



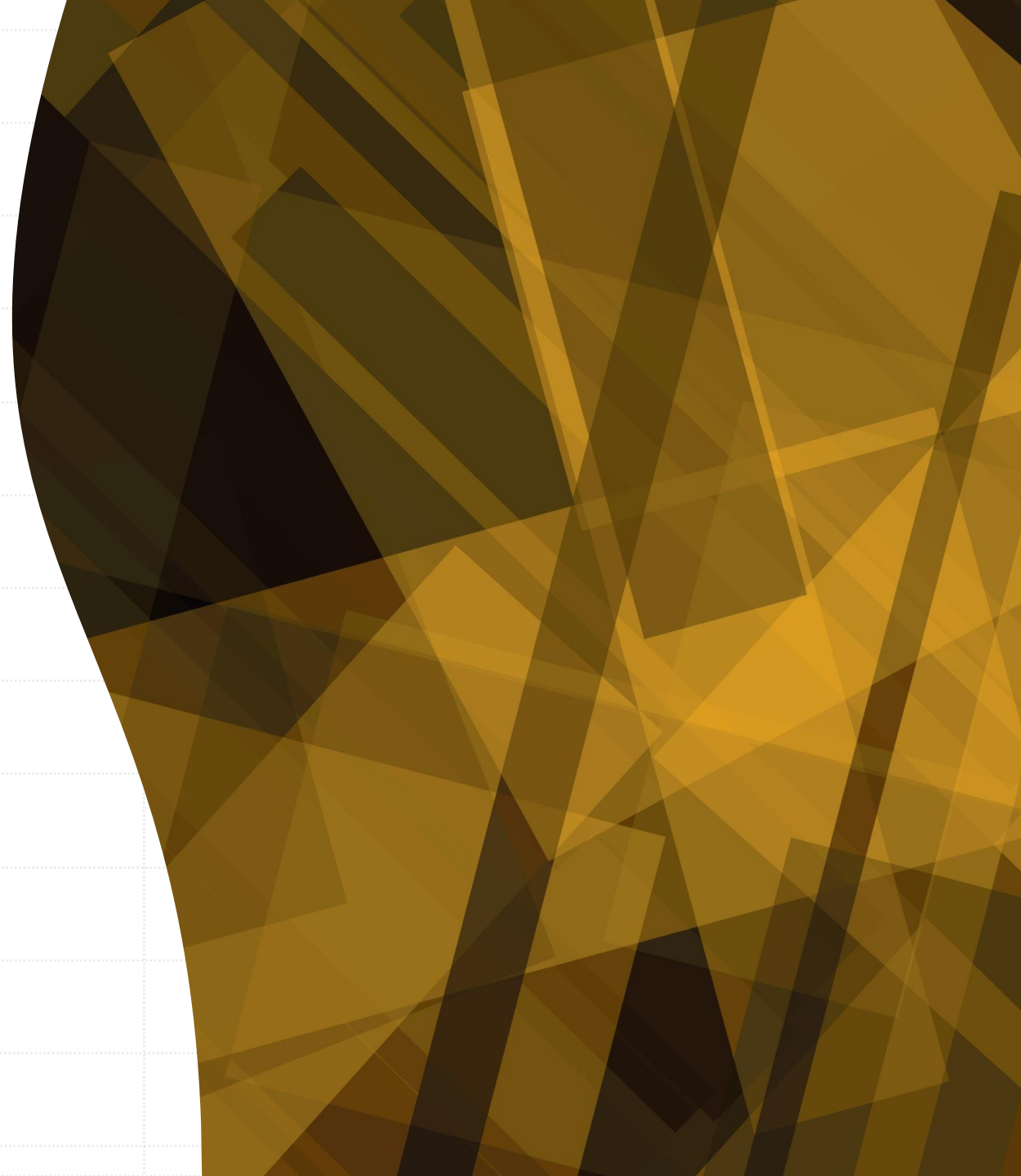
Amazon Redesign

EN.601.490 Introduction to
Human-Computer Interaction

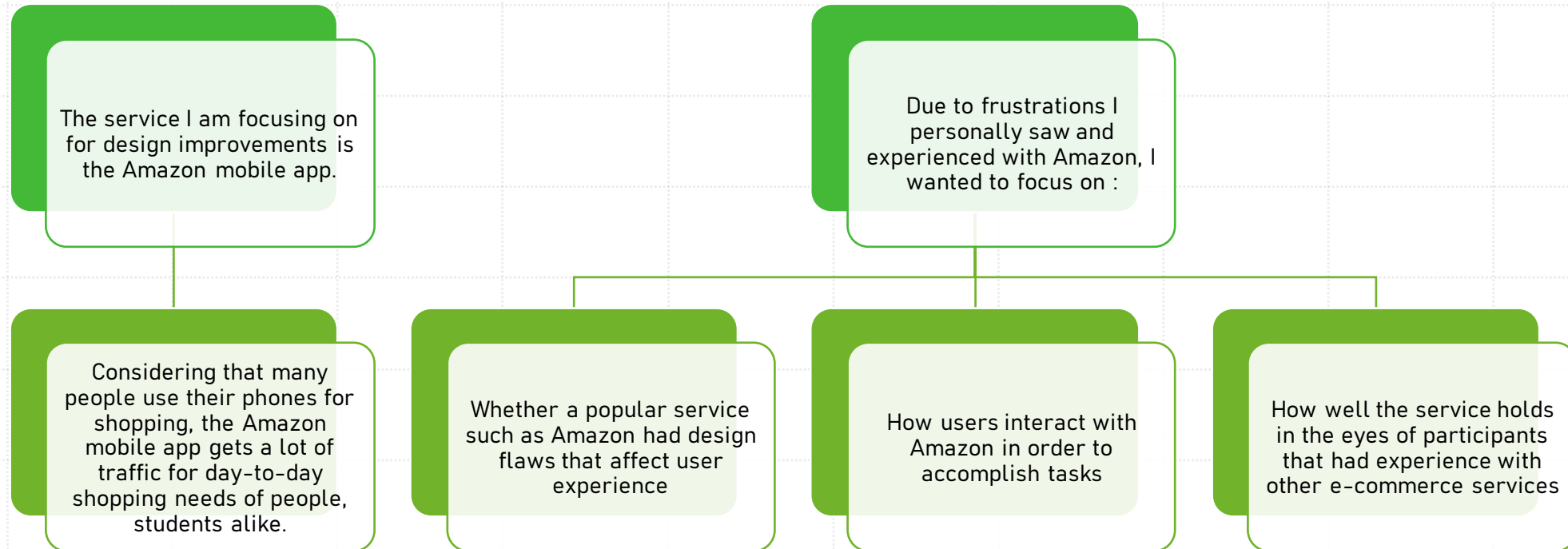
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Assignment 1

Ege Seyithanoglu – October 4, 2022



Problem Definition & Design Focus



Contextual Inquiry - Participant Information

In-Person Contextual Inquiry was conducted

Participant Demographics & Information:

JHU student ('24),
Male, 20 years old,
Turkish

Chemical and
Biomolecular
Engineer Major

From Istanbul, Turkey

Familiar with Amazon,
however more
accustomed to Turkish
online stores such as
"Hepsiburada"

When online shopping,
mainly uses his cell
phone

Recently moved to a
new apartment, and
still in search for
certain items such as
kitchen appliances

TASKS:

The participant was asked to simulate an online shopping task sequence (based on real-life shopping needs)

Search and find an item (microwave), **filter / sort** search, **compare** items, **read** reviews, **add** to cart, **buy**

Contextual Inquiry – Insights

General :

- Used his phone to access his Amazon account, and emulated the shopping task sequence for a microwave

Search & Filtering :

- Didn't encounter any problems with the initial search query design
- Was frustrated with having to scroll down excessively through the filters page, didn't want to see options for filters he didn't want to touch (vocally compared it to competitor e-commerce site)
- Didn't like that he couldn't select his own price ranges, and he was frustrated because of the lack of sort options (the sorting options were at the bottom of the filters, the participant was debriefed after contextual inquiry where the sorting options were)




Contextual Inquiry – Insights

Accessing Item Information :

- Didn't like how in order to access item details or customer reviews, he had to scroll down excessively through multiple ads (verbally compared to competitor e-commerce site)
- Had trouble using the compare feature as it didn't allow him to chose specific items to compare

Add to Cart & Buy :

