



E-Pantry

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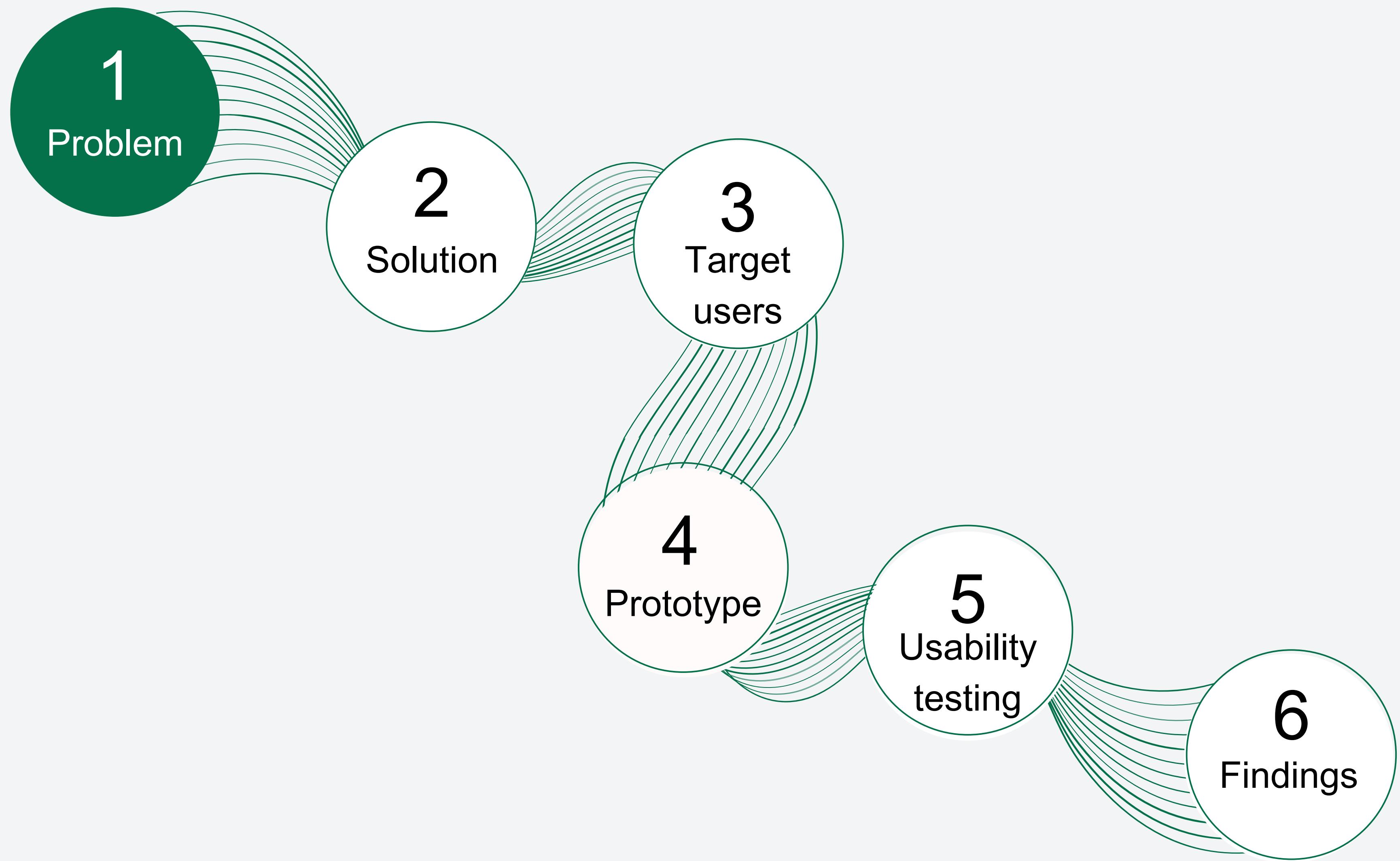
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SUMMARY OF THE USABILITY TEST RESULTS

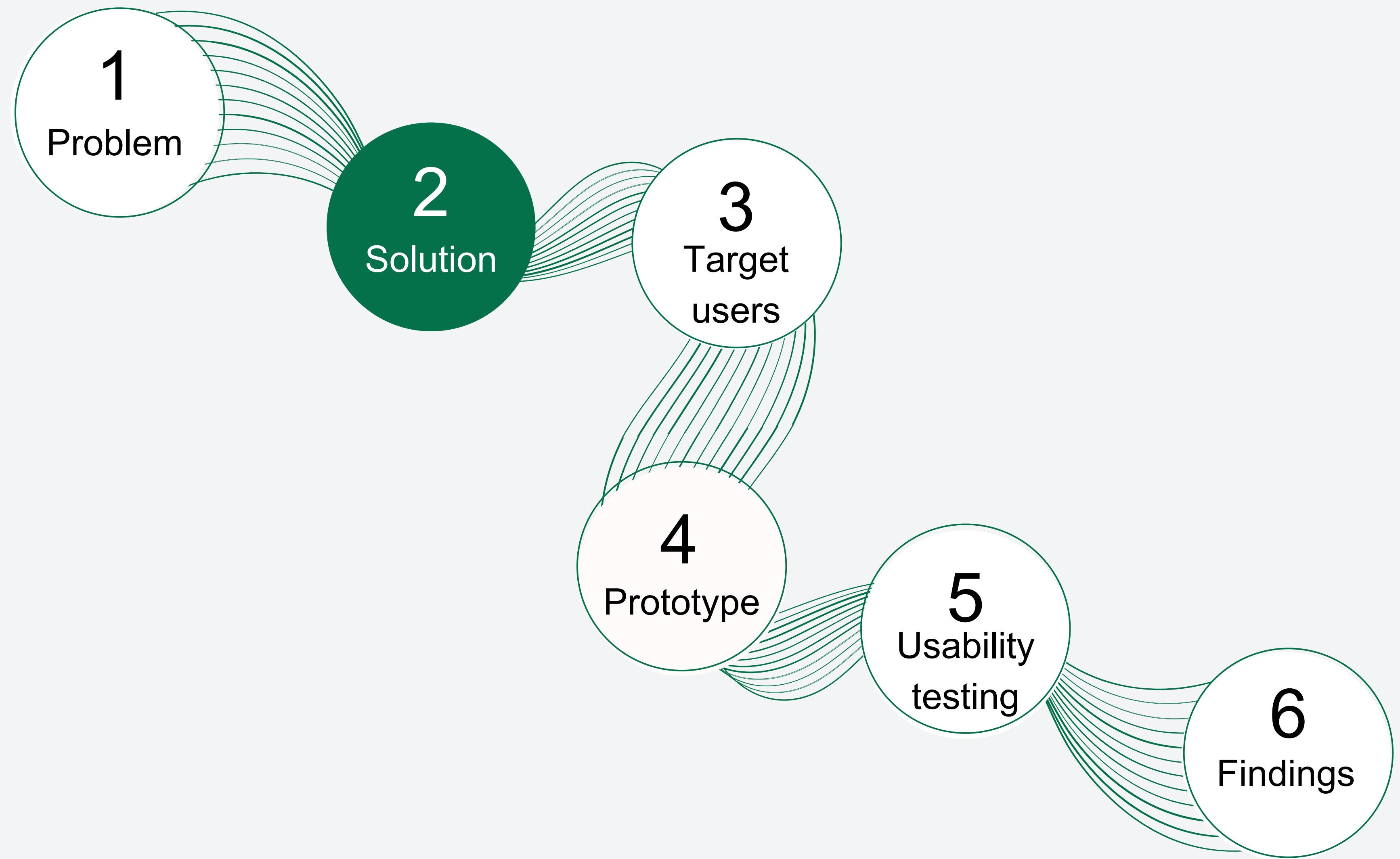
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FINDING & FUTURE RECOMMENDATIONS



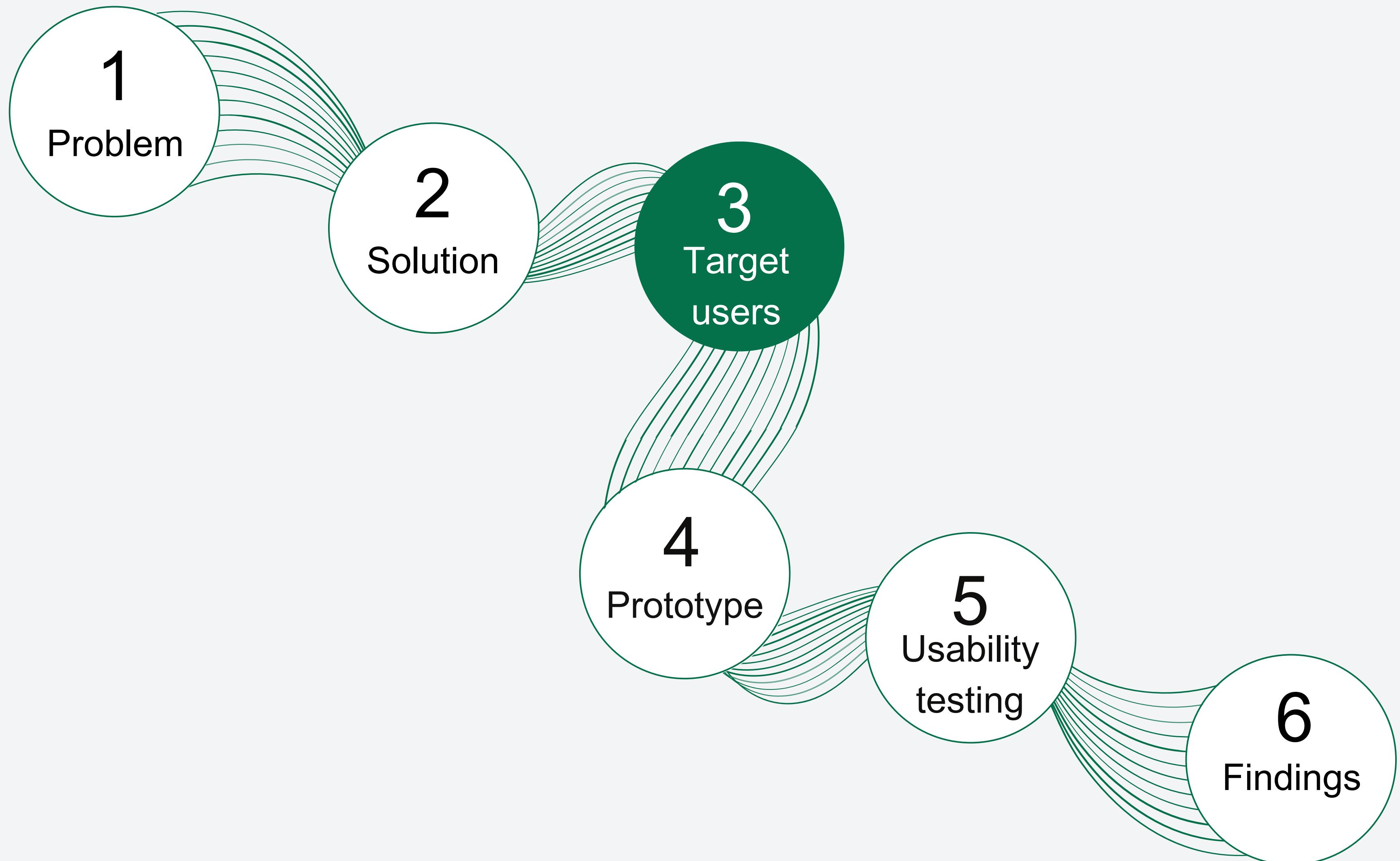
The problem

- ▶ In most houses the pantry is often neglected and disorganized.
- ▶ Writing a shopping list for the panty products requires a lot of time and effort.
- ▶ Unexpected price of the groceries'.



