Stock Prediction App Design

Dennis

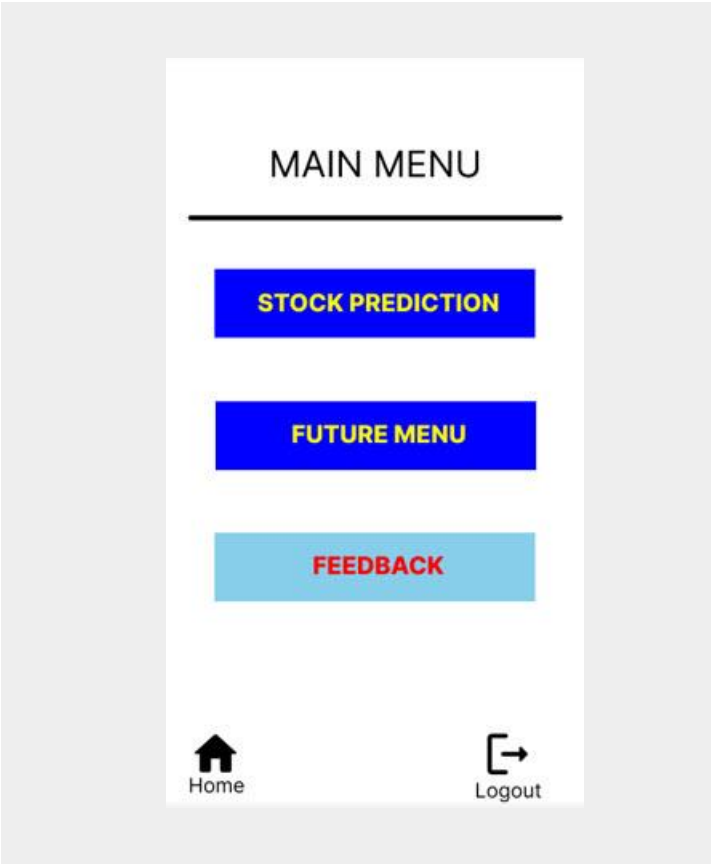
Project overview

The product:

A grocery shop in a town wants an app which is able to predict stock levels after a certain time frame.

Project duration:

June 2022 - Dec 2022



Project overview

The problem:

Predict stock levels in a shop for stock replenishing in advance.

The goal:

Create an app using machine learning models for shop employees .

Project overview

My role:

UX designer for Company _____.

Responsibilities:

Conducting interviews, paper and digital wireframing, low and high-fidelity prototyping, conducting usability studies, accounting for accessibility, and iterating on designs.

Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

User research: summary

There is a preliminary interview done with some shop employees to get what they want for their needs.

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User research: pain points

1

Screen Scrolling

Need scrolling a lot if many items entered

2

Confusion

Menu interfaces can be confusing at times

3

Missing User Guide

Since the app is very new, it will be good to include a built in user guide

Persona: Participant **A**

Problem statement:

A is a senior employee who needs to use the app on the go because he is outside office a lot.

Participant A

Age: 35
Education: BA
Hometown: S----------
Family: Single
Occupation: Senior Officer

"Exciting opportunities in Artificial Intelligence"

Goals

- Able to predict results with multiple inputs

Frustrations

- Too much screen scrolling
- Confused interfaces

Participant A needs to use the application to predict stocks level for several products at one go. He prefers to be able to use the mobile app on the move to find out stocks levels in the shop.

User journey map

This is how user A journey map

Persona: Participant A

Goal: Predict stock levels for several items

ACTION	User Login	Menu Selection	Item Inputs	Processing	Results
TASK LIST	Tasks A. Enter UserID B. Enter Password C. 2 Factor Auth	Tasks A. Select Task	Tasks A. Enter item B. Enter Period	Tasks A. Wait for results	Tasks A. Returns the predicted stock levels
FEELING ADJECTIVE	Anxious of not login correctly	Happy in entering data	Angry if enter incorrect data	Impatient if process too long	Satisfied with results
IMPROVEMENT OPPORTUNITIES	Single Sign On feature	Bigger fonts or smooth selections	Allow auto correction option	Optimize the machine learning model	Better clarity and explaination

