EARLY EVALUATION REPORT

GROUP NO 4

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INTRODUCTION

The purpose of this document is to give a detailed description about the medium fidelity vertical prototype and its early evaluation using cognitive walkthrough of the Deal Finder application.

The Deal finder application aims to make the online shopping experience of the shoppers better by extensive search to find deals available for queried products, shows customers best deals for products of their choice, show different coupons or offers and review/ratings associated with the product.

The document consists of 3 tasks and their respective prototypes along with feedback which were collected using interviews conducted with a team of 3 people. It also contains the analysis of the feedback received from the evaluators.

This document is intended for the eyes of the developers working on the software and the project leaders.

TABLE OF CONTENTS

METHODOLOGY

- Prototype: **Medium Fidelity Vertical Prototype**
- Evaluation: **Early Evaluation**
- What is the method adopted for the Early Evaluation?
  - **COGNITIVE WALKTHROUGH**
    - It is a usability evaluation process that is used by the UX Team's evaluators to analyze the thoughts of users as they walk through assigned tasks and answer a set of questions.
    - The purpose of the cognitive walkthrough is to focus on the user's ability to learn and understand the software system either as a new user or an infrequent user.
- Steps of the Cognitive Walkthrough:
  - To identify and define the user personas most likely to use our Deal Finder Service.
  - To study and learn what tasks would be most important for most target users to accomplish their goal of hassle-free shopping by comparing prices on major e-commerce websites.
  - Design scenarios that involve one or more of the above-mentioned tasks.
  - To walk the evaluators through each of the major tasks and have them provide their feedback on the usability requirements of the software.
    - During the assessment, the group focuses on one particular task, breaks it down into the component steps, and asks four questions of each of the steps (Wharton, Rieman, Lewis & Polson, 1994):
      - ✓ Will the user try to achieve the right effect?

- ✓ Will the user notice if the correct action is available?
- ✓ Will the user associate the correct action with the effect trying to be achieved?
- ✓ If the correct action is performed, will the user see that progress is being made?

- The evaluators' team consisted of 3 undergraduate students at the Indian Institute of Technology, IIT Guwahati. One of the evaluators acted as the moderators, leading the other evaluators through the Deal Finder Service Prototype and engaging them in discussion around the questions listed above.

- The target users, tasks, scenarios and the correct action sequence were decided upon before beginning the walkthrough.

- **Target User Persona:** For the purposes of the study, evaluators assumed that the users of the Deal Finder Service would be people who are avid and frequent shoppers with knowledge about various e-commerce platforms but lacking the time to browse each website individually. They are assumed to be familiar with the general process of online shopping.

SCENARIOS

SCENARIO 1:

Rohan, a college student, wants to buy a pair of wireless earphones for himself. He prefers boat earphones and won't buy any other company products. He does not have a specific model in mind. He wants to browse the available options and choose the best choice based on price, reviews and features. Help him find the best product and redirect him to the website that sells it.

TASKS:

- ✓ User clicks on the search bar and types 'Boat earphones and headphone'.
- ✓ User clicks the 'Search Button'.
- ✓ User sets certain desired filters on the displayed products and clicks 'Apply Filters'
- ✓ User clicks the desired product.
- ✓ User clicks the 'Go to Store' button to purchase the product from the desired website.

QUESTIONS:

- ? Did you find the appropriate product suggestions by searching for the product category and brand name?
- ? Was the feature to search for the product apparent?
- ? Was locating and applying filters on the suggestion list easily locatable?
- ? Were similar product models in the list when the model was not specified?
- ? Were products of any other category also visible in the list?
- ? Were you able to go to the parent website on which it was available?
- ? How easy was it to navigate between different interfaces?

SCENARIO 2:

Arya, a software engineer, is a very busy woman whose personal mobile phone was recently stolen. Now she wants to buy a new phone, but she is very occupied with her work and can't dedicate time to search each and every e-commerce website to come up with the best possible price for her desired phone. Help her find the best deal and redirect her to the corresponding website.

TASKS:

- ✓ User clicks on the 'Electronics' product category.
- ✓ User clicks on the 'Mobile' sub-category.
- ✓ User clicks on the 'Sort By' filter and sets it.
- ✓ User presses 'Apply Filter'.
- ✓ User selects the desired product.
- ✓ User presses 'Go to Store' to purchase the product from the desired website.

QUESTIONS:

- ? Did you find the appropriate product type?
- ? Did you find the appropriate product category in the product type searched?
- ? Did the platform show any products other than the queried one?
- ? Was the way to go to the parent website quickly locatable?
- ? How easy was it to find the best deal?
- ? How easy was it to navigate between different interfaces?