The sloution

- 💡 **Smart shelves that are connected to an app that allows you to track the products from your phone.**
- 💡 **Notifies you when a product is about to finish and adds it to the list.**
- 💡 **Shared list feature that allows everyone in the family to contribute to writing it.**
- 💡 **the approximate cost of your shopping list.**

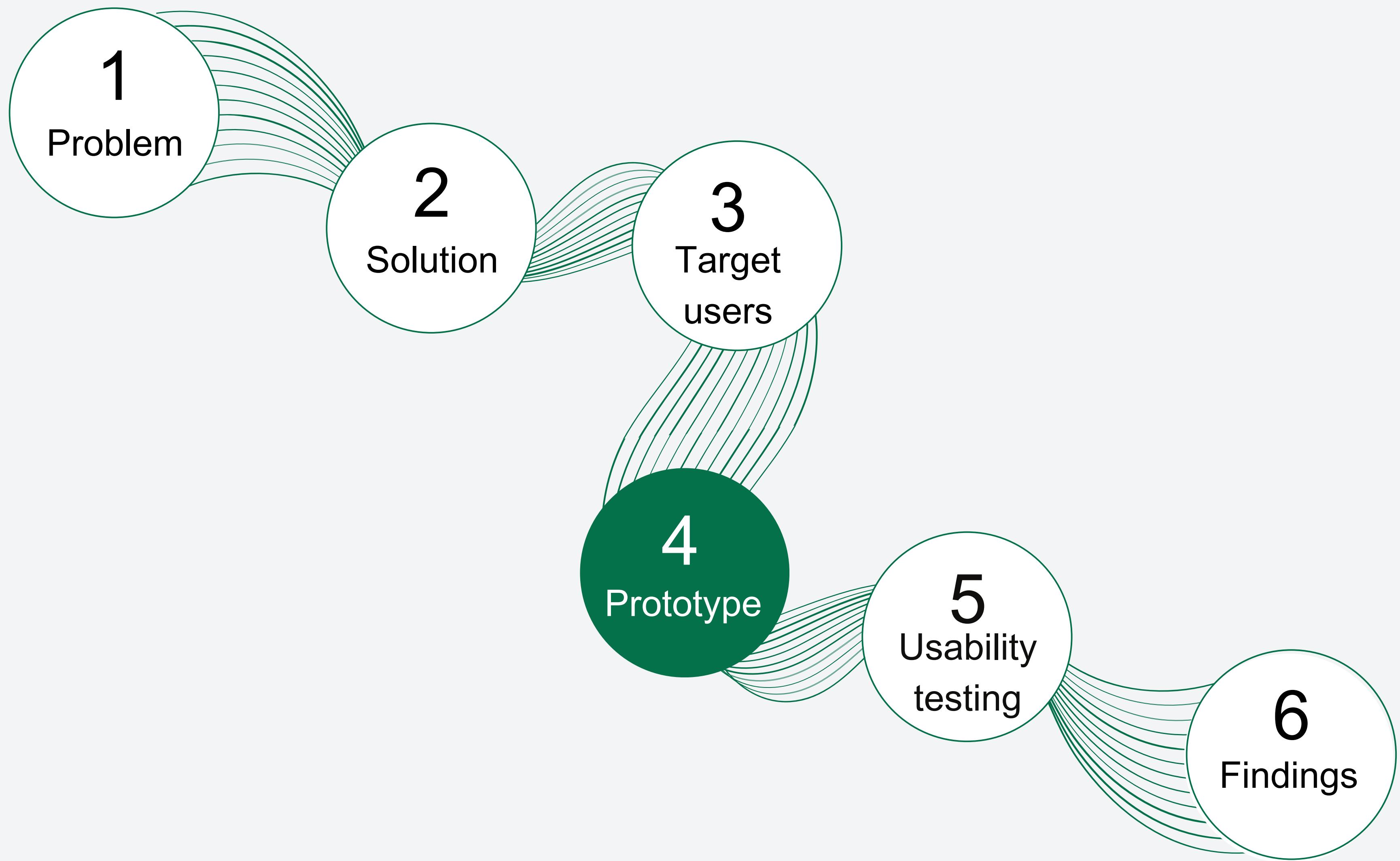


Target User



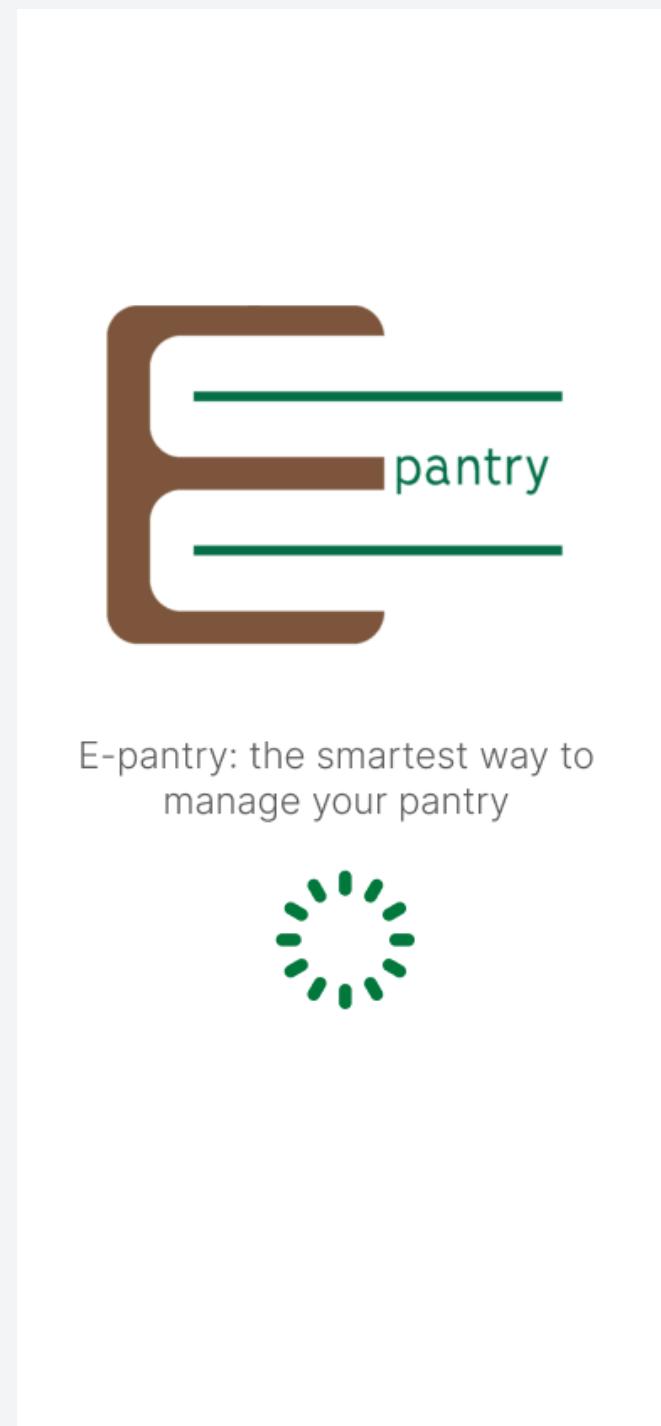
**People from age 20 and above who have pantry issues,
such as:**

- ▶ **Difficulty in maintaining the order and organization of the pantry.**
- ▶ **Forgetting to buy some products from supermarket.**
- ▶ **Not knowing the appropriate quantities for each product when buying.**
- ▶ **Lack of time and difficulty in writing a complete list.**

