National University
of computer and emerging sciences

HUMAN COMPUTER INTERACTION

HOMEWORK # 01

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PROJECT NAME: WALLBUY
(a platform for technology seekers)

INSTRUCTOR:
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Standards Of Usability

1) Usability of Product:

Our project is efficient and responsive in respect of complete transaction in only 3 steps hence it makes the product usable in market.

2) User Interaction:

We have made sure that user interaction with wallbuy website stays attached by making it more interactive very frequently. We will test it from experienced customer who are really into shopping online for many years and they will pass the test cases to make sure it is user interacted.

3) Product Development Progress:

This ensures that the development and its process provide fruitful output after the releasing if product. The Development should save time, money and other resources that is why we have used evolutionary model so that product may launch in less duration but a little orientally designed using all requirement documentation so that the money and effort don't gets wasted.

4) Learnability:

The ease with which new users can begin effective interaction and achieve maximal performance. We made sure to achieve by using of clear metaphors and user framing time for each task being performed.

5) Error Tolerance:

It is the ability to handle maximum number of errors and such improvement is achievable in our project as major options have undo buttons or cancelling the transaction before executing it permanently, we also handled the errors using understandable pop ups of messages.

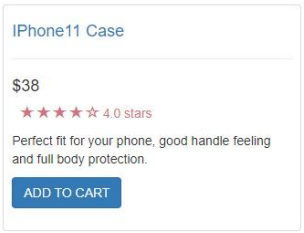
Principles to support usability On WallBuy

1) Learnability:

- Predictability:

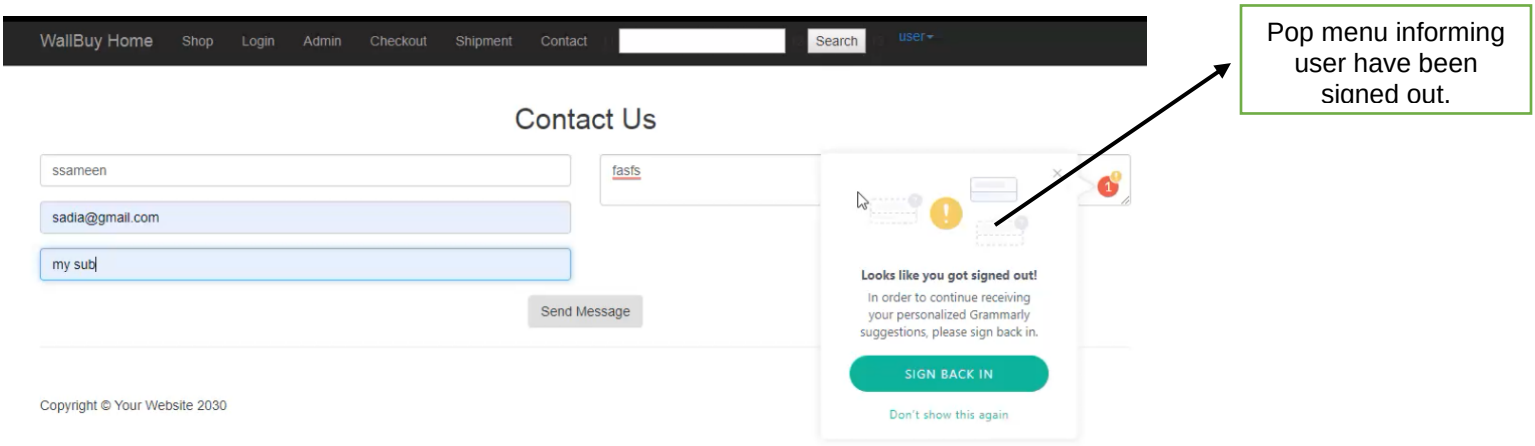
  When a task is easy to identify due to past experiences of any similar application then the predictability is achieved.

  For example, in our project the "add to cart" button is same as the button usually used on every e-commerce website.