- Had no problems with adding items to the cart, but had frustrations over not being able to create 'shopping lists' for related items he wants to buy later
- Liked the simplicity of the buying process



Contextual Inquiry – Problem Understanding

Summarized Problems

- The participant had problems in terms of discoverability and ease of use of the Filtering & Sorting features of the app
- The participant had frustrations in terms of accessing product information and customer reviews
- The participant had problems in terms of comparing different items with each other
- The participant had frustrations with the lack of lists to add items to, and the lack of access to crucial buttons such as “Add to Cart” and “Buy” once he had scrolled down

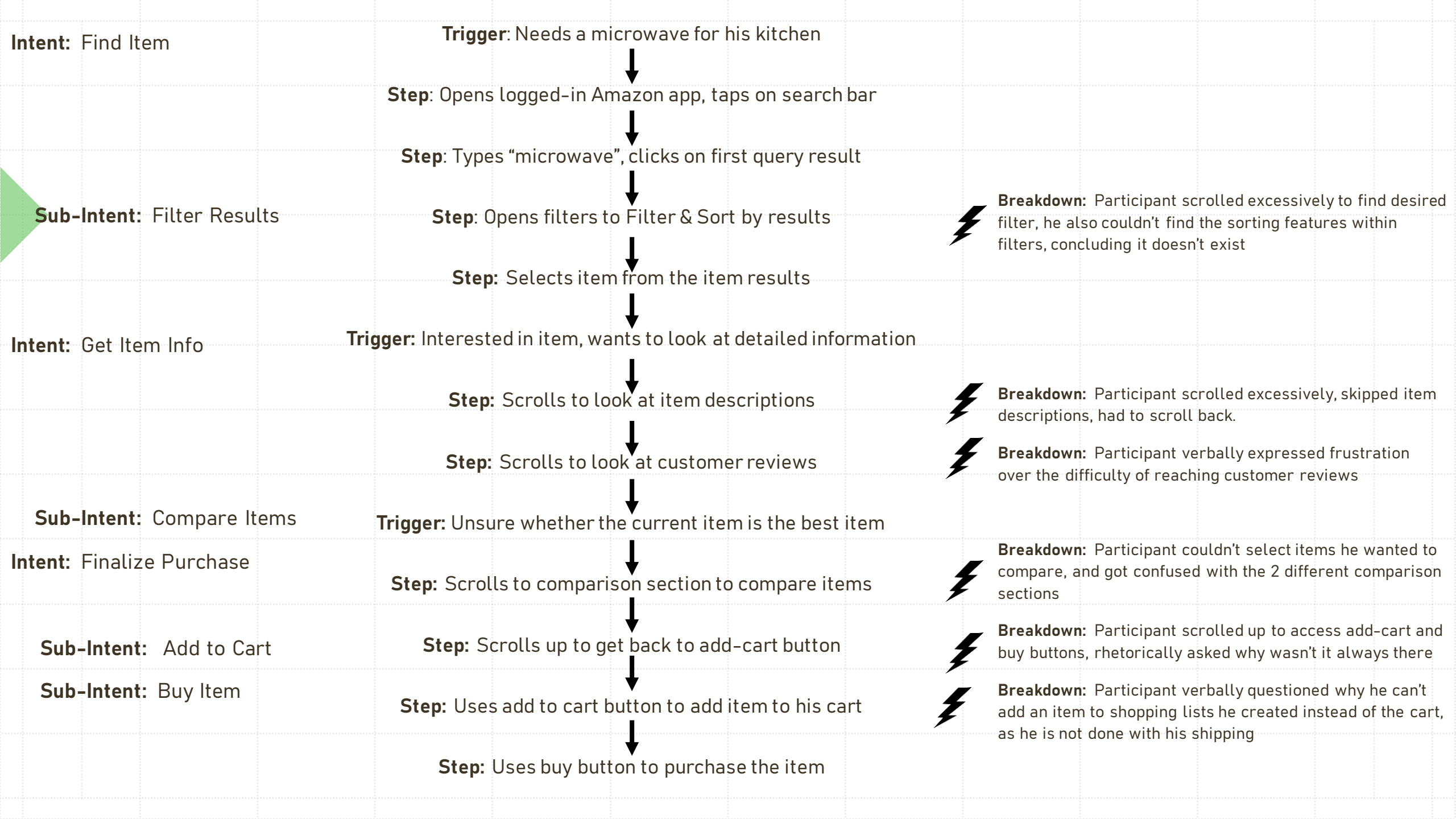
Prototype Ambitions


- I plan to redesign Filter & Sort features to make them more discoverable and easier to parse through
- I plan to redesign the item page to present crucial information, and have the crucial buttons accessible continuously
- I plan to redesign the comparison function so that the user has easier time comparing multiple items
- I plan to redesign the add to cart function for the user to have access to individual shopping lists