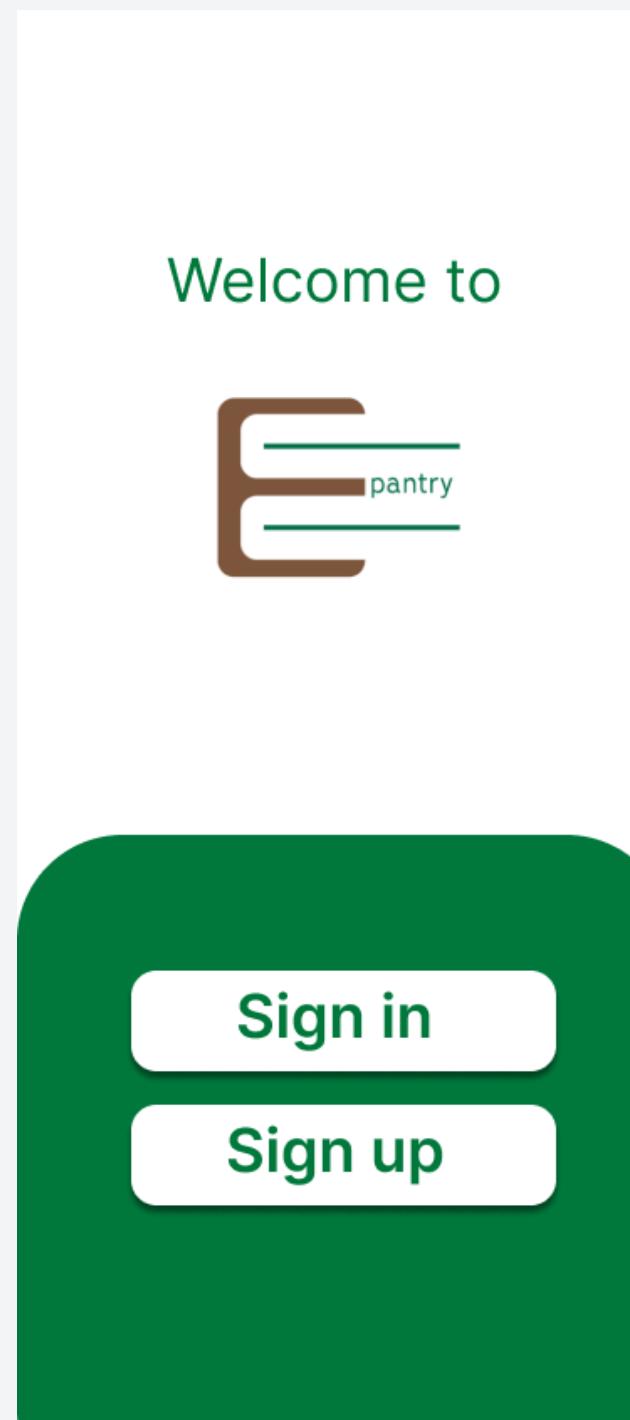


Prototype

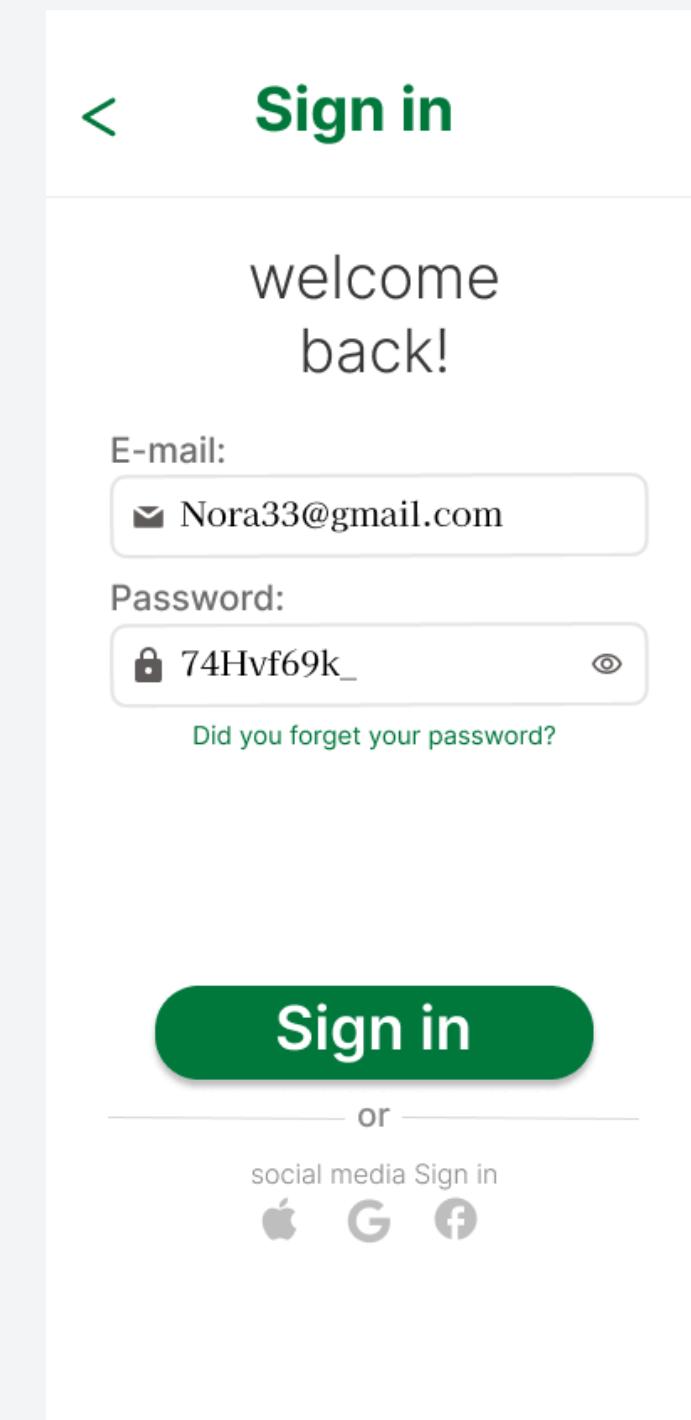
Sign in/up pages



Cover page



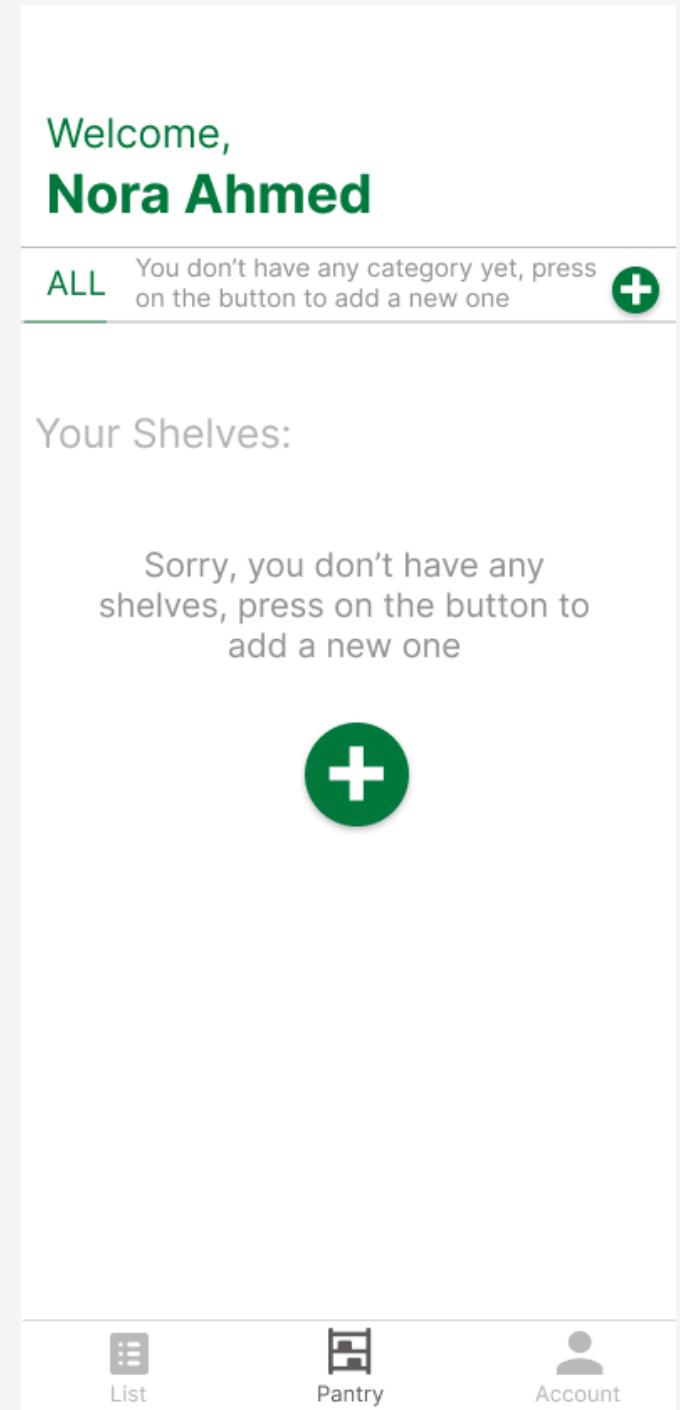
Sign in/up page



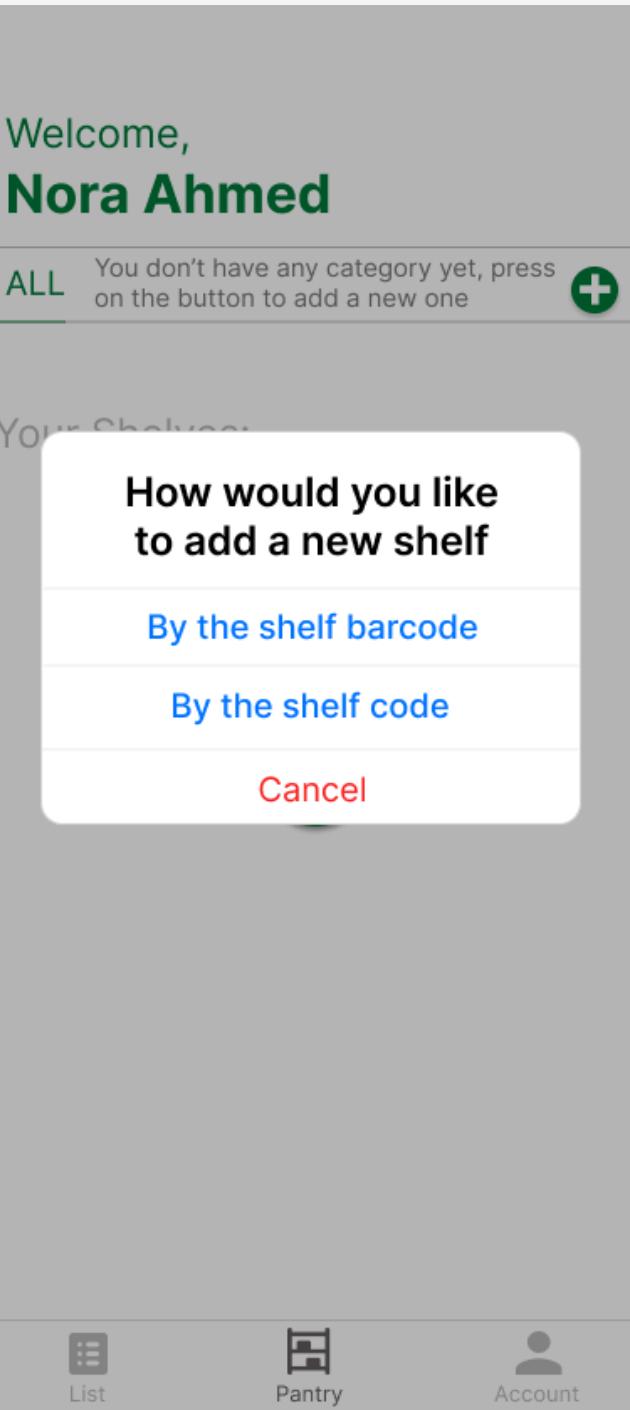
Sign in page

Prototype

Pantry pages



Empty home page



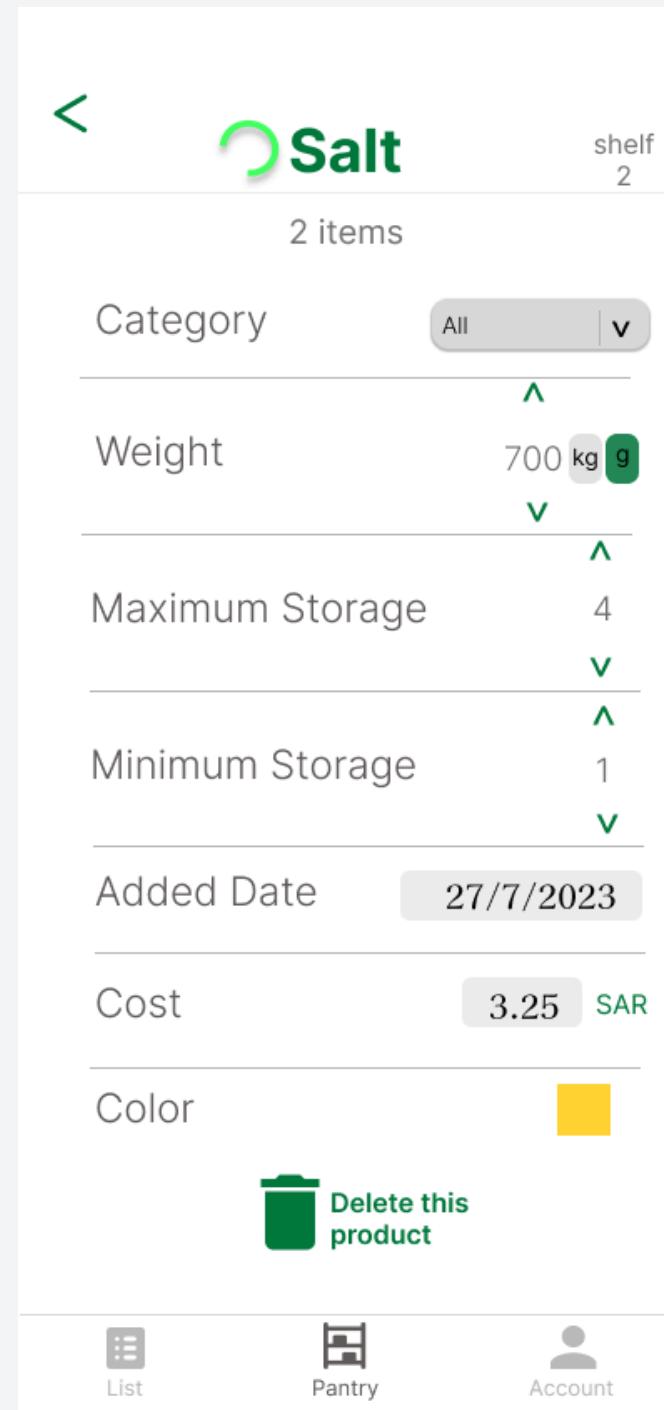
Add shelf options

A screenshot of the "Add new product" page. The title is "Add new product". It has fields for "Name" (placeholder: "Write the product's name") and "Category" (dropdown menu set to "All"). Below these are sections for "Weight" (250 kg/g), "Maximum Storage" (6), "Minimum Storage" (2), and "Cost" (SAR). There are "Skip" and "Next" buttons at the bottom. At the very bottom are the standard "List", "Pantry", and "Account" navigation icons.