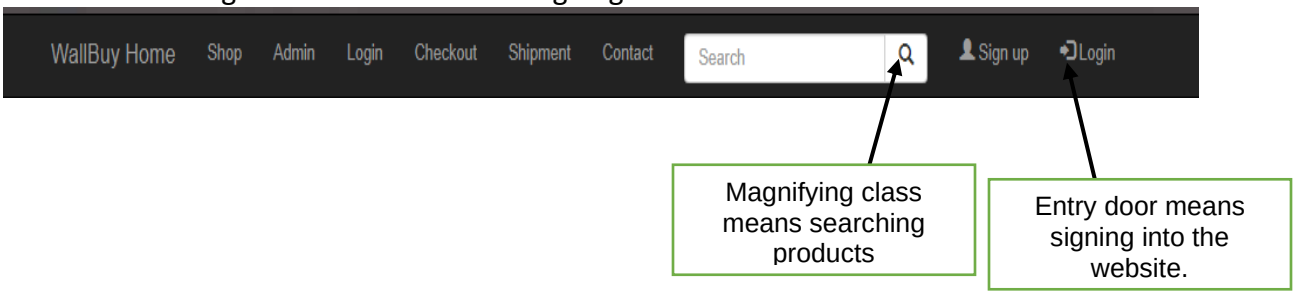
- Synthesizability:

  It is the ability of user to asses the effect of past operations on current state. For example, in our project if the user will type message in the contact window after signing out it will pop up a textual info.



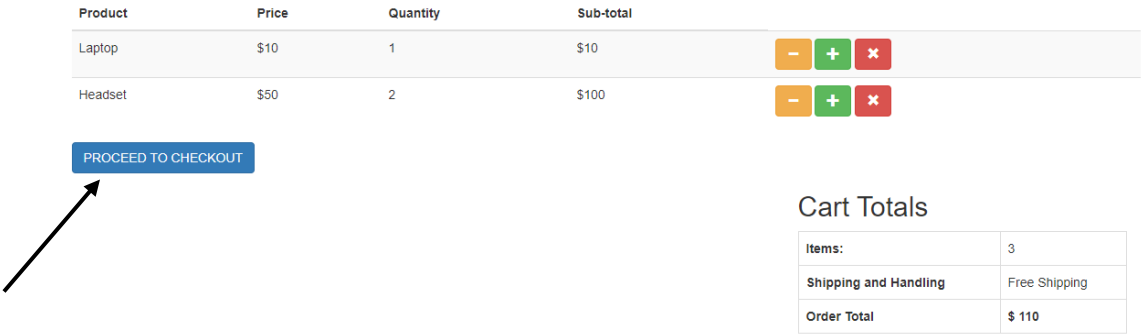
- Familiarity:

  The familiarity principle is concerned with the ability of an interactive system to allow a user to map prior experiences, either real world or gained from interaction with other systems, onto the features of a new system.
  For example, in our project the top nav bar has icons like one is the magnifying class which indicates searching of something in real life, second one is entry door which indicates entering into the session while signing in.



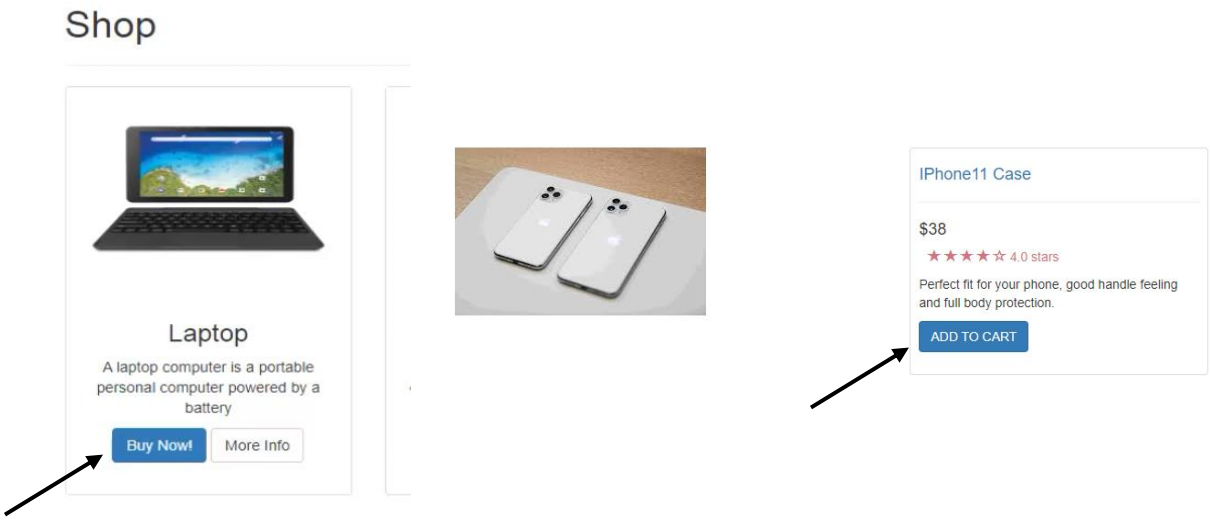
- Generalizability:

