  | Good    | Risks                               | Warning |                                  |        |    |
|             | Some of the team have not completed their analysis. |         |             |         | Work unknown till the analysis is complete. |      | To start on Monday  |         | Too many interdependencies involved |         |                                  |        |    |
| Rules XT    | 100%  |         | 80%         |         | 100%  |      |   |         |                                     |         | Waiting for resolution of issues | TBA    | At |
|             | Schedule  | Good    | Schedule    | Bad     | Schedule                                    | Good | Schedule  | Warning | Schedule                            | Good    |                                  |        |    |
|             | Scope   | Good    | Environment | Good    | Scope                                       | Good | Environment   | Good    | Impact                              | Good    |                                  |        |    |
|             | Requirements  | Good    | Issues      | Risk    | Coverage                                    | Good | Defect Count  | Good    | Plan                                | Good    |                                  |        |    |
|             | Resourcing  | Good    | Resourcing  | Good    | Resourcing                                  | Good | Resourcing  | Good    | Risks                               | Good    |                                  |        |    |
|             | Too many issues have surfaced in the build phase.   |         |             |         |   |      | To be decided. Duration could be underestimated.            |         | Not planned yet.                    |         |                                  |        |    |
| BIXPT       | 100%  |         | 80%         |         | 100%  |      | 0%  |         |                                     |         | Testing                          | 17-Feb |    |
|             | Schedule  | Good    | Schedule    | Good    | Schedule                                    | Good | Schedule  | Good    | Schedule                            | Good    | Implementation                   | 18-Feb |    |
|             | Scope   | Good    | Environment | Good    | Scope                                       | Good | Environment   | Good    | Impact                              | Good    |                                  |        |    |
|             | Requirements  | Good    | Issues      | Good    | Coverage                                    | Good | Defect Count  | Good    | Plan                                | Good    |                                  |        |    |
|             | Resourcing  | Good    | Resourcing  | Good    | Resourcing                                  | Good | Resourcing  | Good    | Risks                               | Good    |                                  |        |    |
|             |   |         |             |         |   |      | Resource on planned leave. Duration also may not be enough. |         | Planned on 18th Feb.                |         |                                  |        |    |

[illegible]



## Trendline

☒ Enabled

## Group by

☒ Day☐ Week☐ Month

## Filters

## Lists

- ☐ Select all
- ☐ To do
- ☒ Development
- ☒ Code review
- ☒ Code review (Done)
- ☒ Testing
- ☒ Testing (Done)
- ☒ Deployment
- ☒ Done