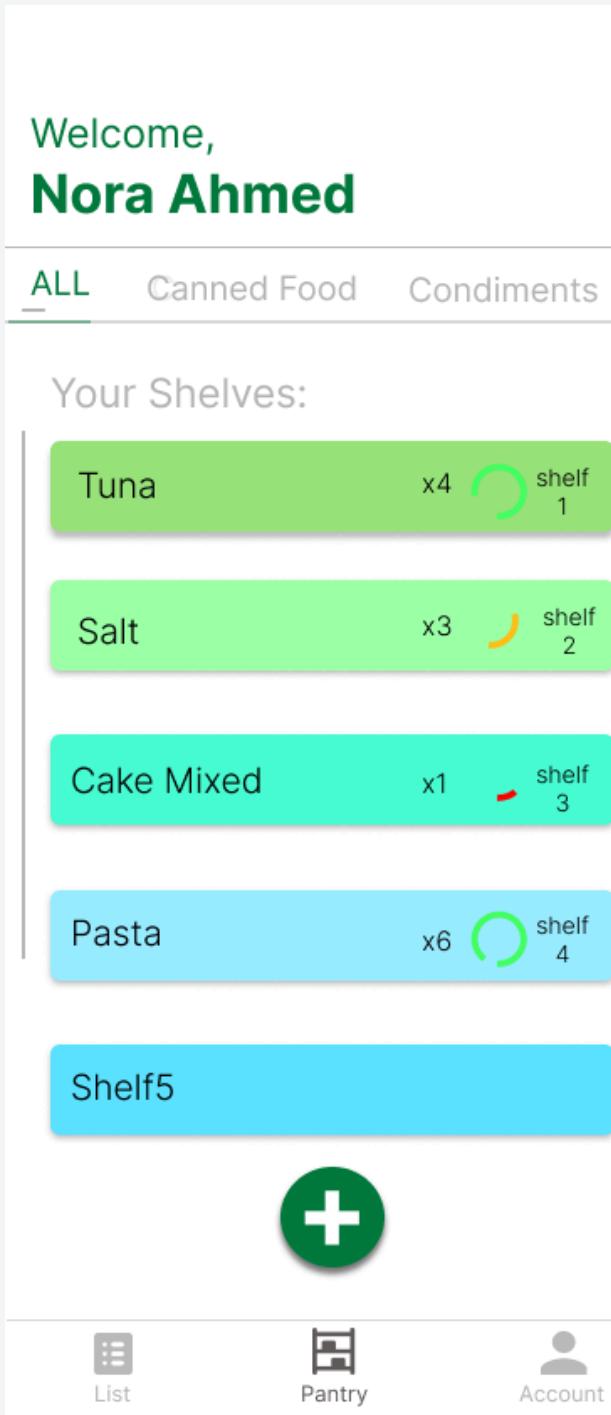
add new product page

Prototype

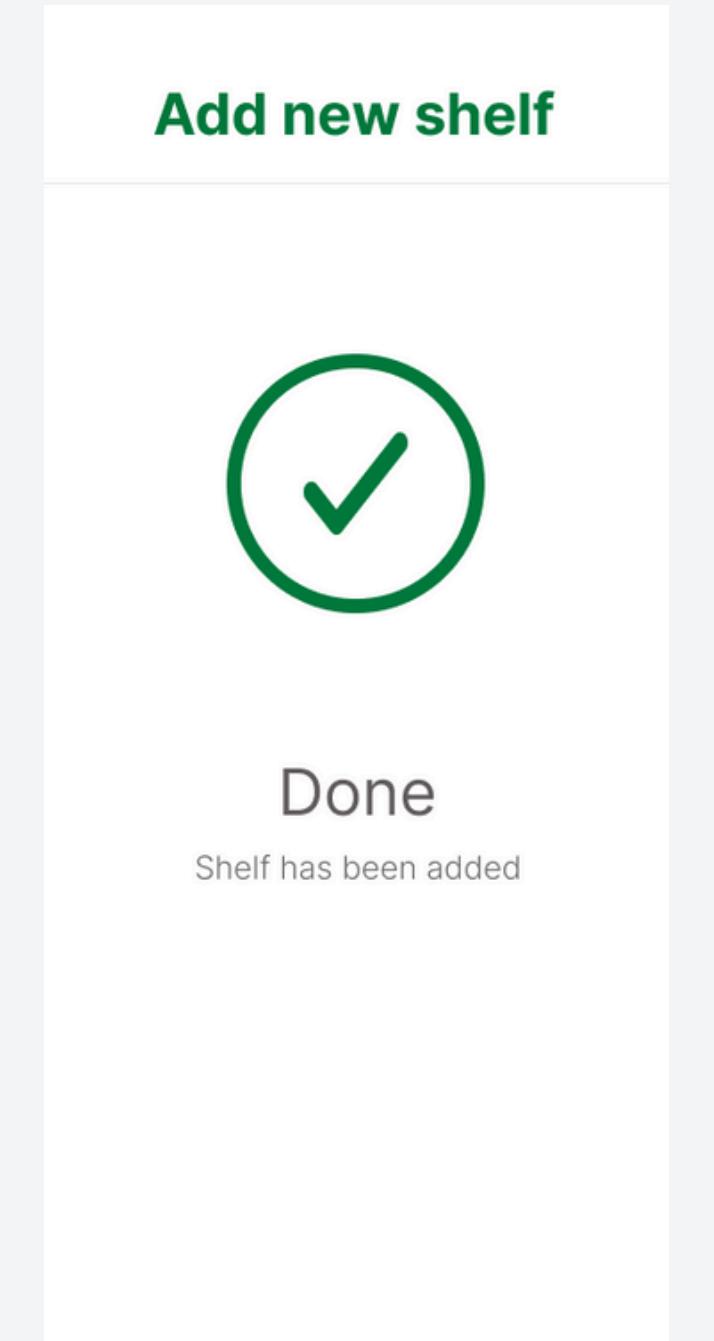
Pantry pages-2-



Product info page



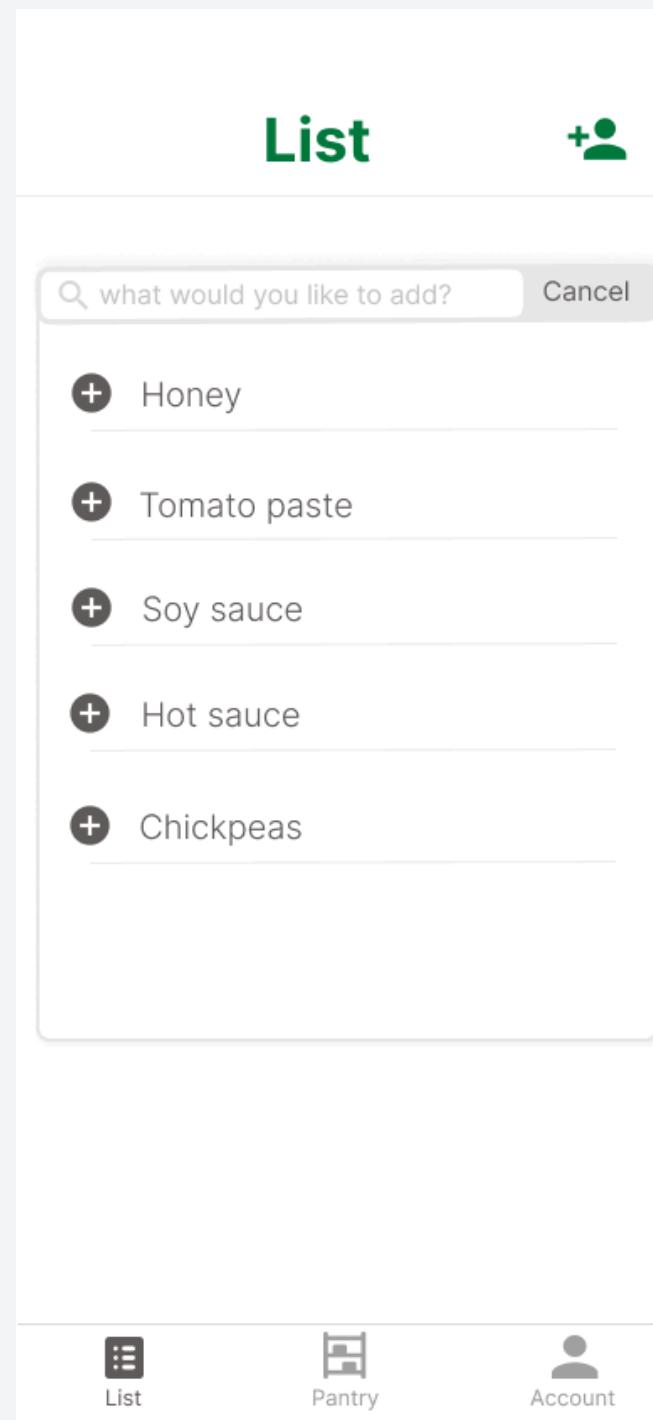
Home page



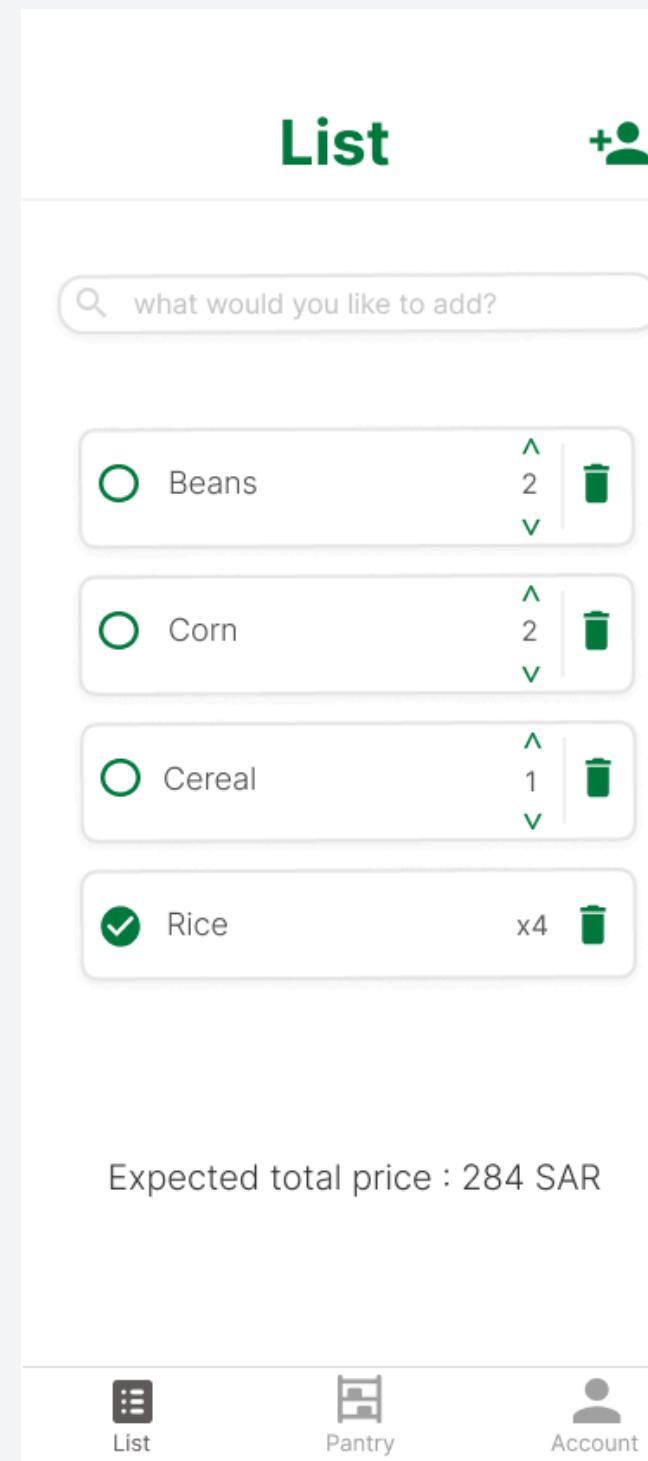
Confirmation page

Prototype

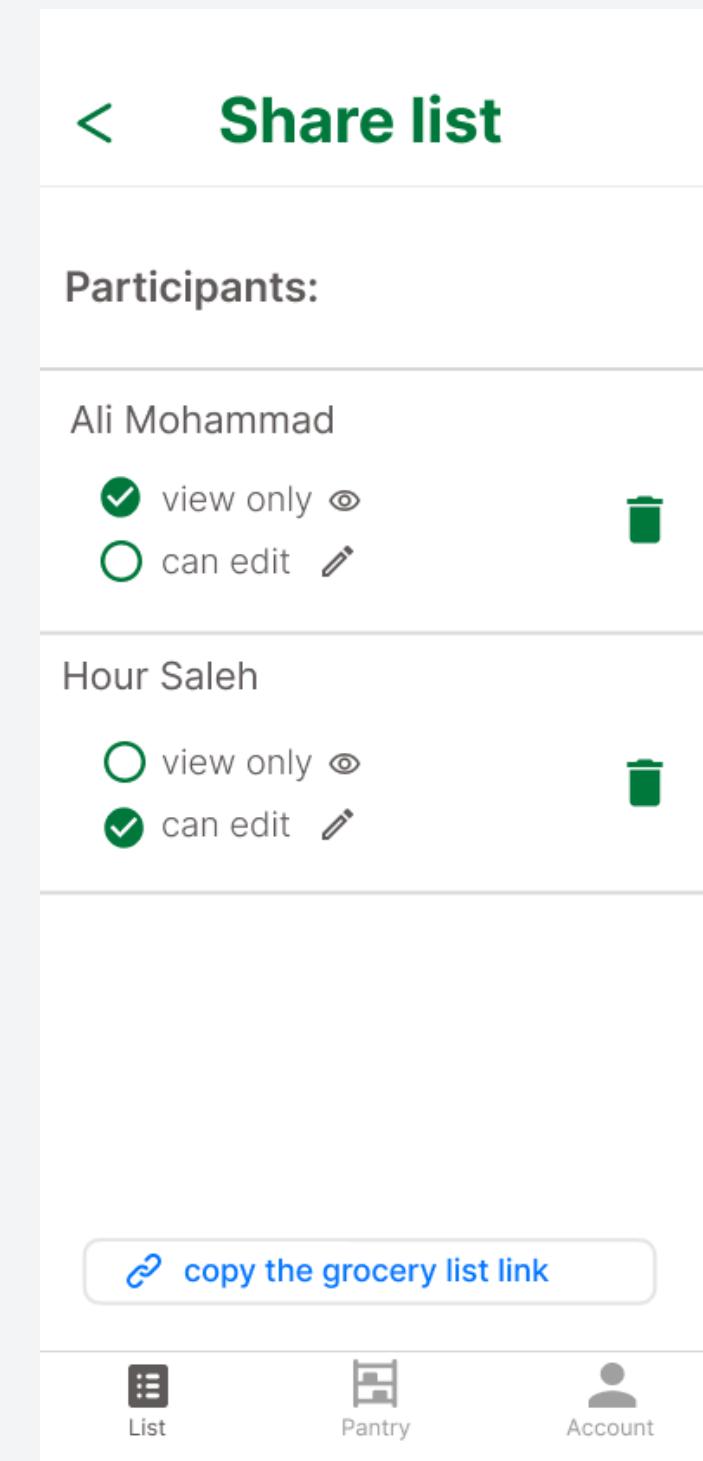
List pages



Add product page



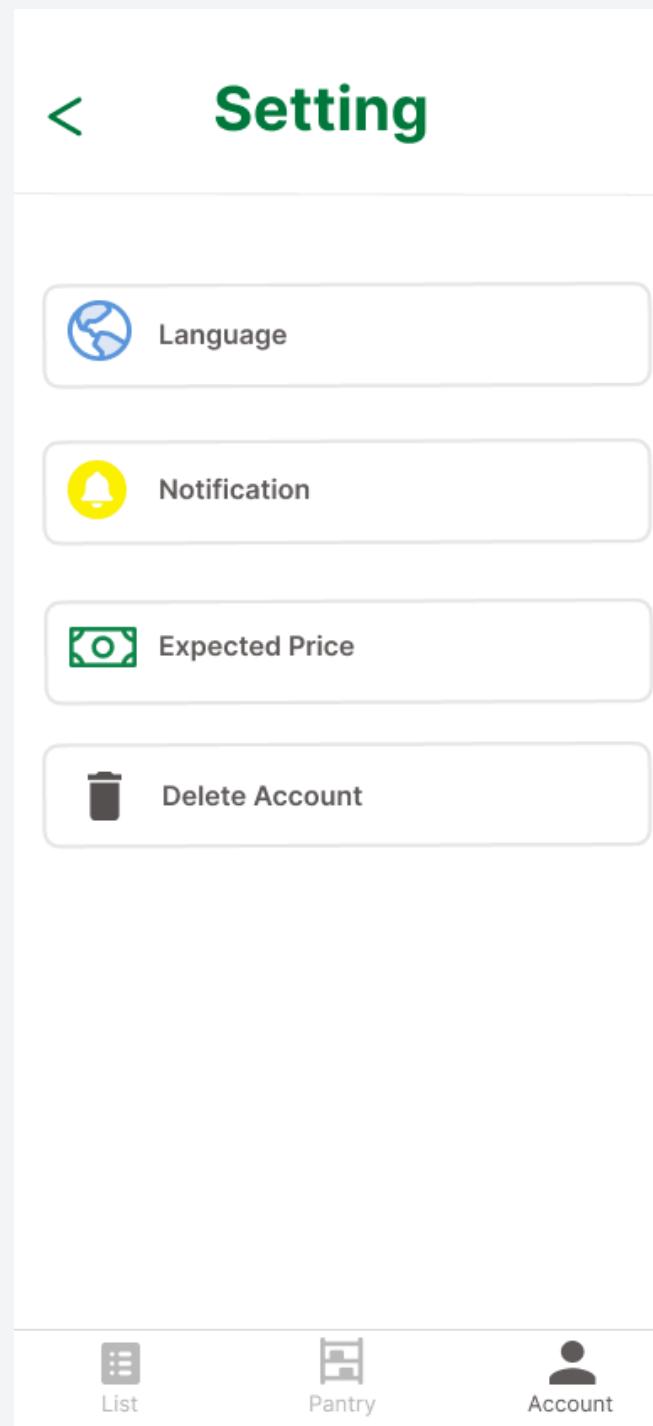
Grocery list page



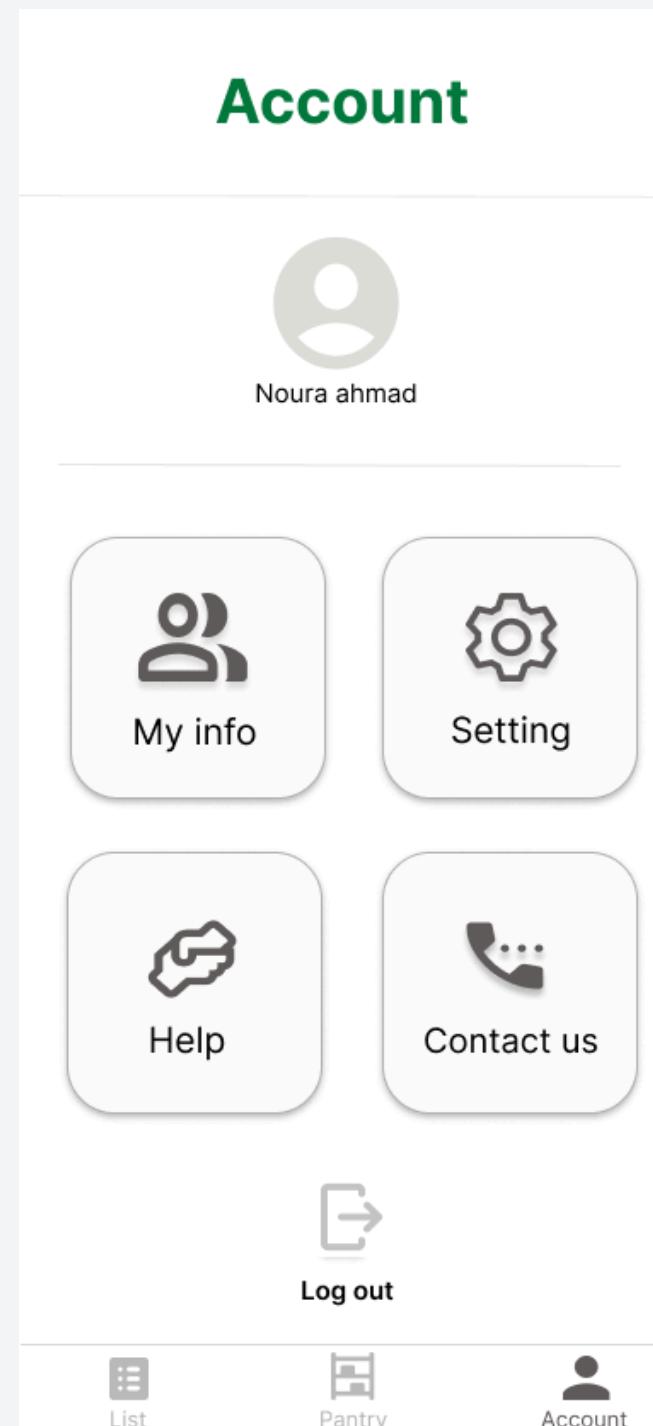
share list page

Prototype

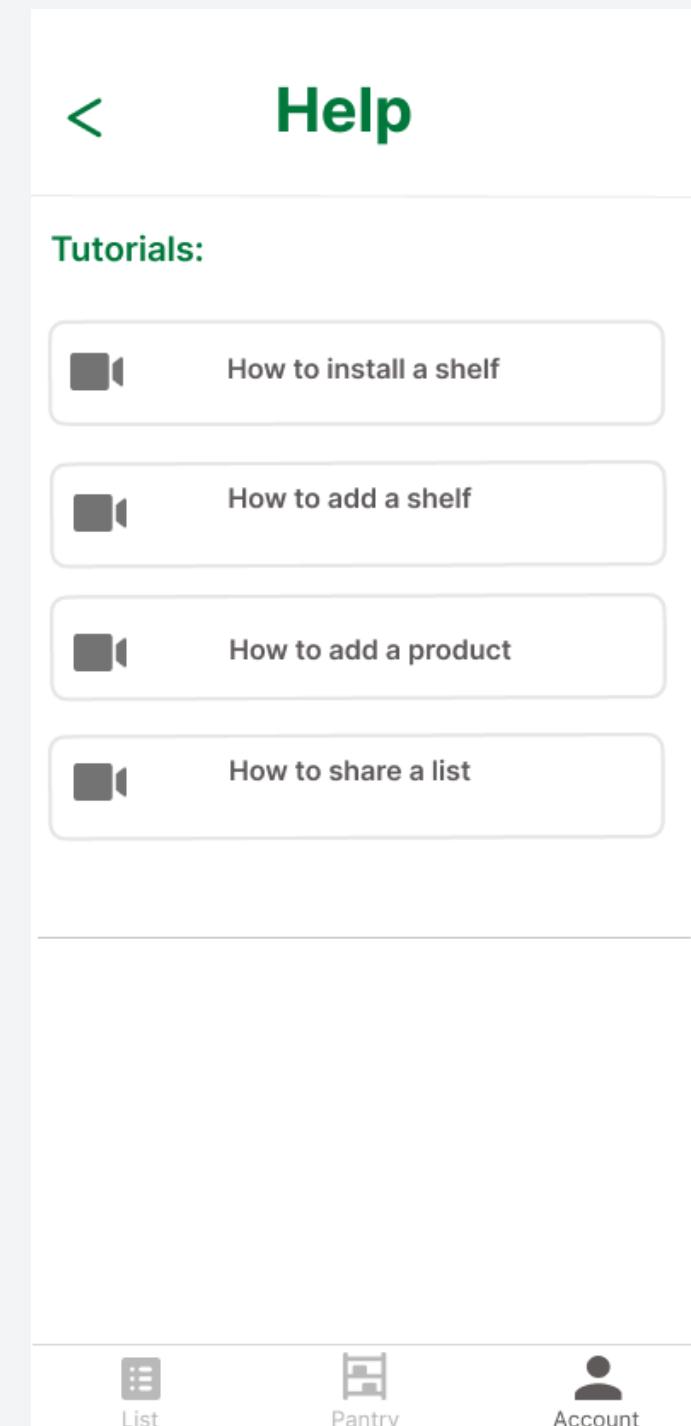
Account pages



Setting page



Account page



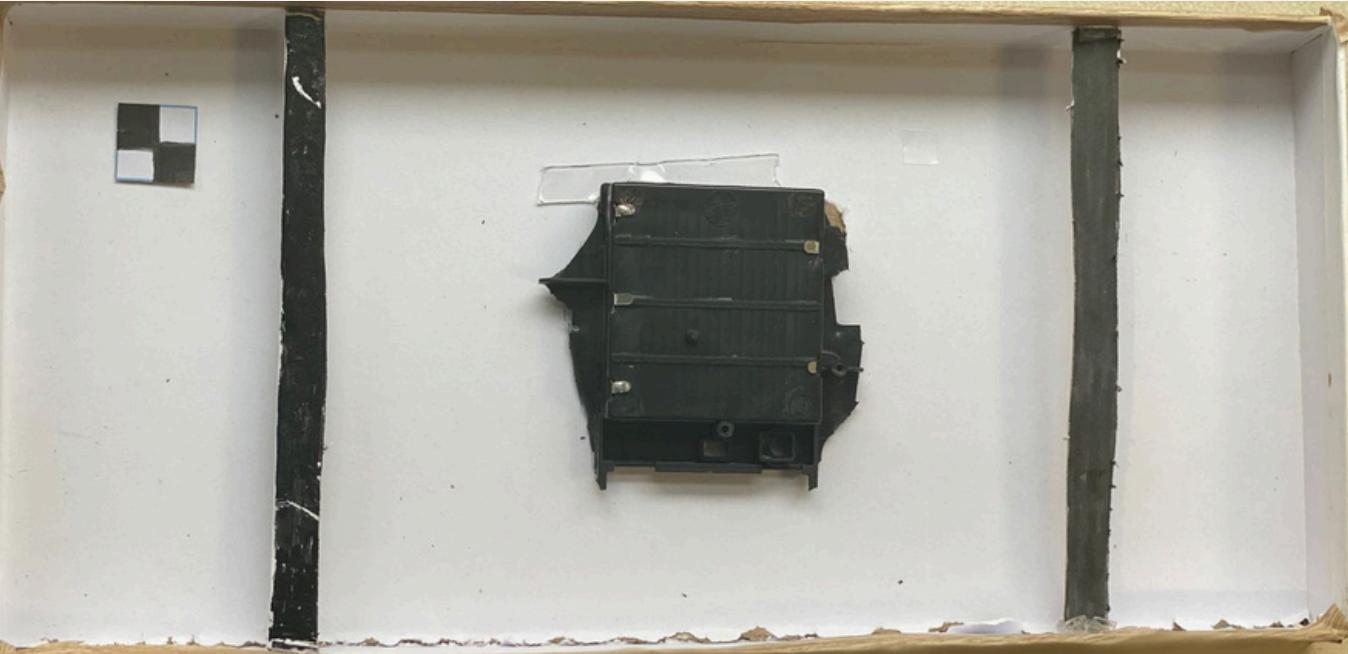
Tutorial page

Mock-up Hardware

Smart shelf