Sequence Model – Insights

- The sequence model was created based on the verbal frustrations the participant expressed, any breakdowns the participant noted, or any breakdowns observed during his contextual inquiry
- The participant mostly had frustrations with the inconvenience of finding information and the overall visual clutter present on the app when he wants to access s item information, customer reviews of filter parameters
- The participant also had frustrations in relation to certain dysfunctional actions such as compare or add to cart, which limit his desired pattern of action and force him to abide by the rigid lines drawn by the app
- The participant mostly relied on visual cues, such as buttons and checkboxes, instead of pre-established mental models during his usage of the Amazon app, which made him susceptible to miss certain functions, such as the sorting option hidden in the filter menu, which he assumed didn't exist as there were no clear visible button





Paper-Based Prototype – Marvel App

Initial Prototype

A paper-based prototype was created with a re-design of key elements indicated by the contextual inquiry, using sheets of paper, scissors and a pen

Certain repeating components were cut out to be re-usable elements

Marvel App and Prototyping

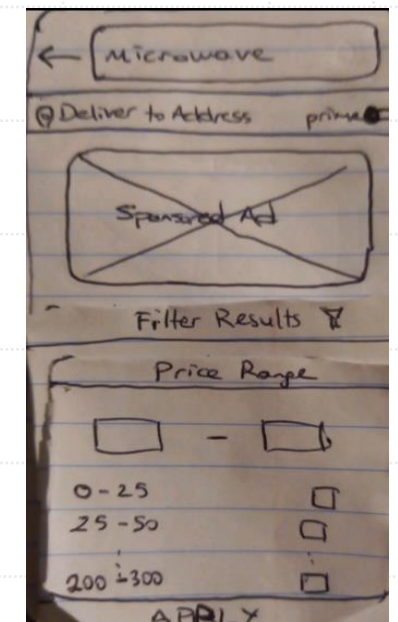
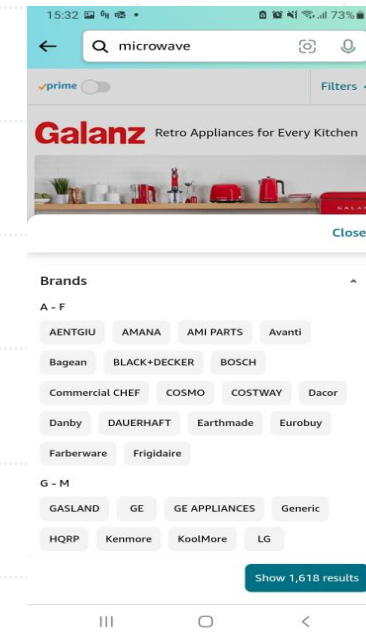
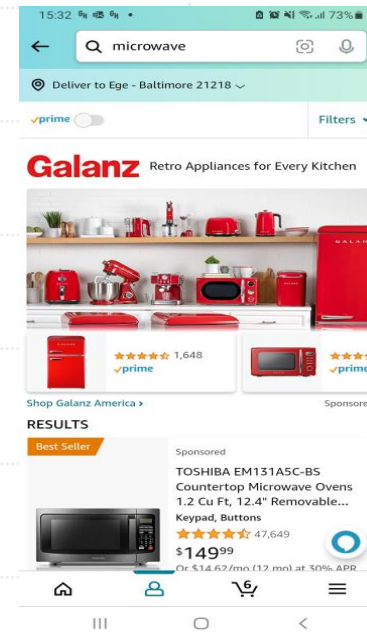
By taking pictures of the layouts, and using the Marvel App to link different pages together for transitions, an interactable mobile paper-based prototype was created

The link is viewable online and can be found here: [Amazon Redesign Prototype](#)