  This interactive design principle provides support for users to extend knowledge of specific interaction within, and across applications, to new, but similar situations.
  For example, in our project cart page has a functionality of checkout which quite used in every shopping to make the payments and billing.



- Consistency:

  To support generalisability, consistency is essential and is probably one of the most widely applied design principles in user interface design.
  For example, in our project on every window/page the next buying step button is of blue colour.

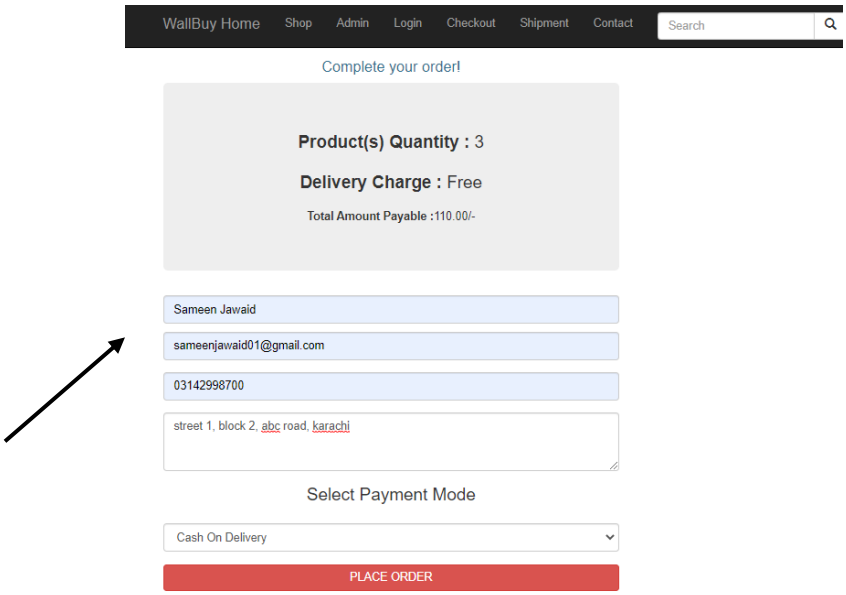


2) Flexibility:

- Dialogue Initiative:

  When the system controls the dialog flow, the dialog is said to be system pre-emptive. Conversely, when the flow is controlled by the user, the dialog is said to be user pre-emptive.

For example, in our project user is entering the billing form for proceeding onto the delivery process.