Starting the design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies

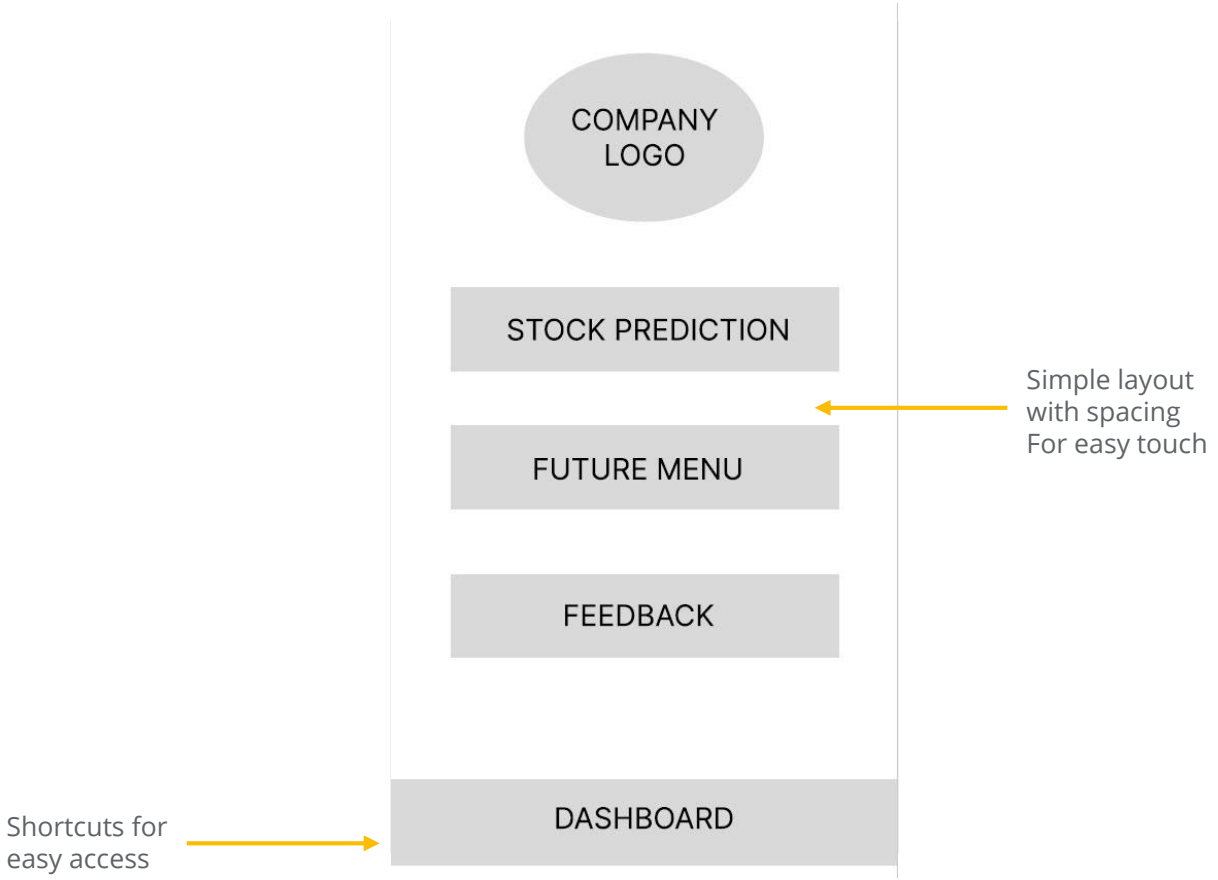
Paper wireframes

I did a rough logical step by step journey that the user will make. Modifications will come later after first usage study.

Image of paper wireframes including five different versions of the same screen and one image of the new, refined version