## Labels

- ☒ Select all
- ☒ Expedite
- ☒ Fixed Delivery Date
- ☒ Intangible
- ☒ Standard

## &gt; Members



Cumulative Flow Diagram



Cycle Time Scatterplot



Cycle Time Breakdown Chart



Cycle Time Histogram



Aging Chart



Throughput Run Chart



Throughput Histogram



Flow Efficiency Chart

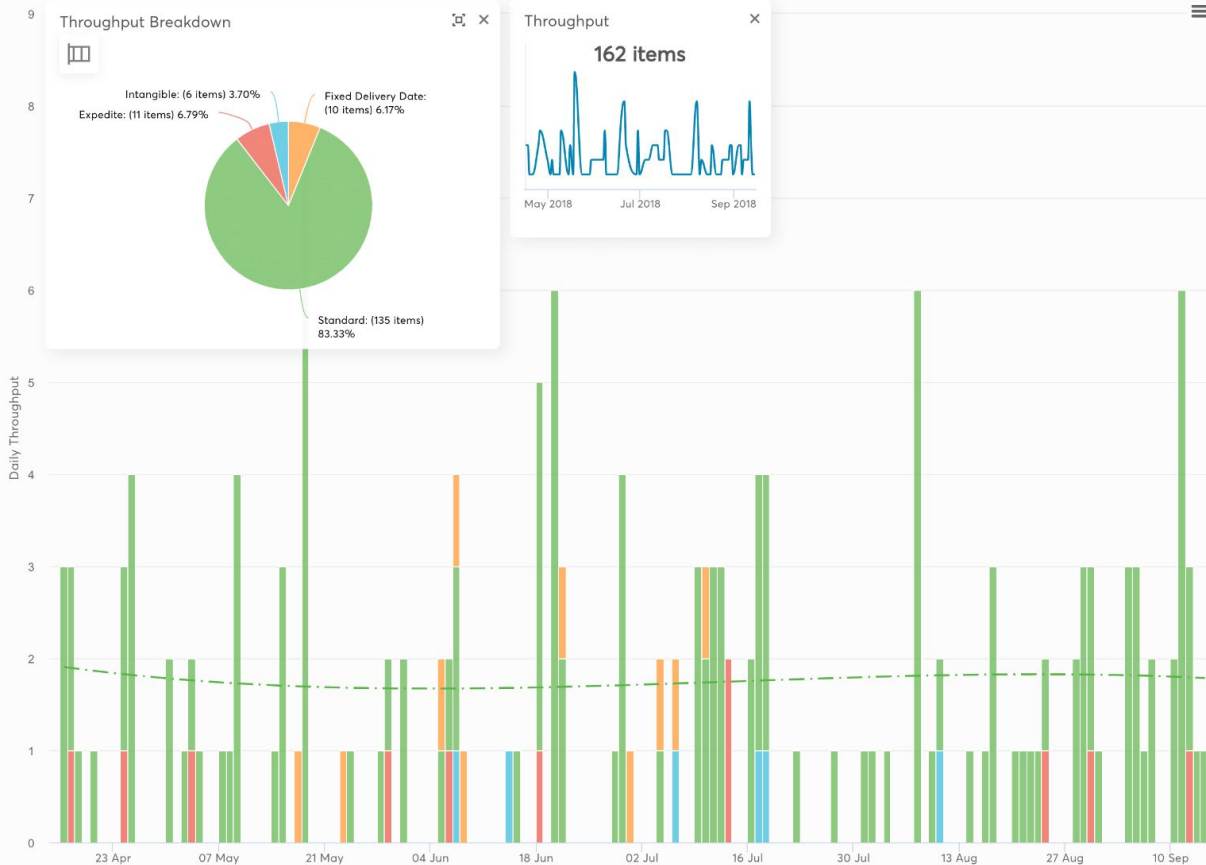


Due Date Performance Chart



Monte Carlo: Delivery Date

## Throughput Run Chart ⓘ



Home

My work

Lindy's Worksp...

Search

Lindy' Library

Project Overview

Summer 2023

Creative Team Planning

New Dashboard

Sneaker Scope

Customer List

See It All

Sneaker Scope

Gantt

Sneaker Scope

Book Deliveries

Book Deliveries

Book Deliveries Dashboard

New Board

## Book Deliveries



Activity

Invite / 1



Main Tab...

New Item

Search

Person

Filter

Sort

Hide

...

