Ursula's Pitch Team 21

Problem

Many individuals in the workforce, such as aspiring software developers like ourselves, have difficulty organizing and managing their personal tasks. In addition, employers and project managers are desperate for simple and reliable feedback on which tasks are consuming their employees' time and causing them struggle.

Solution

We can develop a way for individuals to create and organize their tasks by their status, task type, notes associated with the tasks, and the expected hours that the task will take. The to-do list will serve as a list of planned and in-progress tasks, and once the tasks are complete they will be moved to a log for completed tasks. Then, depending on the hours it takes for the task to be completed from start to finish, we can assess whether it is completed in the time predicted and reflect that in the log which can be used for analytics.

Features

1. **CRUD Features**
- <u>Create</u>: Create Task with required fields for task name, estimated hours to complete and optional fields for deadline, description, additional comments
- <u>Read</u>: Can view a dashboard page displaying all current tasks
- <u>Update</u>: Click edit button to modify any of the tasks fields
- <u>Delete</u>: When a task is marked as complete the user is asked to fill in how many hours the task took

2. **Completed task log** - Once a task is completed it will be saved to the user's log where the data can be easily accessed for analysis. The completed tasks will also store both the estimated and actual time of completion.

3. **Analytics** - This data can be analyzed and displayed as a graph of the distribution of the estimated and actual time difference for tasks, and organized by task type, which can be useful to employers.

Purpose of the Features

1. CRUD features of adding, reading, updating, and deleting information allow us to manage information in the to-do list in an easy and efficient way.

2. The completed task log allows us to keep track of all the task that have been accomplished and the order they were completed in

3. Analytics page will display a distribution of the efficiency that tasks are completed by which can allow people to see what tasks are completed faster/slower than expected, so they can adjust the expected time for future tasks.

Priorities of the Features

1. We will prioritize the CRUD features of adding, reading, updating and deleting as it is the main backbone of our website. As long as the users are able to use these features, then we will have accomplished our goal of creating a TO DO List application.

2. The next priority will be the completed task log as it is simply a nice way of displaying all the tasks that have already been completed. It allows the user to have a better experience using our application as they can keep track of their completed tasks.

3. The last item on the list that we will prioritize is the Analytics page as we believe this item is also not necessary but will provide excellent statistics and insight for the user to understand how they can improve creating more realistic deadlines for their tasks.

Expected Time for each Feature

1. For the content of the website, we will use HTML5 and hope to spend about **3 days** on it as there will not be much content on it initially since the purpose of the application is for the user to create the content to keep track of themselves.
2. For the aesthetics of the website, we will use CSS and hope to spend about **4 - 5 days** on it including finalizing and implementing it.
3. For the functionality of the website, in particular the CRUD features, we will use JavaScript and plan to split into groups to tackle each feature. We hope for the features to be fully functional and tested within **9 - 12 days.**
4. For the implementation of the log page, we hope to spend about **7 days** on it. This is subject to change as the end of the quarter draws near and we get more busy with other commitments.
5. For the implementation of the analytics page, it is tentative if we will manage to fully implement it as the analytics page is unnecessary and only provides a unique feature for our website. If time allows, we hope to spend **4 - 5 days** implementing and testing it.

User Personas and User Stories

View the User Personas and User Stories on [Miro](#).

User Personas

Who will be using our website?

- People who want to organzie their tasks

Software Engineers in the Industry

Eric Smith

Demographics
Age: 42
Work: Senior Software Engineer
Family: Married, 2 children
Location: San Diego, California

Quote
"I am looking for an easy to use software that allows me to schedule my day to day tasks easily so that I can focus more on creating new software"
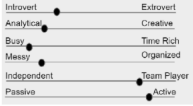
Bio
Bob is a senior software engineer in the industry and has been working for the past 20 years. He spends most of his time in meetings brainstorming and coming up with new ideas for software to develop.

Personality

Introvert	Extrovert
Analytical	Creative
Busy	Time Rich
Messy	Organized
Independent	Team Player
Passive	Active

Goals
- A user friendly software that keeps track of his tasks.
- Software should be able to create tasks to do, read the already created tasks, update the tasks and delete them once I am done.
- Focus more on creating software and spending less time organizing his tasks to do.

Brands

Aspiring Software Engineers

Grace Ursula

Demographics
Age: 19
Work: College Student
Family: Father, Mother, 2 siblings
Location: Irvine, California

Quote
"I am currently taking a class in Software Engineering and learning how to work in a group. I would like to use a software that allows me to keep track of tasks to do."

