

Hick Hyman's Law

Shonali ks

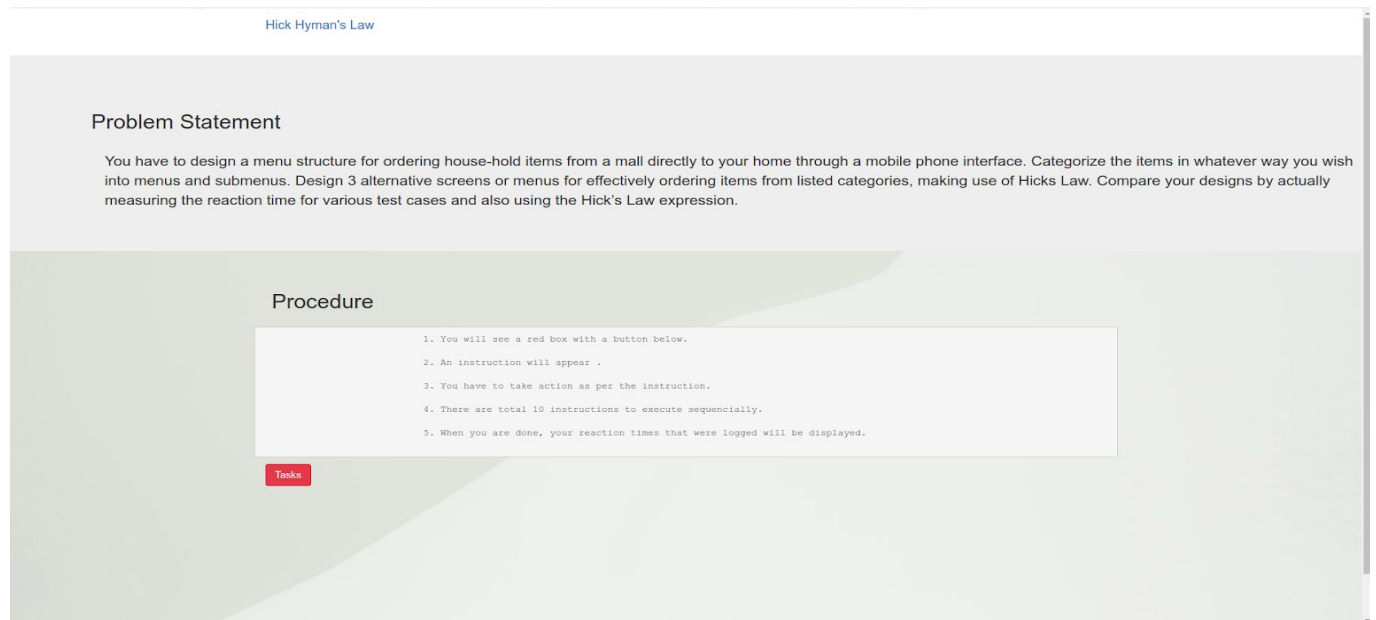
181IT244

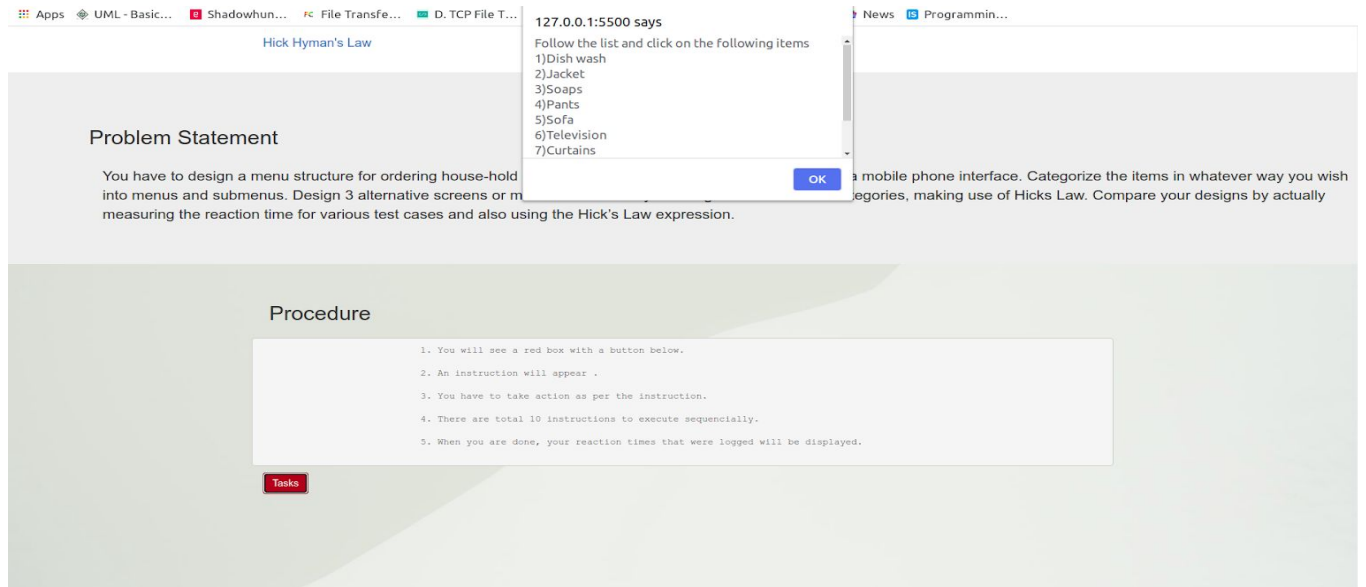
Problem Statement:

You have to design a menu structure for ordering house-hold items from a mall directly to your home through a mobile phone interface. Categorize the items in whatever way you wish into menus and submenus. Design 3 alternative screens or menus for effectively ordering items from listed categories, making use of Hicks Law. Compare your designs by actually measuring the reaction time for various test cases and also using the Hick's Law expression.