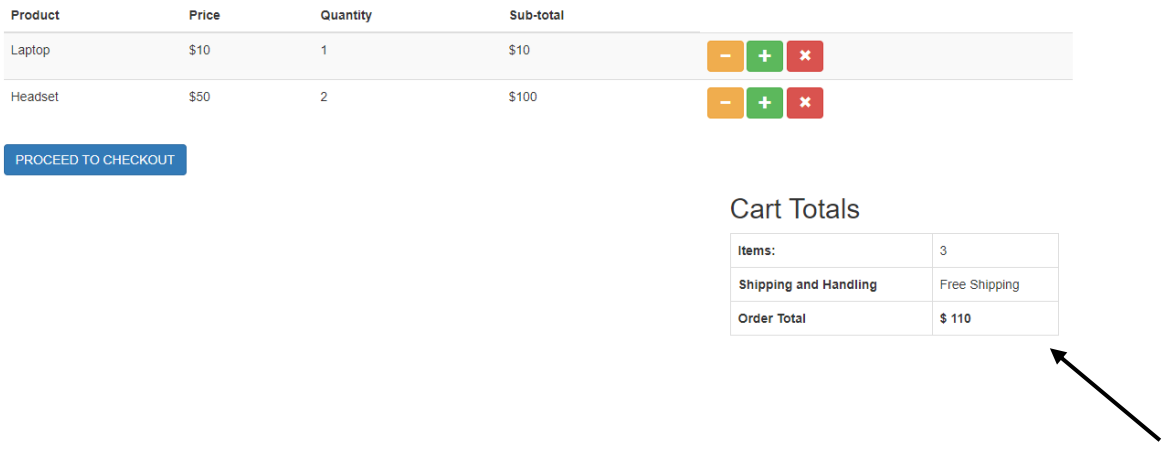


- <u>Multithreading:</u>

  Within a user interface a thread can be considered a part of dialog that allowing a task to be performed. Multi-threading within a interface provides support for multiple tasks to be performed at one time.
  For example, in our project user is able to edit the cart using the cart page also or from the home page at the same time.

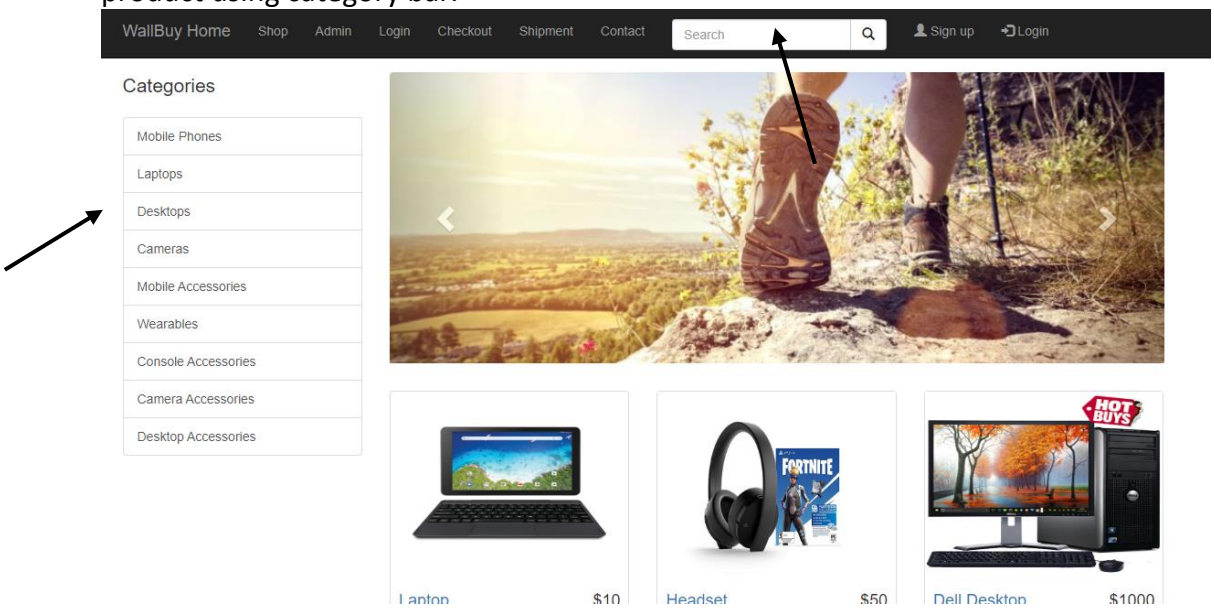
- <u>Task migratability:</u>

  Task migratability means passing responsibility of execution of tasks between user and system.
  For example, in our project whenever the user edits items in cart the responsibility is passed to the system for calculating the subtotal then billing total on spot displaying on page.