Bio
Grace is a college student who has an internship for a software compnay. She is struggling to balance her internship and school and is looking for a way to keep all of her tasks in order.

Personality

Introvert	Extrovert
Analytical	Creative
Busy	Time Rich
Messy	Organized
Independent	Team Player
Passive	Active

Goals
- A software that allows me to keep track of my teams and I's to do lists.
- The software should be easy to use so that I can focus on learning the important software development practices.

Brands

Statement of Purpose

We wanted to revolutionize the way people can keep their lives organized. We hope this will help improve our users' mental health and allow them to thrive in both their personal and professional lives. We also want to help our users and possibly the user's boss with a quick, readable analysis of which kinds of tasks they are having trouble with to help them recognize areas that need extra help. Ursula loves improving productivity and happiness for everyone who uses our software.

Systems Diagram

View a clearer picture of the diagram here.
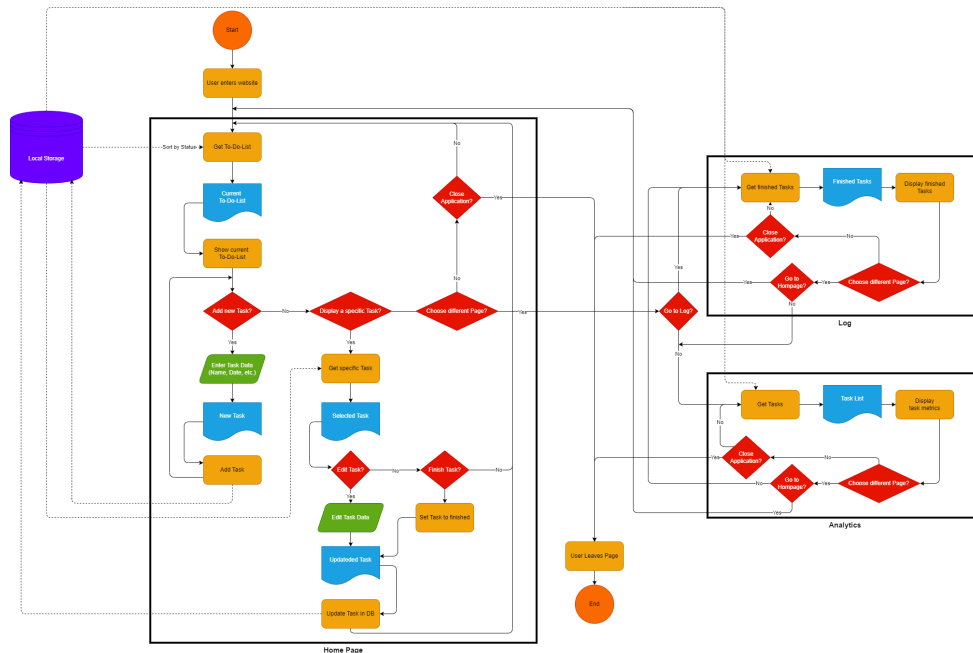
WireFrame Diagram

View the whole wireframe here.

Home Page

| Ursula's To Do List | View Log | View Analytics |

Task List ⊕

Name	Estimated time required	Status	Actions
Task 1	2 hr 30 min	In Progress	Finish Edit Delete
Task 2	3 hr 10 min	In Progress	Finish Edit Delete
Task 3	5 hr 50 min	In Progress	Finish Edit Delete
Task 4	10 hr 30 min	Planned	Start Edit Delete
Task 5	15 hr 20 min	Planned	Start Edit Delete
Task 6	21 hr 40 min	Planned	Start Edit Delete

Log Page

| View Ursula's To Do List | Log | View Analytics |

List of Logs

Name	Type	Time Stamp
Task 1	Front-End	2022-10-28 09:37:14
Task 2	Front-End	2022-10-28 10:31:10
Task 3	Back-End	2022-10-29 05:12:16
Task 4	Back-End	2022-10-30 15:32:41
Task 5	Debug	2022-10-30 18:16:12
Task 6	-	2022-10-30 21:34:11

Analytics Page

| View Ursula's To Do List | View Log | Analytics |

All Analytics

Name	Expected Duration	Total Duration	Evaluation
Task 1	0 hr 30 min	2 hr 30 min	☹
Task 2	1 hr 15 min	1 hr 10 min	😐
Task 3	1 hr 45 min	1 hr 10 min	🙂
Task 4	2 hr 15 min	-	-
Task 5	3 hr 25 min	-	-
Task 6	4 hr 50 min	-	-