Outside of the shelf

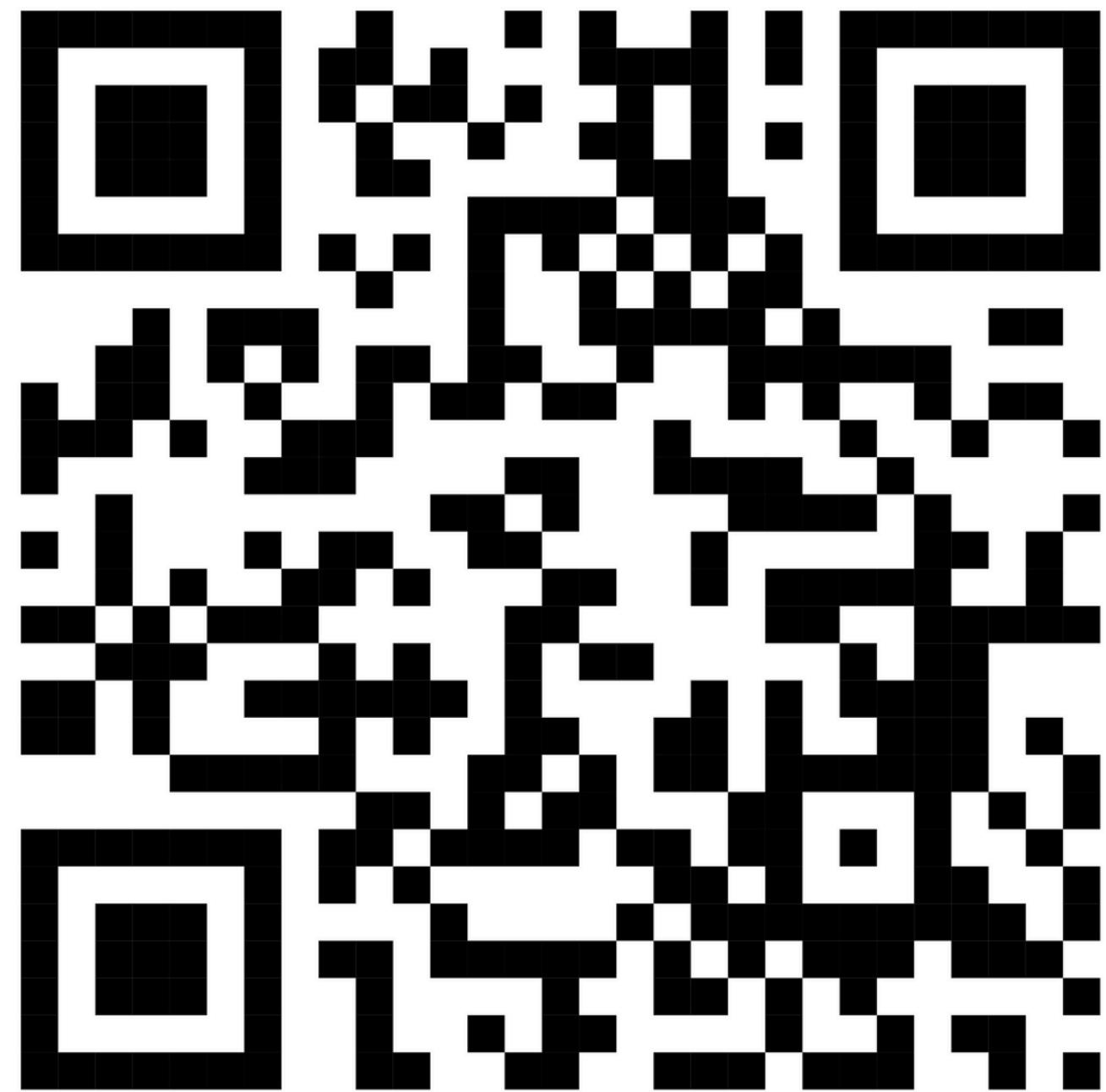


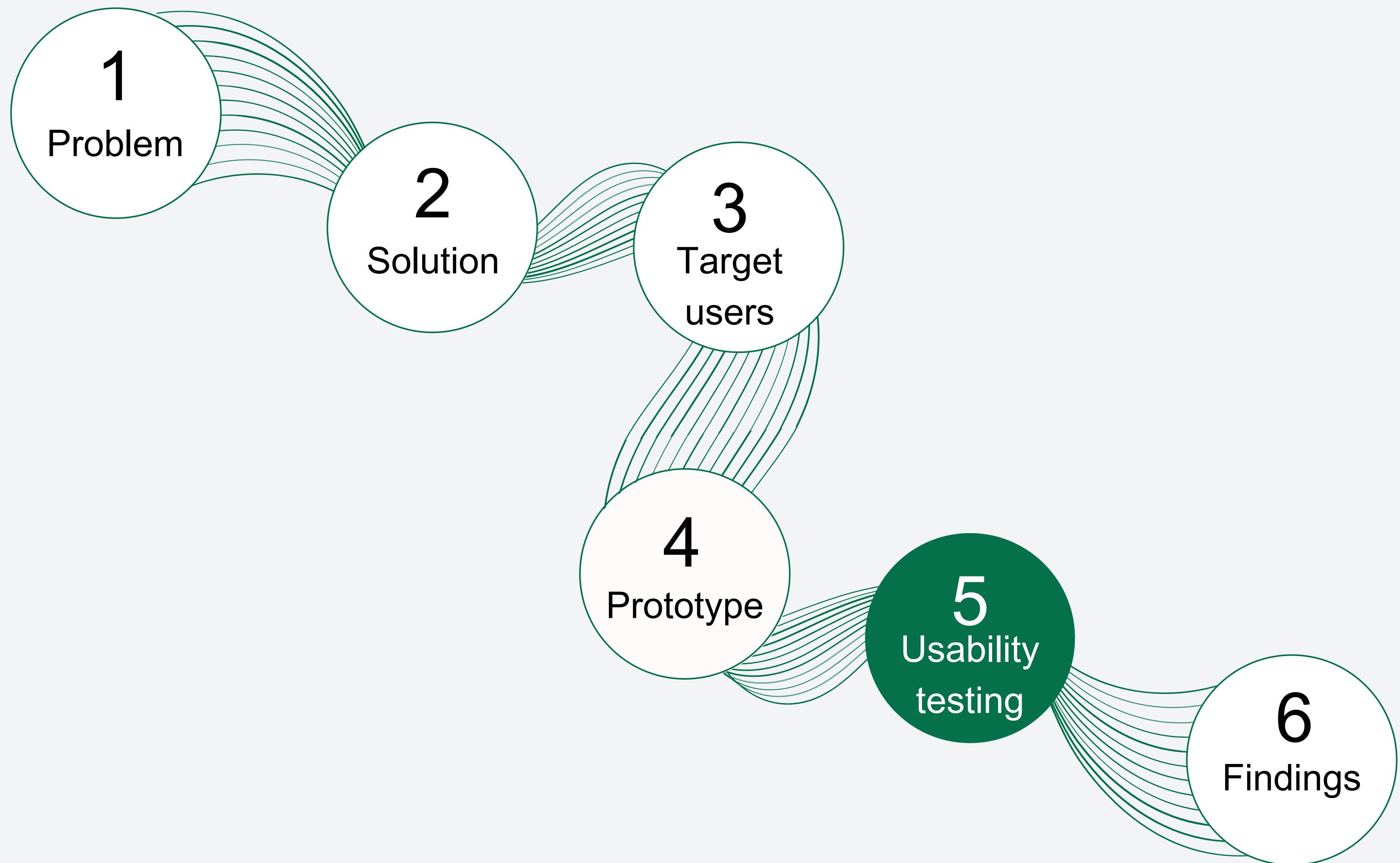
Inside of the shelf



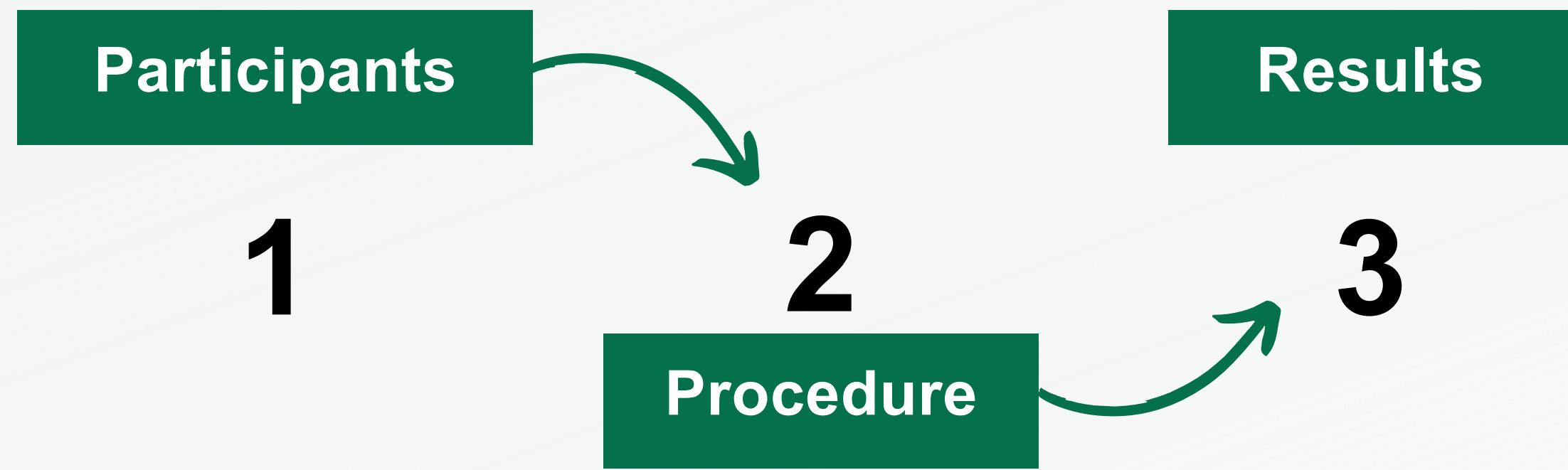
Outside of the shelf-2-

QR Code





Summary Of The Usability Test Results



Summary Of The Usability Test Results

Participants

Age

Between
(20-60)
Mean: 32

Gender

6 Female
2 Male

Experience with
similar products

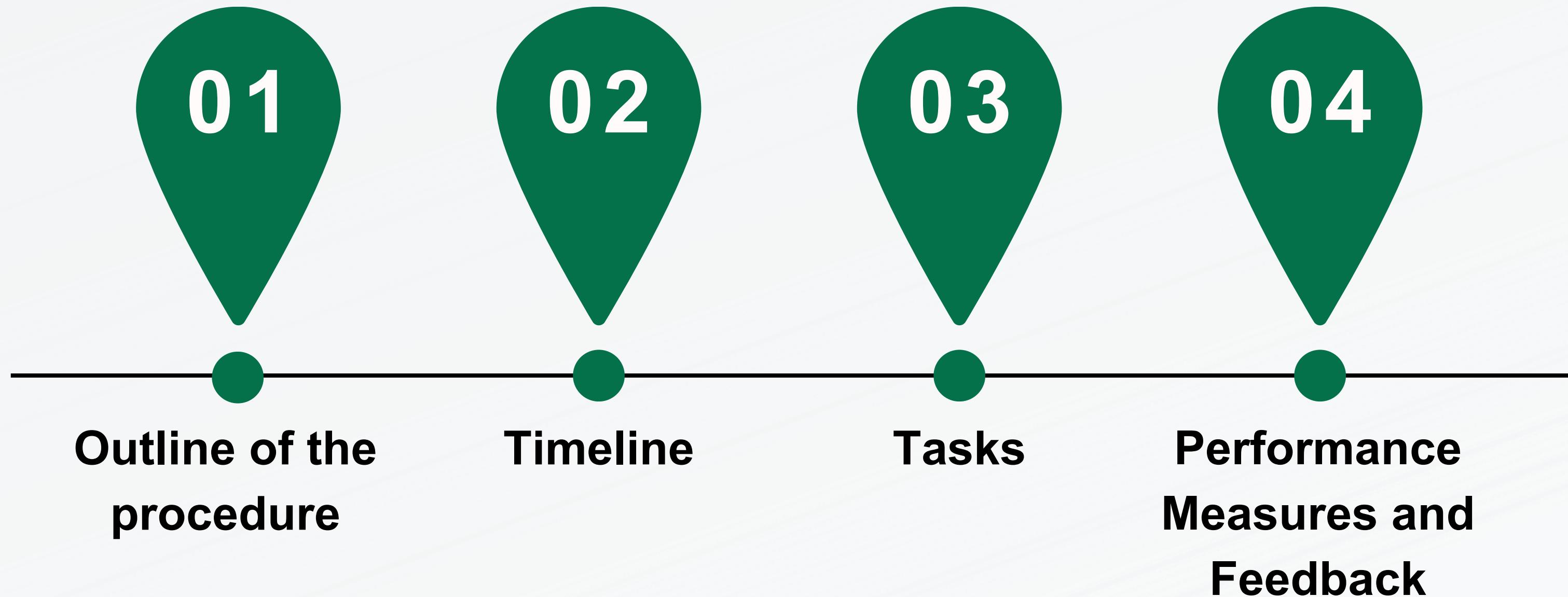
Mean: 1.25

Use of mobile
interface

Mean: 4.63

Summary Of The Usability Test Results

Procedure



Summary Of The Usability Test Results

Procedure

Outline of the procedure:

Cooperative evaluation

Query technique

Protocol analysis technique