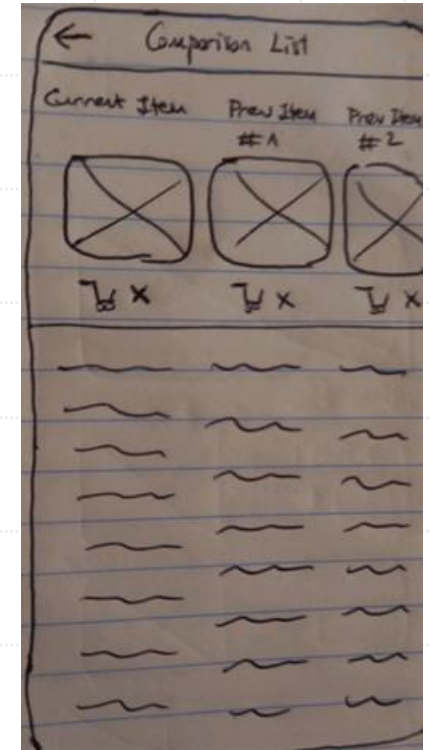
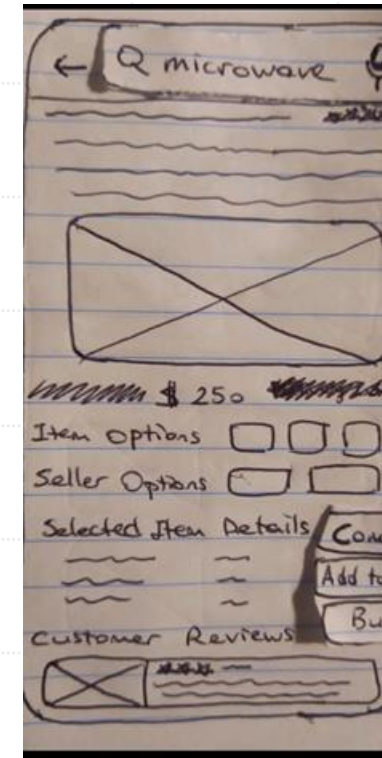
Paper-Based Prototype

– Key Features

- Sorting & Filtering Organization
 - A sorting button was added for easier discoverability
 - Filtering options were decluttered
 - Options for filter not shown if not selected

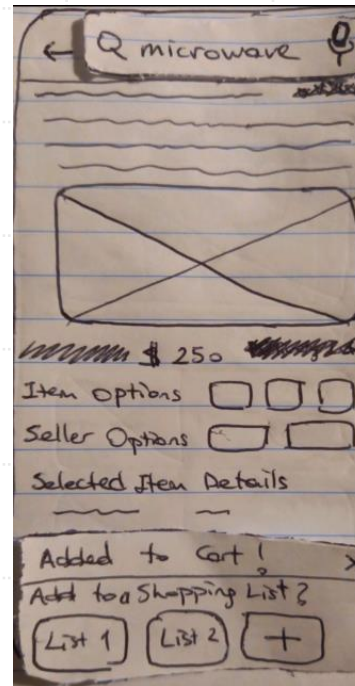
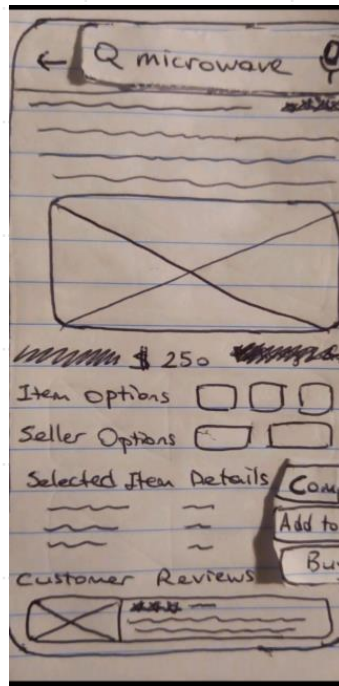
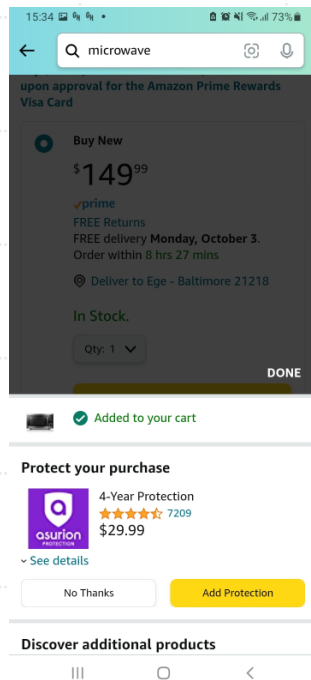