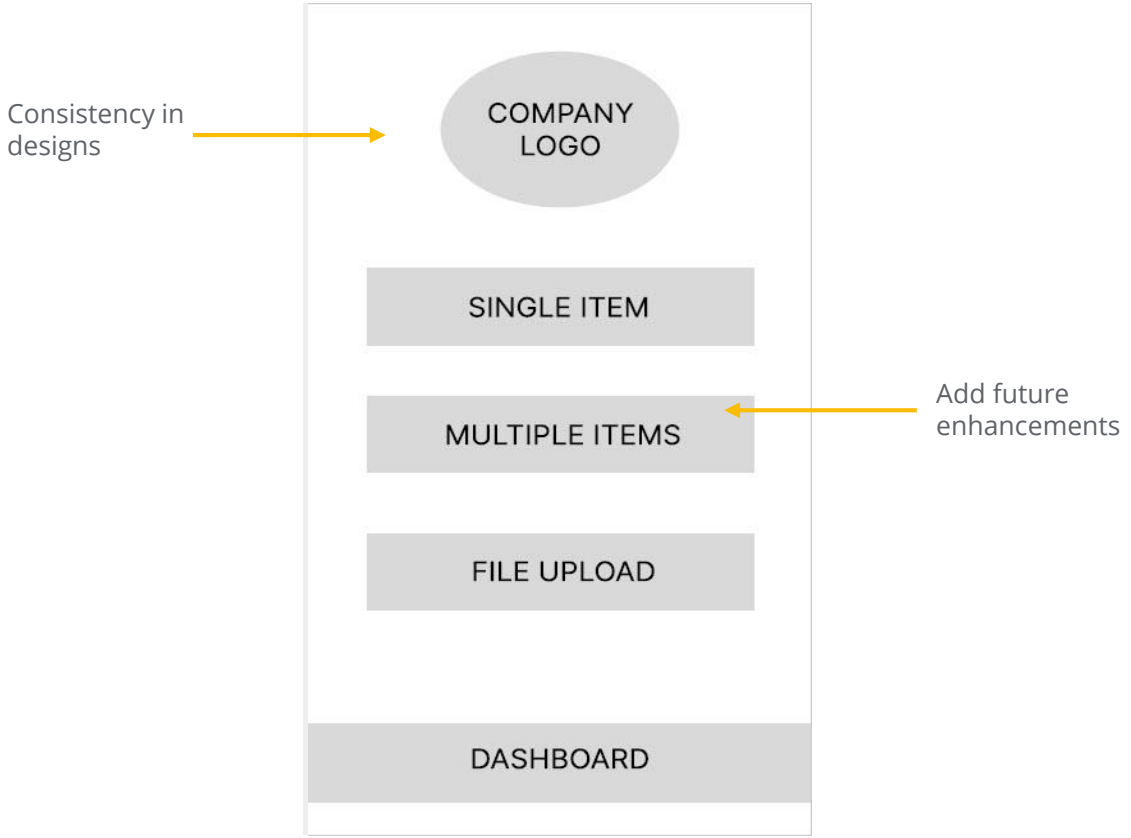
Digital wireframes

A simply layout was proposed for a quick and easy way for users to start with.