SCENARIO 3:

Gayatri wishes to gift herself a dress as a birthday present. She has chosen some dresses, but she wants to wait for a price drop or any "dhamaka" sales due to financial constraints before buying them. Help her streamline this process and find the best possible prices for her desired products.

TASKS:

- ✓ User clicks on 'Wishlist'.
- ✓ User presses 'Set Price Alert'.
- ✓ User clicks 'OK' on the alert message displayed.
- ✓ User clicks on the notification symbol.
- ✓ User scrolls to see products which of them have had a price change.

QUESTIONS:

- ? Was adding the chosen product to the Wishlist quickly doable?
- ? Was the mode of notification alert efficient?
- ? Was the feature Wishlist easily locatable?
- ? Were previous notifications, if any, accessible?
- ? Was the mode of notification alert efficient?
- ? How easy was it to navigate between different interfaces?

FINDINGS & RECOMMENDATIONS

EVALUATORS' FEEDBACK:

(Legend used: ✓ for feedback which is positive regarding our prototype and × for feedback which can be used to improve our prototype)

- ❖ **Scenario 1:**
    - ? Did you find the appropriate product suggestions by searching for the product category and brand name?
        - ✓ Yes, the product search on the basis of keywords searched in the search bar was appropriately placed and also displayed results in a proper way.
    - ? Was the feature to search for the product apparent?
        - ✓ Yes, the search bar was properly placed in a visible area which helped the users to search for their desired products easily.
    - ? Was locating and applying filters on the suggestion list easily doable?
        - × Although the filters were easily locatable, the formatting and design of the feature wasn't at the best level. The filter categories overlapped on each other and made it difficult to apply multiple filters.
        - × The "Cancel Filters" and "Apply Filters" buttons were very close together which might give rise to inadvertent errors on part of the user.
        - × The price range selector is not clearly understandable.
    - ? Were similar product models in the list when the model was not specified?

- ✓ Yes, when model was not specified, the most similar product models were displayed in the same category, thus making it easier for the users to search for their desired products.
- ? Were you able to go to the parent website on which it was available?
    - ✓ Yes, the redirection feature was very good and helped to reach the corresponding website very easily, without much problems for the user.

❖ **Scenario 2:**
- ? Did you find the appropriate product type easily?
    - ✓ Yes, the division of the products into major categories really helped in the easy redirection to the desired product type.
- ? Was the primary objective of sorting products on the basis of prices easily achievable?
    - ✓ Yes, the sorting feature was a very good bonus since it saves time and also helps the user to maintain some sort of control on the order of the products being displayed.
    - × However, the sorting buttons overlap on top of the filter buttons and cause visual problems for the user.
    - × Also, the sorting and filtering features should not be kept close together since the functionalities are entirely different.
- ? Was the way to go to the parent website quickly locatable?
    - ✓ Yes, the redirection to the parent website was a very good feature and saved a lot of time which achieves one of the main objectives of the provided scenario.
    - ✓ The corresponding button was very aptly placed and is clearly visible to the user.
- ? How easy was it to find the best deal?
    - ✓ The comparing prices being displayed helps the user to save time in searching for prices on different websites.
    - ✓ The tabular format also helps the user visually.

❖ **Scenario 3:**
- ? Was adding the chosen product to the Wishlist easily achievable?
    - ✓ Yes, the heart symbol was an added bonus since the color change could be easily visualized by the user and help them feel in control of the interface.
    - ✕ The "Wishlist" button in the products page is not clear as to its functionality.
- ? Was the feature Wishlist easily locatable?
    - ✓ Yes, the Wishlist tab in the menu bar of the website makes it easily accessible to all kinds of users.
    - ✓ Since it could be accessed from all the pages, it makes it all the easier for users.
- ? Was the mode of notification alert efficient?
    - ✓ Yes, the alert button was a very efficient way of providing notifications and reminders to the user.
    - ✕ However, the notification button when clicked only displays that there has been a price change without displaying the actual details of the products whose price changes have occurred.
- ? Were previous notifications, if any, accessible?
    - ✕ No, the notification dropdown doesn't display any previous notifications. This hinders the user as he or she might want to keep track of previous price changes to predict future ones.
- ? How easy was it to keep track of price changes for the user?
    - ✓ The notification system to keep the user apprised of the price changes was a good feature as it prevents the need for users to retain information, thus conforming to the eight golden rules of Schneiderman.
    - ✕ However, the Wishlist page shows all products currently in the Wishlist irrespective of whether there has been a price change or not.

FEEDBACK ANALYSIS & RECOMMENDATIONS:

SEVERITY RANKINGS:

RANKING	SEVERITY OF USABILITY PROBLEMS	DESCRIPTIONS
● ● ●	Major Usability Problems	Important to fix, should be given high priority
● ● ●	Minor Usability Problems	Finishing the problem should be given low priority
● ● ●	Cosmetic Problem Only	No need to fix the issue unless there is available time

Severity ranks are based on those defined by Jakob Nielsen.