Roadmap of our Project

Week	Monday	Wednesday	Friday	Sunday
6	Complete Pitch items and submit to the TA for feedback	Present the pitch to the TA Once pitch is approved, begin pipelining process	Begin writing HTML5 for the application Team meeting to finalize aesthetics of website	Pipelining process should be completed HTML5 for the application should be completed and peer reviewed, pushed to repo Aesthetics of the website fully finalized and ready to implement
7	Begin CSS implementation for the application	Begin brainstorming and drafting the code needed for the CRUD features	CSS implementation should be completed and peer reviewed at the team meeting, pushed to repo Team meeting to finalize CRUD features and assign tasks	Begin implementation of CRUD features using JavaScript
8	Continuation of development of CRUD features using JavaScript	Team meeting to discuss any blockers regarding CRUD features using JavaScript	CRUD features are completed and begin testing	Completed testing, report back to the team regarding any bugs found Begin Debugging
9	Debugging Week	Debugging Week Half the team begins to approach implementation of the log page	Team meeting to discuss any blockers regarding CRUD features If everything functional, begin implementing the log page	Continue implementing the log page
10	Continue implementing the log page	Team meeting to discuss any blockers regarding the log page Continue implementing the log page and begin testing	Log page should be completed and presented during the team meeting or if not, present any blockers During team meeting, discuss possibility of	Log page completed or continue debugging

			implementing Analytics page Log page debugging	
11	For those who are willing, begin implementing analytics page	For those who are willing, begin implementing and testing the analytics page Decide if Analytics page should be included in the final project		

Technologies

Front-End: HTML5, CSS, JavaScript

Back-End: Not required as we are implementing local first, local storage

Communication: Slack

Version Control: GitHub

Hosting: GitHub Pages and locally

UI/UX Design: Figma

Brainstorming and User Research tools: Miro

Risks, Rabbit Holes, and No Gos

Risks

1. Underestimation of time regarding implementation of features
    a. We need to ensure we stick to the deadline and project roadmap as we only have a limited amount of time (5 weeks) to complete this project.

2. Implementing too many unnecessary features
    a. We need to ensure we do not spend too much time implementing features that are unnecessary such as the completed log page or the analytics pages. Instead we must ensure the basic CRUD applications are completed, functioning 100% and bug free as these features are the backbone of the application and without it, the TO DO List will fail.

Rabbit Holes

1. We should be aware of the technical requirements and respect the difficulty of the task although it is just implementing CRUD features.
    a. Although CRUD features may not sound difficult, we must understand that learning web development is arguably one of the hardest software development challenges especially since we are combining HTML5, CSS and JavaScript.
    b. JavaScript has many loopholes to it and we have learned in the lab how weak typing can cause hours and hours of confusion.

2. Is there a hard decision to settle in advance? We need to ensure we apply progressive enhancement to our application
    a. Progressive enhancement is the ideology of technologies being built on top of each to form a solid foundation and base for the other technologies on top to rely upon. We need to start with the content of the website by implementing the HTML5 first and once we are completed, we will implement aesthetics of the application by using CSS as it is used to build off of HTML5. Lastly, we will then implement the functionality of the website by implementing the JavaScript to ensure the CRUD features are working. By following this ideology, we will always deliver the best possible experience to the user.

No Gos

1. We Must Stick To Local First
    a. Although given limited restrictions on the application, we need to remember that we must implement the application using Local First and once we have achieved this only should we consider expanding to the Cloud.

2. We Must Use HTML5, CSS, and JavaScript
    a. The other restriction that we are given is that we should create our application using HTML5, CSS, and JavaScript as this will give us the highest chance of our application being successfully functional within the time period as we will be able to seek help from TA's and Tutors.
    b. As mentioned by Professor Powell in lecture, he mentioned his past experiences of groups using other technologies to completely fail and were unable to meet the deadline due to the fact that they underestimated the complexity and difficulty of using those technologies such as React. We must stick to HTML5, CSS, and JavaScript to ensure our highest chance of success in this class.

3. We Must Avoid Third Party Dependencies
    a. As mentioned by Professor Powell in lecture, he mentions that we should avoid third party dependencies as much as possible because if the third party were to ever remove their software or library, then our application relying on it would fail completely and would be nonfunctional.