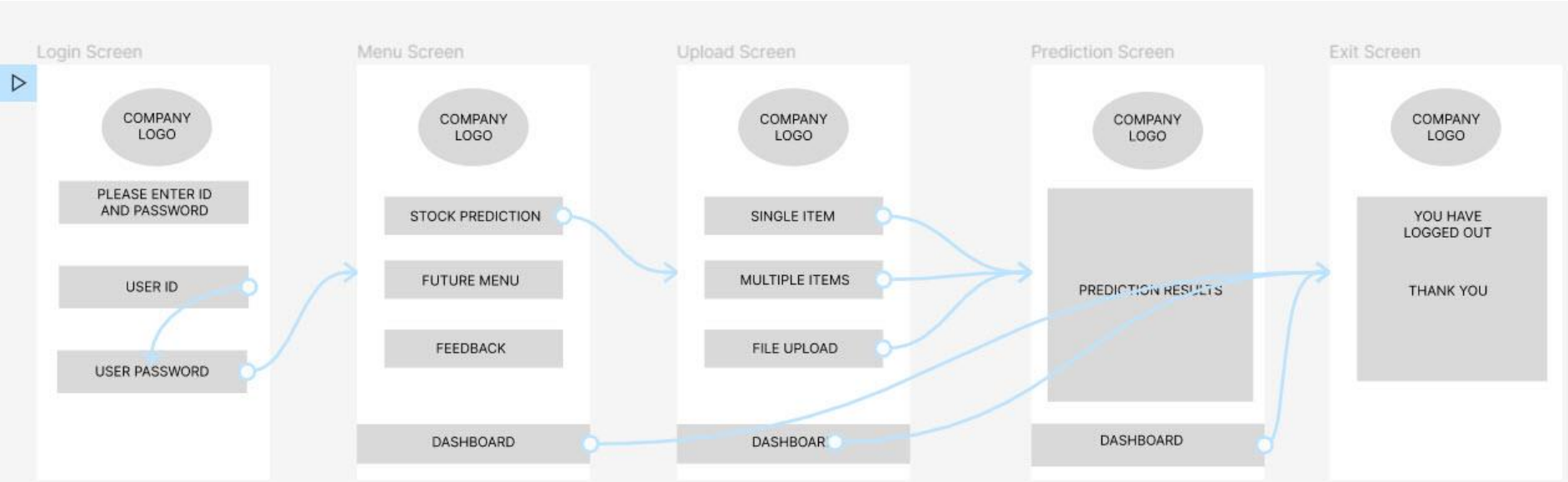
Digital wireframes

I am maintaining the same feel and look interfaces



Low-fidelity prototype

This is initial low fidelity app flow.



Usability study: findings

Write a short introduction to the usability studies you conducted and your findings.

Round 1 findings

1. Able to use the app on the go
2. Able to enter multiple stocks
3. Able to contact support

Round 2 findings

1. User confusion on using the app
2. User would like to have help menus
3. Users has difficulty reading words

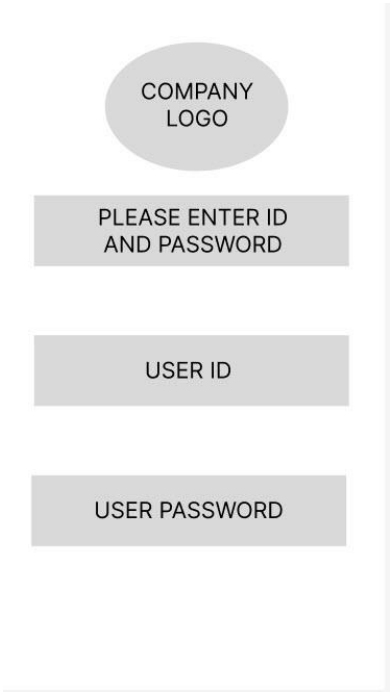
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

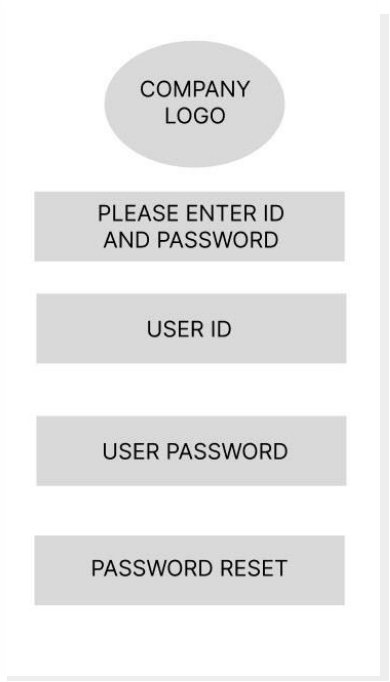
Mockups

I have added the password reset options after user requested for it.

Before usability study



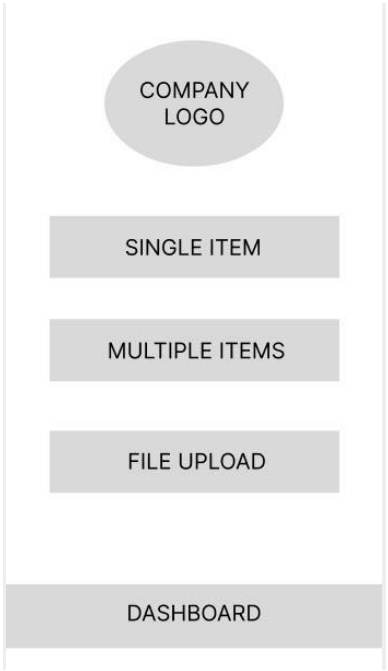
After usability study



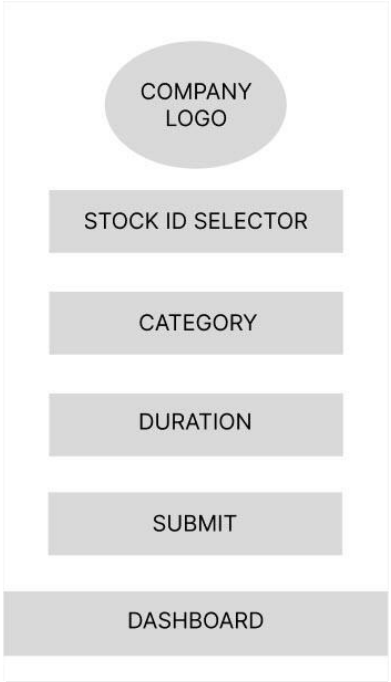
Mockups

Due to user confusion, I decided to split each tasks into separate screen for clarity.