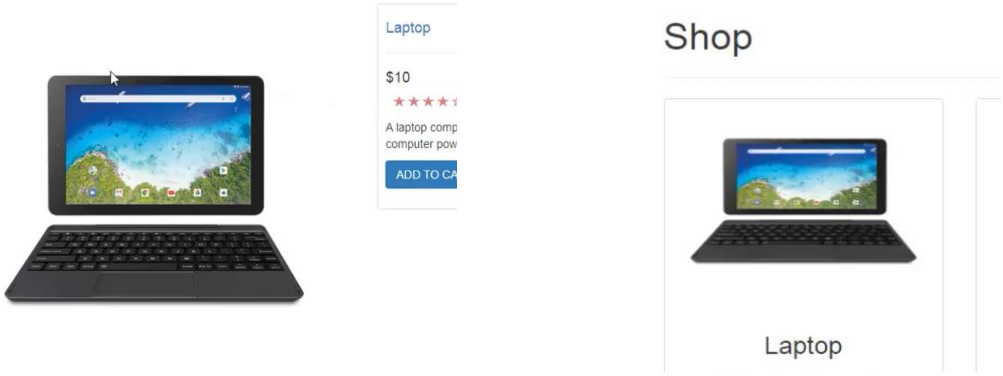
- Substitutivity:

  Substitutivity offers a user alternative way of specifying input or viewing output. Indeed, the distinction between output and input can be blurred.
  For example, in our project user can either search the product via typing or find the product using category bar.



- Customizability:

  The customisability principle supports a user's ability to adjust systems settings or features to a form that best suites the preferred way of usage.
  For example, in our project the customer is able to enlarge the product image on their own choice.



3) Robustness:

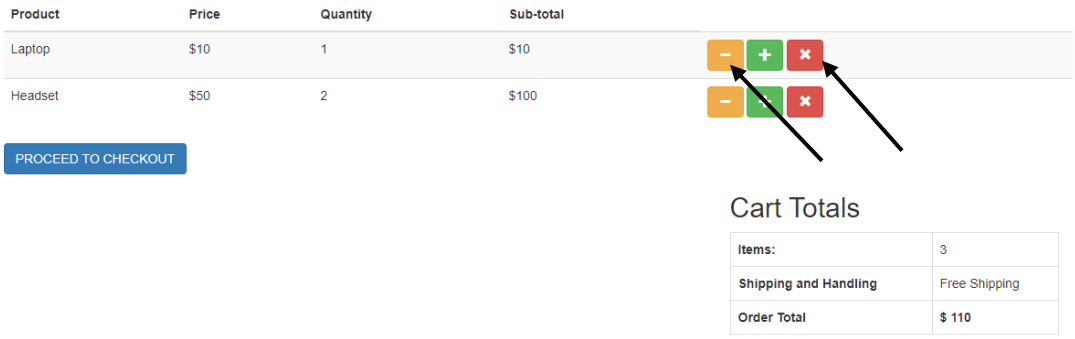
- Observability:

  Observability should provide users with an ability to evaluate the internal state from its representation. If a user cannot understand the internal state of the system, there is a high likelihood that the user's confidence will be very low.
  For example,

- ✓ Browsability: The side nav bar of category and top nav bar of windows helps the user to browse anywhere anytime.
- ✓ Defaults: The default quantity of the product added on first time is 1.
- ✓ Reachability: Every button image or URL text takes the user to a defining page.
- ✓ Persistence: If the user even terminates his browser then the after reopening the cart items will persists as before.
- ✓ Operational visibility: The successful order placement highlights the operational visibility.

- Recoverability:

  Users should be able to reach a desired goal after recognition of errors in previous interaction. Error recovery can be achieved in two ways, forward (negotiation) and backward (undo).
  For example, in our project user can delete if decrement the item if added accidentally using minus cross buttons.



- Responsiveness:

  Responsiveness is usually measured in terms of the rate of communication between the system and a user.
  For example, in our project user finds the search results in 0.004 seconds.

- Task Conformance:

  There are two aspects of task conformance, task completeness, and task adequacy. Task completeness is concerned with whether a system is capable of supporting the entire task that a user wishes to perform. The task adequacy is concerned with addressing the user's understanding of these tasks It is necessary that an interactive system should allow the user to perform the desired tasks as defined during the task analysis.
  For example, in our project all the functionalities are leading up to completing of shopping like:
  - ✓ add product-> cart->checkout->billing form->place order.
  - ✓ View product-> product details-> buy now-> cart->checkout->billing form->place order.