Integrate

Automate

New Board

New Doc

New Dashboard

Choose from templates

Import data

Apps

New Form

New Folder

Item

Driver

Vehicle

Date

Hours

Van 1

Jul 9

1

Truck

Jul 13

3

Van 2

Jul 14

2

Bicycle

Jul 25

1

Van 1

Jul 18

5

Van 2

Jul 20

2

The Fountainhead

+ Add Item

Kids Fiction

Item

Driver

Vehicle

Date

Hours

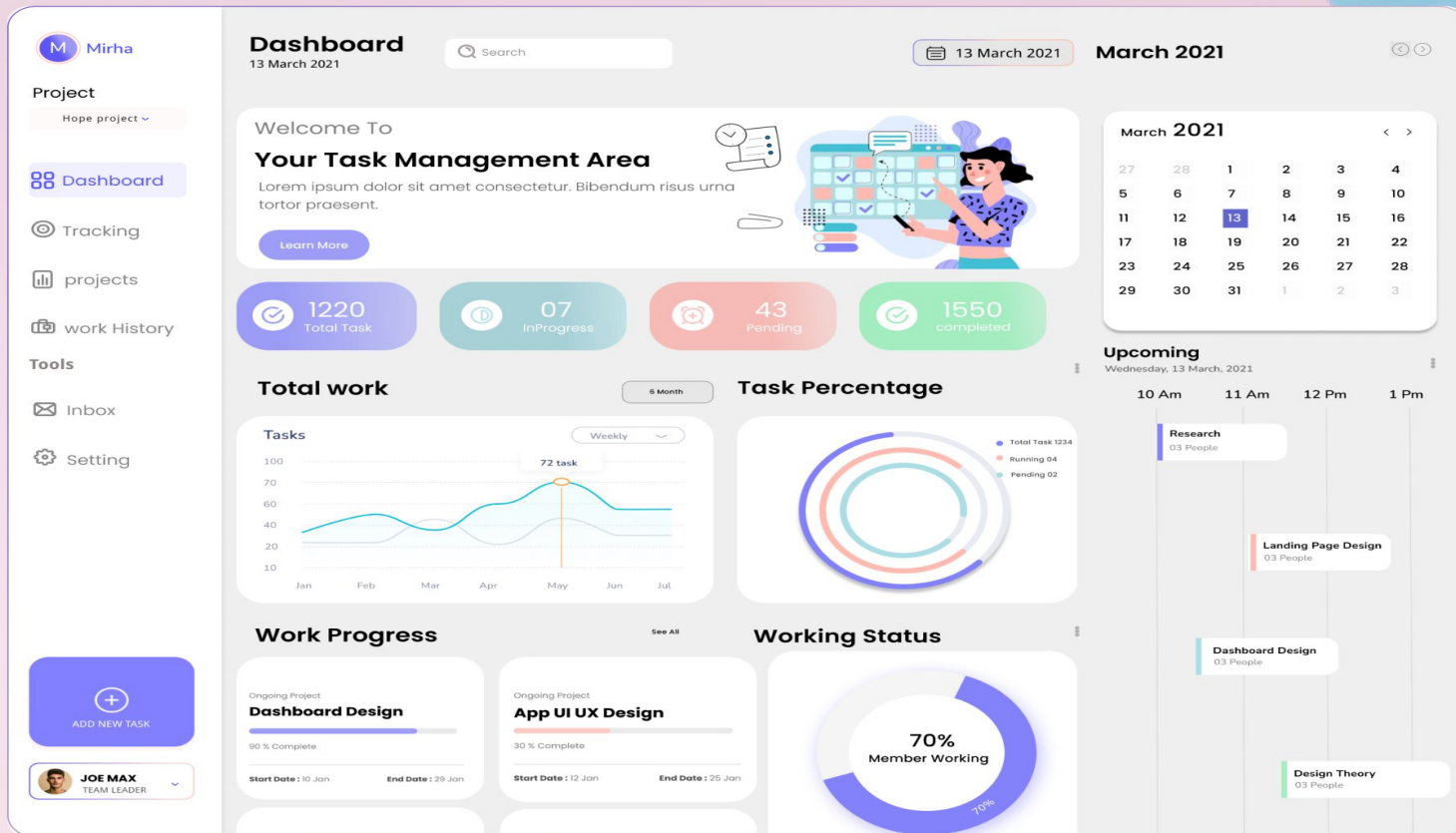
James and the Giant Peach



Truck

Jul 13

1



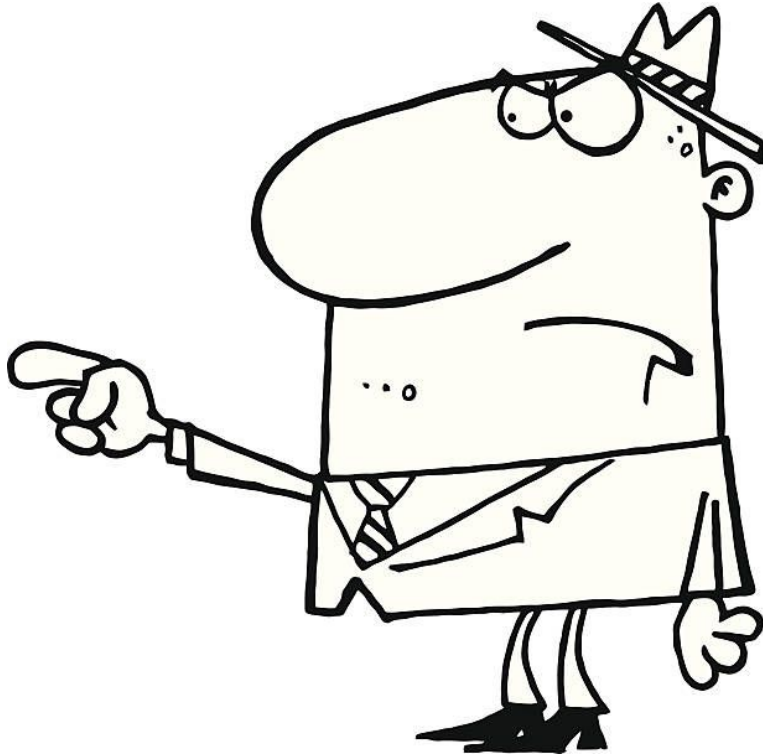
# Dashboard



A completion bar to show the user's progress.



# Roles & Permissions



- Every user can be assigned a role from the creator (“Founder”) of that specific Blueprint
- These roles are Manager and User
- Managers will have full “Create, Read, Update, and Delete” privileges or (CRUD) for every tasks and members under the Blueprint
- Users can update their own assigned tasks and view the project’s overall status

# Tentative Schedule

|                       |  |
|-----------------------|--|
| Week 1: Feb 9-15      | Finalize requirements document, initialize GitHub, and setup Supabase and Vercel         |
| Week 2: Feb 16-22     | Begin the front end with React and configure the database with Supabase                  |
| Week 3: Feb 23-Mar 1  | Implement Google OAuth and begin laying out the dashboard                                |
| Week 4: Mar 2-8       | Create the task list, calendar components, and hooks for the database                    |
| Week 5: Mar 9-15      | Implement the task list and calendar and begin making the logic for the completion bar   |
| Week 6: Mar 16-22     | Create and implement the notification system, implement roles, and test for bugs         |
| Week 7: Mar 23-29     | Conduct an overall assessment of the website and fine tune the website with “Past Tasks” |
| Weeks 8-12: March-May | Create and implement gamification and ChatGPT API call, if time permits                  |

# Conclusion



- Blueprint is the solution to group projects being hard to manage and there simply being too many project management tools out there that aren't simple enough for an academic environment
- Blueprint will be simple and easy-to-use, catering specifically to students
- We will be using React, Supabase, Vercel, and Figma to do this
- If time permits, we will implement gamification affects and an API call to Chat GPT to make suggestions for the user

Questions?