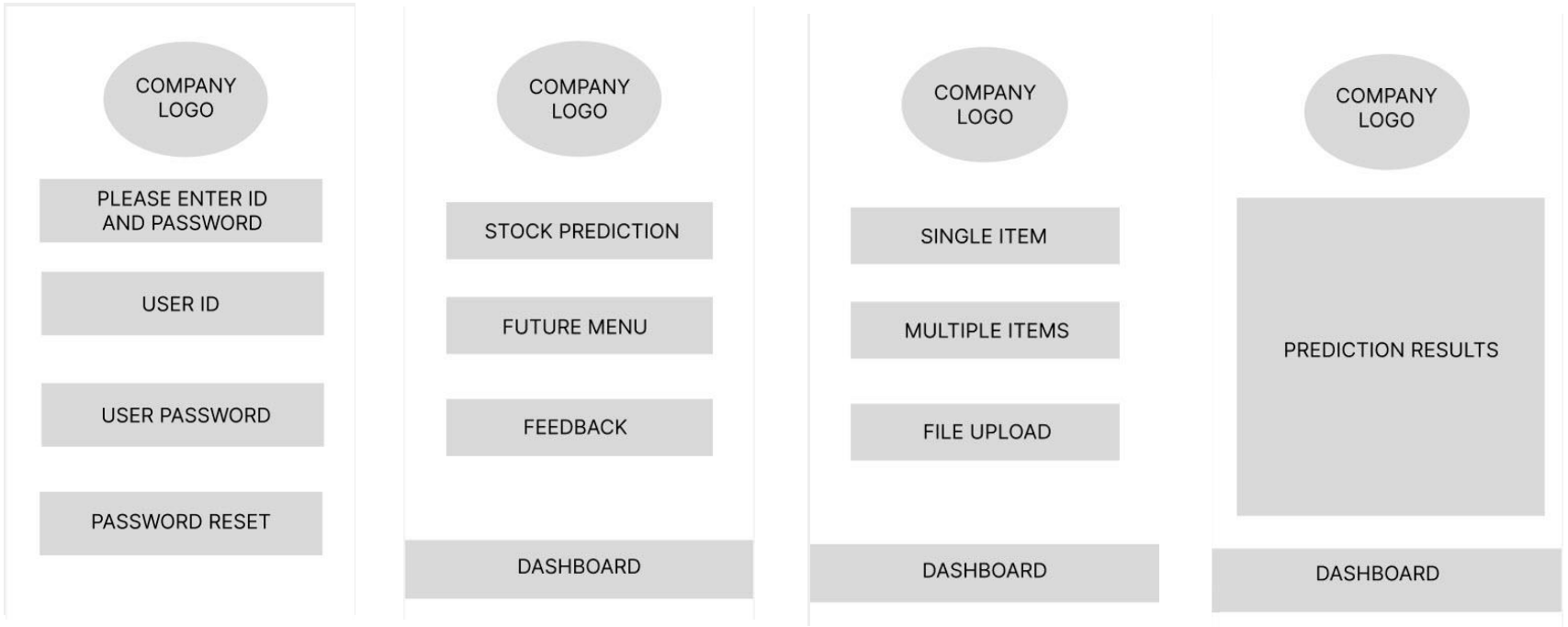
Before usability study



After usability study



Mockups in sequence



High-fidelity prototype

Accessibility considerations

1

Provide user settings for enlarging font sizes

2

Incorporate voice to text in future enhancements

3

Use proper lines, color and spacing for easy selection and color blind

Going forward

- Takeaways
- Next steps

Takeaways

Impact:

The changes and improvements made on UX designs have made the app easier to use.

What I learned:

Simple and effective changes can make a difference in user experiences.

Next steps

1

Stock Data Entry options to be expanded to allow users to quickly upload relevant data and get results in bulk

2

Accessibility and language issues to be tackled for some employees who still struggle in using the app

3

Offline prediction processing option to be introduced for those who are disconnected or on the move

Let’s connect!

Thank you very much for reviewing my work.

I am not contactable at this point. In future I will upload my work to Github as archive materials.

Thank you!