Paper-Based Prototype – Key Features



- Item Page Organization & Comparison Function
 - Item details and reviews were moved up for easier access
 - Compare button was added
 - Comparison was made app-wide, and user selectable

Paper-Based Prototype – Key Features



- Floating Action Buttons & Shopping List
 - Made “Compare”, “Add to Cart” and “Buy” fabs
 - More accessible even when scrolling
 - Actions are clear and more accessible
 - Added shopping lists
 - The user can create and add items to shopping lists

Paper-Based Evaluation – Participant Information

Participant and Task:

Participant kept the same for adequate comparison

Task kept same as much as possible in order for equal comparison with the original Amazon app design

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Paper- Based Evaluation – Interview



The evaluation interview was conducted in-person



The participant was sent the link of the Marvel App to access on their phone



The participant was able to navigate through the search procedure and moreover had no problems with sorting or filtering the item lists. They were able to do this without much hesitation – **Learnability / Efficiency**



The participant was able to view the item descriptions, and was able to easily access the comparison function – **Satisfaction**



The participant was able to also easily interact with the “Add to Cart” and “Buy” buttons, and interacted with the “Add to List” actions without any hesitation, however, might have not understood the difference between cart and list – **Learnability / Discoverability**

Extra: Embedded Field Notes

Contextual Inquiry Field Notes (09.28.2022):

The participant was observed and his reactions to design were marked down as “GOOD”, “BAD” or “MIXED” if there were positive and negative aspects simultaneously.

Task → Find Item

- Search bar interaction – **GOOD**
- Search bar displays previous searches before query entry – **GOOD**
- Search bar automatically displays options as he types – **GOOD**
- Clicking on search result redirects to page of desired items without any problems – **GOOD**

Task → Navigate Item List, Filter & Sort

- Products have price and delivery information on item cards – **GOOD**
- Filter option and results have an ad that separates them – **BAD**
 - Participant didn't have a problem finding it, however, questioned the positioning of the Filter button (**FRUSTRATION**)
- Filter list has too much information to parse through – **BAD**
 - Filter options such as “BRAND” had all the possible parameters already listed before the participant wanted to access them, so he had to scroll down excessively to access filter options he desired (**FRUSTRATION**)
- Sorting not available – **BAD**
 - Even though the sorting feature was within the filtering options, it was at the very bottom and the user never bothered to scroll that much, so he assumed that there were no sorting options offered by the app (**BREAKDOWN**)

Task → Access Item Information

- Had some product images and price information immediately accessible – **GOOD**
- Detailed product description, technical information and customer reviews were not immediately accessible – **BAD**
 - The participant verbally expressed his frustration that he had to scroll down through many ads before he could reach valuable information about the product (**FRUSTRATION**)
- Comparing items limited to Amazon selected items at a time and there are two different comparison blocks in different sections that compare different information – **BAD**
 - The participant tried to compare other items with the current item he was viewing, but due to the limited viewing options got frustrated over having to remember information, scroll and compare; and eventually abandoned trying to compare items (**BREAKDOWN**)
 - The participant was confused about the existence of two different comparison sections, and verbally expressed his frustration that different information and different products were compared between the two sections (**FRUSTRATION**)

Task → Add to Cart & Buy Item

- Adding item to cart is easy when button is accessible – **MIXED**
 - Adding item to cart was a quick action that didn't have any issues in terms of operation for the participant
 - The participant, however, did note that it was 'annoying' that the add to cart button was not accessible to him all the time even when he had scrolled down (**FRUSTRATION**)
 - The app did make the button accessible outside of its scope, however, only if the user did a 'fast scroll down/up', so the participant didn't quite realize it
 - Participant wished there was an option to create and keep specific shopping lists (for example a kitchen shopping list) instead of adding items to cart as he still is undecided on items
- Buying item is easy – **GOOD**

Extra: Embedded Evaluation Video