FINDINGS SUMMARY & ANALYSIS:

SCENARIO	SEVERITY	FINDINGS	RECOMMENDATIONS
1	● ● ●	Although the filters were easily locatable, the formatting and design of the feature wasn't at the best level. The filter categories overlapped on each other and made it difficult to apply multiple filters.	The filters should be properly distinguishable from each other, thus improving readability and making things easier for first time users.
1	● ● ●	The "Cancel Filters" and "Apply Filters" buttons were very close together which might give rise to inadvertent errors on part of the user.	Position the two buttons separately and provide ample distance between the two so that users don't make the mistake in a hurry.
1	● ● ●	The price range feature is not clearly understandable.	Adopt a different price range selector that makes it more visually appealing to the users.
2	● ● ●	The sorting buttons overlap on top of the filter buttons and cause visual problems for the user.	The spacings should be improved and the buttons made clearer.

2		The sorting and filtering features should not be kept close together since the functionalities are entirely different.	We can make two separate categories of filters so that sorting and applying filters are two different options for the users and the choice is provided entirely to the users.
3		The "Wishlist" button in the products page is not clear as to its functionality.	The "Wishlist" button in the products page should be renamed "Add to Wishlist" so as to make it more evident for first-time users.
3		The notification button when clicked only displays that there has been a price change without displaying the actual details of the products whose price changes have occurred.	The brief details of the products for which there has been a price change can be displayed in the notification dropdown.
3		The notification dropdown doesn't display any previous notifications. This hinders the user as he or she might want to keep track of previous price changes to predict future ones.	All previous notifications should be made visible in the notification dropdown.
3		The Wishlist page shows all products currently in the Wishlist irrespective of whether there has been a price change or not.	On clicking on a respective price drop notification, the page will now redirect to the specific product and not the entire Wishlist, thus making it easier for users to know which specific product has experienced a drop in prices.

BROADER USABILITY ISSUES:

After careful analysis of the feedback received from the evaluators, we have summarized the following broader usability issues:

- ? **Is the effect of the action same as that of the goal of the user at a certain point?**
  - Yes, all the actions were in conjunction with the goal of the users and the users didn't face any unintended consequences of their actions.
  - In this respect, our prototype performed admirably according to the evaluators.
- ? **Is the user clearly able to view the controls for a particular action?**
  - According to the evaluators, there was a clear scope of improvement in our prototype in this regard.
  - While some features were greatly appreciated, some others need to be improved with respect to their positioning, visual appeal and overall readability.
  - Some features overlapped which can cause severe visual issues with first time as well as seasoned users.
  - This is an area that we need to work on to improve our final product.
- ? **Will a user see that the control produces the desired effect?**
  - Yes, features such as Add to Wishlist button and bell alerts provide visual aid to the user with respect to the progress after their control action.
  - This also keeps our prototype aligned to the eight rules of Schneiderman.
- ? **Will a user understand the feedback provided by the system to proceed correctly?**
  - In most cases, the feedback provided suffices the requirements of all kinds of users.

- However, in case of certain features like "Add to Wishlist" the feedback is not enough to elicit proper response from the users.

? **What happens in case of an error?**
- In case of errors while logging in or registering, appropriate error feedback is provided to the user, thus helping them revert back to their previous state without much problem.
- In case of other errors, the user can simply go back and resume their actions from where they left off. Since a logged in user state saves the actions, there won't be any problem of resumption from the previous state in case of errors.

? **How does a user, who is familiar with other systems that perform similar tasks, react?**
- Since our platform is designed in a similar way to conventional shopping platforms, it won't be difficult for any kind of users to navigate through our system.
- Added benefits like notifications and price comparisons would in fact make our product more appealing to such users.

CONCLUSION

The main focus of our Deal Finder Website Application is to make shopping easier, faster and hassle free for all kinds of users. Conventional online shopping methods require a lot of time investment and also requires users to maintain huge pieces of information regarding price changes, product features, offers and so on. Our website aims to streamline this process and make all of this possible on a single platform.

On performing this Early Evaluation and preparing the subsequent report after our Medium Fidelity Prototype Development, our team learnt that there are a couple major and some minor issues that need to be fixed with regards to the overall UI/UX of our prototype. The main issues that we found out were:

- The positioning of some buttons and options weren't visually compatible with most users and needed proper readjustment to improve user experience.
- The notifications about price drops also requires some modifications to make remembering prices of various products easier for the user.

There were some minor issues like names of buttons which can also contribute to the overall aestheticism of the website once improved.

All these issues reported by the evaluators were properly compiled, analyzed and would be implemented in our final product so that it can provide a proper and efficient user experience to all kinds of users.