Post-task walkthrough



Summary Of The Usability Test Results

Procedure

Timeline:

User testing took place from Friday, May 26th to Sunday, May 28th.



Summary Of The Usability Test Results

Procedure

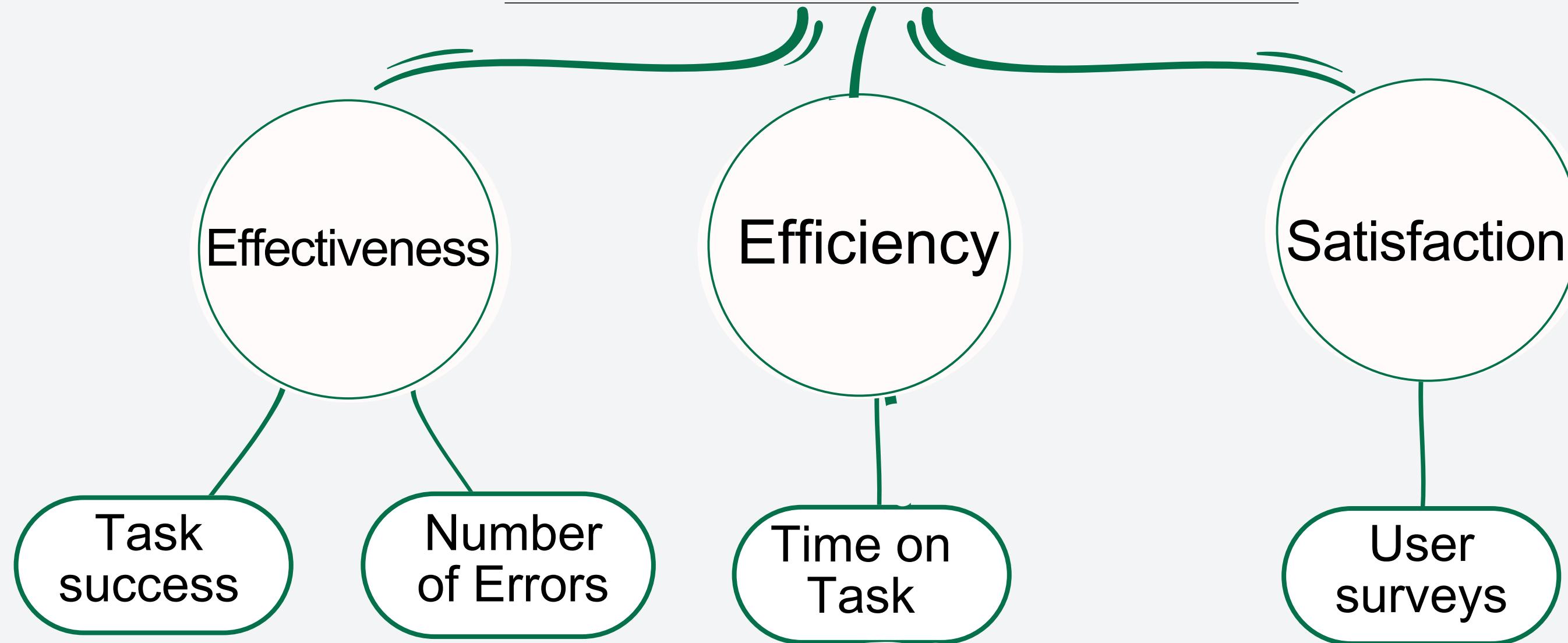
Tasks:

- 01 Add a new shelf, then add a new product.**
- 02 Add a product to the list.**
- 03 Control the accessibility of the participants in the share list.**
- 04 Change the status of the notification.**

Summary Of The Usability Test Results

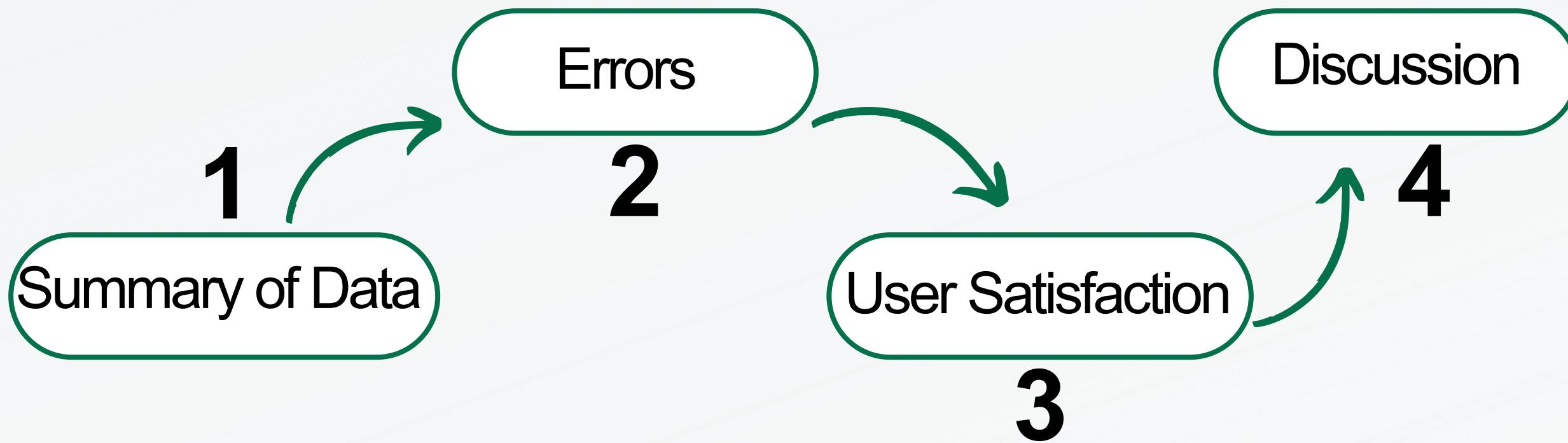
Procedure

Performance Measures and Feedback



Summary Of The Usability Test Results

Results



Summary Of The Usability Test Results

Results

Summary of Data

Task	Task Completion	Error	Average Time on Task
1- Add a new shelf, then add a new product	8	2	57.375s
2- Add a product to the list.	8	4	15.75s
3- Control the accessibility of the participants in the share list.	8	0	18.375s
4- Change the status of the notification.	8	0	13.875s

Summary of the Usability Test Results

Procedure

Errors:

- ▶ They don't understand how to add categories and take long time to figure it out.
- ▶ They think they must add a category before adding the first shelf.
- ▶ They took a long time to know where the list at.
- ▶ Didn't know how to add a product to the list, or it took too long to figure it out.

