


HMI Assignment - 7

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Problem Statement:

The objective of this assignment is to apply the Cognitive Walkthrough and Think-Aloud Protocol to previously completed prototypes. Briefly report the key findings, explaining how these findings point to insights regarding understanding user interaction, identifying usability issues, and validating design decisions.

Let's understand this with the perspective of one of the user personas we created:



Aryan Singh
College Student

Age: 19 years	Country: India
Sex: Male	State: Rajasthan
Marital status: Un-Married	Education: Graduation[Active]

BIOGRAPHY

A tech-loving college student who is passionate about gaming, technology, and fitness. He has a keen interest in exploring the latest trends arriving in the market. He blends his lifestyle by learning new things and staying active through exercise.




SHOPPING HABITS

Carefully compares products online before making a purchase. Prefers to shop from his favorite gaming and tech brands rather than exploring a lot into the other brands. Always prefers to pay online instead of cash and sometimes makes expensive buys too.

GOALS AND OBJECTIVES

- Expand tech knowledge
- Give hands on latest games
- Budget Wisely
- Achieve academic success

SOCIAL NETWORKS



INSTAGRAM WHATSAPP FACEBOOK

PAIN POINTS

- Always looking for flexible delivery options due to busy schedule
- Frustrated with using multiple mobile apps
- Usually has a limited budget for shopping
- Doesn't have a lot of free time due to engagement in academic activities

INTERESTS

Technology

Gaming

Fitness

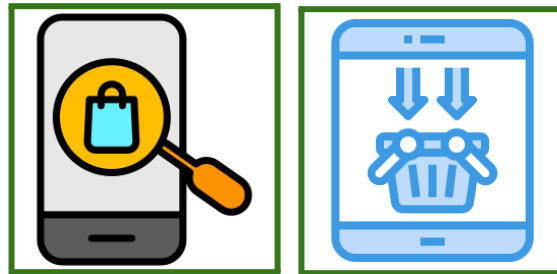
Music

Cognitive Walkthrough Findings:

- **Understanding Interface Elements:**

The user may struggle to grasp the meaning of certain icons and buttons, indicating a lack of clarity in the interface design. This suggests that the visual representation of these elements may not effectively convey their intended function. This may also confuse the user.

For example:

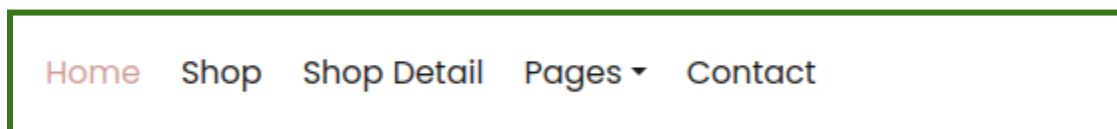


These icons are intended to represent searching similar products and adding to basket but these may be confusing for the user.

- **Navigation Flow:**

The navigation flow was found to be non-intuitive, resulting in users becoming lost or confused while attempting to complete tasks. This implies that the sequence of steps required to accomplish tasks may not align with users' mental models or expected pathways, leading to usability challenges.

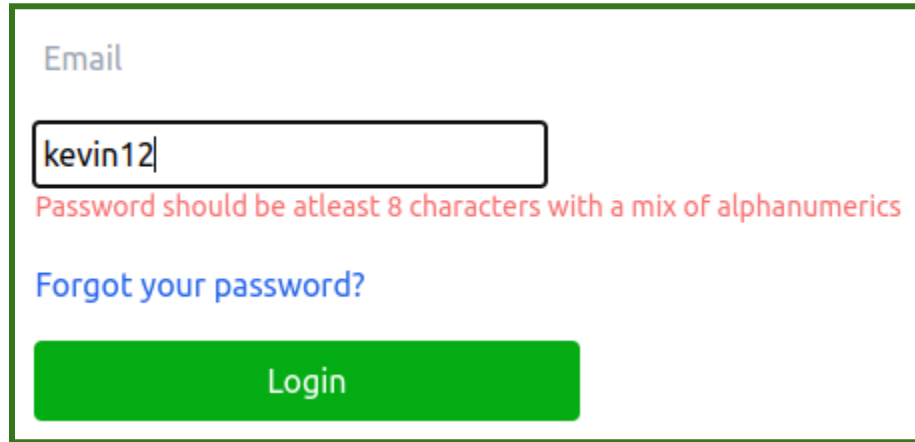
For example:



This is a good navigation bar for a shopping application. Sometimes, in some pages of the application, the home button is missing and the main logo is intended to act as the home button. This may be troublesome for the user.

- **Error Messaging:**

If error messages are not sufficiently descriptive, it may leave the user unsure of how to rectify the mistakes. This indicates that error feedback provided by the system should be clear and should not leave the user frustrated.



The image shows a login form with a light gray background. At the top, the word "Email" is written in a light blue font. Below it is a white input field with a black border containing the text "kevin12". Underneath the input field, a red error message reads "Password should be atleast 8 characters with a mix of alphanumerics". Below the error message is a blue link that says "Forgot your password?". At the bottom of the form is a green button with the word "Login" in white text.

Messages should be concise, clear and help through all the possibilities for the user.

- **Overlooked Features Due to Poor Organization:**

Certain features were overlooked by users because they were buried within submenus or not prominently displayed. This highlights a lack of effective organization within the interface.

For example:

Filter options should not be buried deep in menus in a shopping application. It must be clearly visible at all times whenever a user is reviewing a product.

Insights:

- **Need for Clearer Visuals (icons and text) and Organization:**

The findings suggest a need for clearer visual cues and better organization of features to enhance user understanding and navigation. Improving the visual representation of interface elements and streamlining the navigation structure can help users more easily locate and utilize desired functionalities.

- **Enhancing Error Messages for Improved Guidance:**

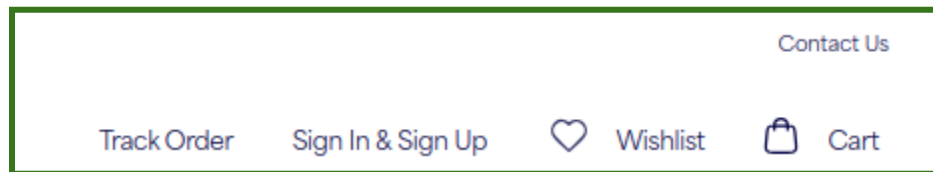
Error messages should be more informative, providing clear guidance on how users can resolve issues effectively. By offering specific instructions or suggestions for troubleshooting, the system can help users overcome errors more efficiently and continue with their tasks.

Think-Aloud Protocol Findings:

- **Frustration due to Missing Functions:**

Users experienced frustration when they couldn't find specific functions they expected to be readily available. This suggests a discrepancy between what users anticipated in terms of available features and their actual placement within the interface.

For example:



This application has functions to track order after making a purchase. Also they have provided a function to contact them in case a user wants. This leads to added user trust on the shopping application.

- **Hesitancy in Interacting with Elements:**

Some users hesitated to interact with certain elements because they were unsure of their functionality. This uncertainty implies a lack of confidence in users' interactions with the interface, which could potentially impede their overall user experience.

For example:



Users may hesitate to interact with these special offers, promotions and this may also intervene in providing a smooth experience of the application. So elements like these should either be placed smartly or if there is a pop-up or so then there should be clear buttons to get back to the previous activity.

Insights:

- **Aligning Interface with User Expectations:**

The findings underscore the importance of aligning the interface with users' mental models and expectations to improve usability. Ensuring that interface elements and functionalities are presented in a way that corresponds with users' anticipated interactions can lead to a more intuitive and user-friendly experience.

- **Utilizing User Feedback for Improvement:**

Leveraging user feedback is essential for identifying areas for enhancement and validating design decisions. Incorporating insights gleaned from user testing enables designers to iteratively refine the interface, better meeting user needs and preferences over time.