Summary Of The Usability Test Results

Results

User Satisfaction

Questions

1. I think that I would like to use this app frequently.

2. I don't find this app unnecessarily complex.

3. I thought this app was easy to use.

Mean Rating

4

3.875

4.125

Percent Agree

87.5%

62.5%

75%

Summary Of The Usability Test Results

Results

User Satisfaction Questions:

4. I don't think I need assistance to use this app.

5. I found the functions in this app well integrated.

6. I didn't think there was inconsistency in this app.

Mean Rating

3.75

3.75

4.5

Percent Agree

62.5%

87.5%

87.5%

Summary Of The Usability Test Results

Results

7. I think most people will learn using this app quickly.

8. I don't find this app cumbersome to use.

9. I felt confident using this app.

10. I didn't learn lots of things before using this app.

Mean Rating

4.25

4.25

4

3.5

Percent Agree

75%

75%

75%

50%

Summary Of The Usability Test Results

Discussion:

- **Critical problem**
- **Major problem**
- **Minor problem**

Summary Of The Usability Test Results

Discussion

Critical problem:

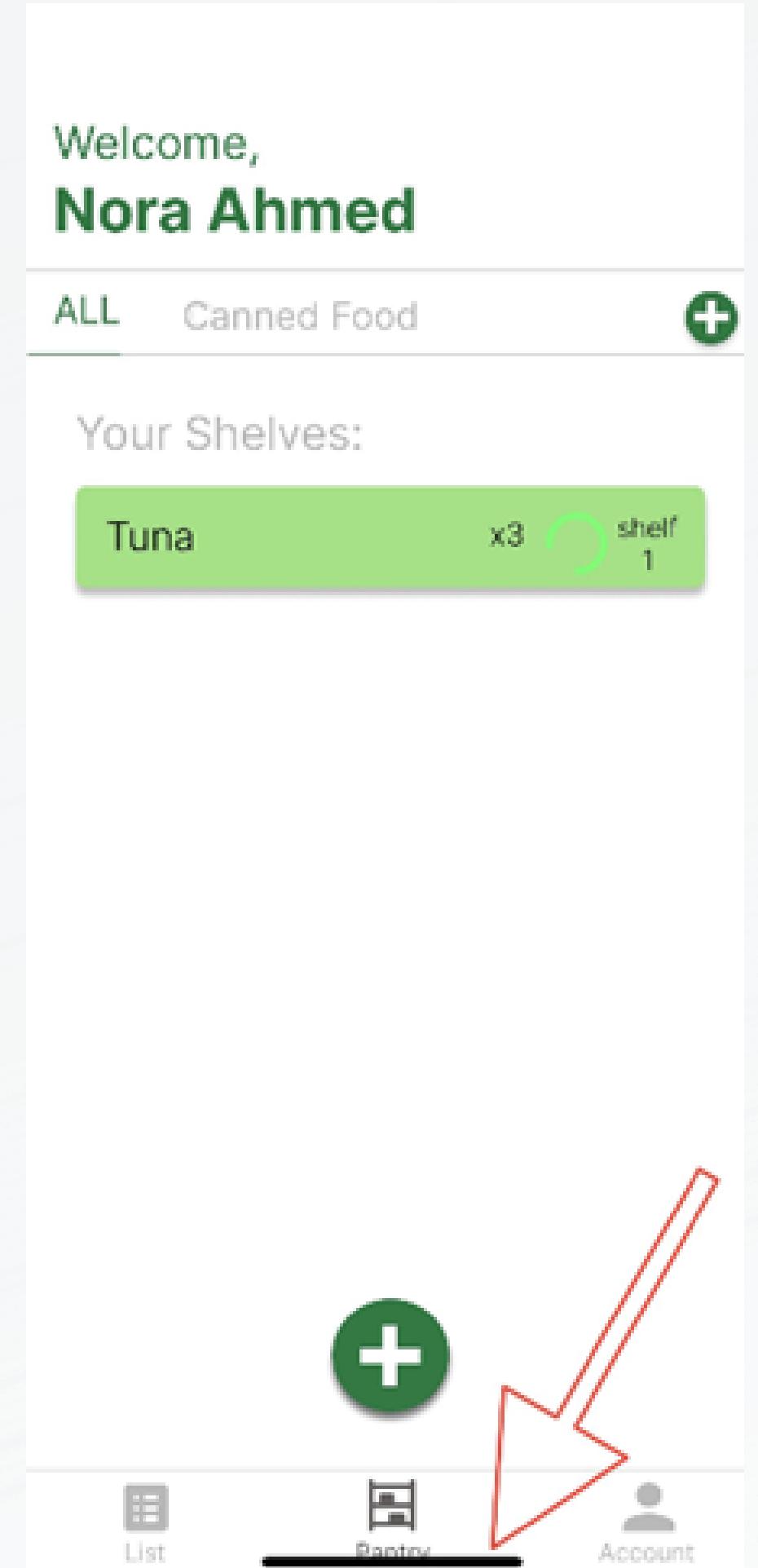
There is no critical problems since all the participants completed the test.

Summary Of The Usability Test Results

Discussion

Major problem:

The participants didn't know where the list page is.



Summary Of The Usability Test Results

Discussion

Minor problem :

they thought they must first add a category before adding the shelves.

Welcome,
Nora Ahmed

ALL You don't have any category yet, press on the button to add a new one

Your Shelves:

Sorry, you don't have any shelves, press on the button to add a new one

List Pantry Account

A screenshot of a mobile application interface. At the top, it says "Welcome, Nora Ahmed". Below that, under the heading "ALL", it says "You don't have any category yet, press on the button to add a new one" next to a green circular "plus" button. Under the heading "Your Shelves:", it says "Sorry, you don't have any shelves, press on the button to add a new one" next to another green circular "plus" button. At the bottom, there are three navigation icons: a list icon labeled "List", a pantry icon labeled "Pantry", and an account icon labeled "Account". A red arrow points upwards from the text "they thought they must first add a category before adding the shelves." towards the "plus" button in the screenshot.

Summary Of The Usability Test Results

Discussion

Minor problem :

Don't know how to add a new item to the list

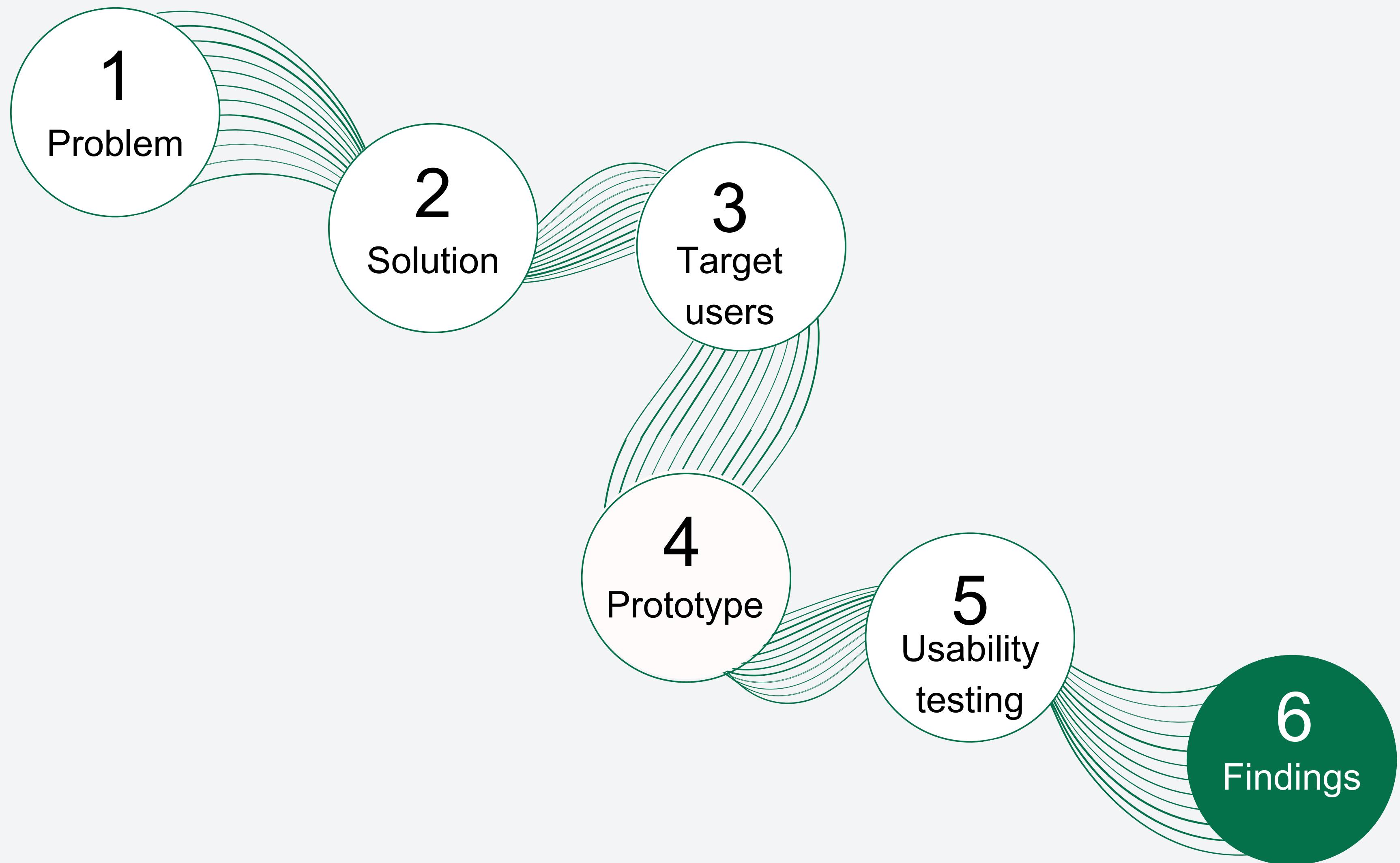
List

what would you like to add?

Beans	2	▲ ▼
Corn	2	▲ ▼
Cereal	1	▲ ▼
Rice	x4	trash

Expected total price : 284 SAR

List Pantry Account



Finding & Future Recommendations

After finishing testing steps we concluded:

- ▶ **Some participants didn't understand the “All” and “plus” icons when they want to choose a category when adding a product to the shelf.**

- 💡 **should be add a comment to make this function clearer to users.**

Finding & Future Recommendations



After finishing testing steps we concluded:

- ▶ **Some participants didn't find the list page easily.**
 - 💡 change the size of the tab bar so the icon "list" and "list" word appears and can be read.
- ▶ **The users couldn't figure out how to add a product to the list.**
 - 💡 swap out the search bar for a plus icon that will open a new page with a search box.

Finding & Future Recommendations

In the future we hope to make many improvements to E-pantry such as:

- ▶ Add a feature that can know the expiration date and inform the user when the date gets closer.
- ▶ Shelves with AI technology cameras that can recognize and read product information.
- ▶ Create a website to sell the shelves and deliver them to the user.



THANKS FOR LISTENING!

Any Questions?