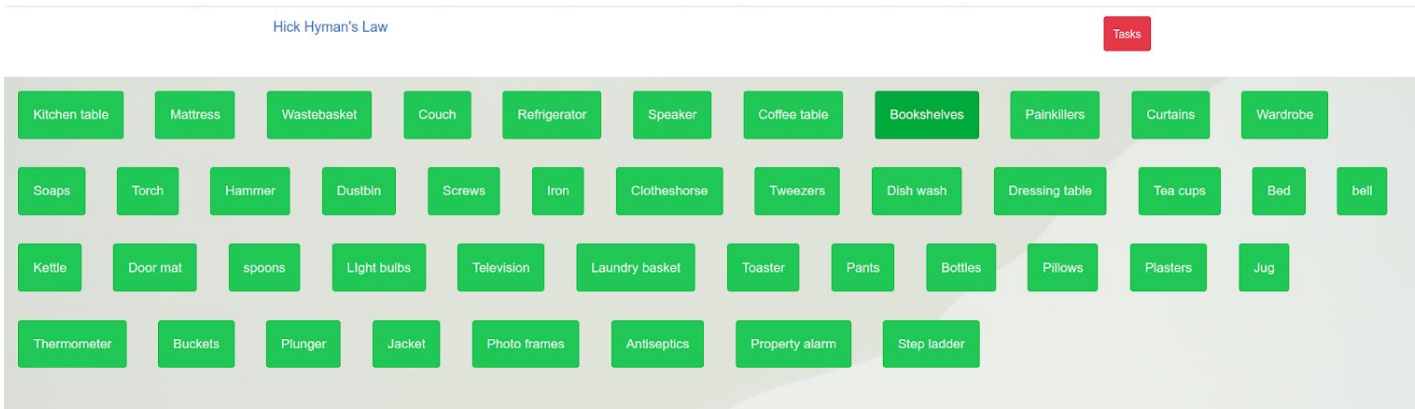
First design(index.html):

Below is the basic design implementation of the problem statement. On clicking the start button an alert is displayed that shows the list of 10 items for a user to select.

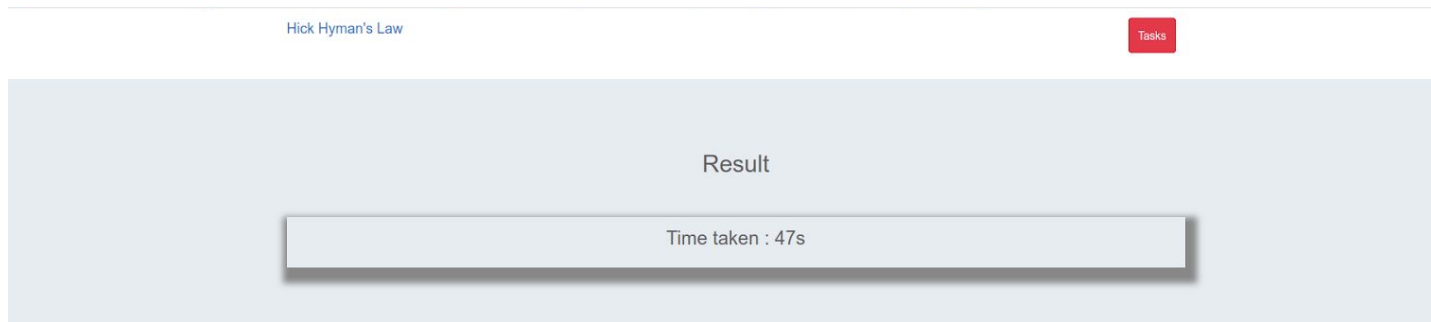




The alert is displayed which the user can read and do the tasks.



After clicking on ok in alert a window displays all the element the mall offers for a household and the user needs to select all the 10 items and his time is notes.



Time is shown in the result screen.

Second design(index1.html):

Below is the basic design implementation of the problem statement. On clicking the start button an alert is displayed that shows the list of 10 items for a user to select.

The screenshot shows a web browser displaying a page titled "Hick Hyman's Law". The page has two main sections: "Problem Statement" and "Procedure".

Problem Statement: You have to design a menu structure for ordering house-hold items from a mall directly to your home through a mobile phone interface. Categorize the items in whatever way you wish into menus and submenus. Design 3 alternative screens or menus from listed categories, making use of Hicks Law. Compare your designs by actually measuring the reaction time for various test cases and also using the Hick's Law expression.

Procedure:

1. You will see a red box with a button below.
2. An instruction will appear .
3. You have to take action as per the instruction.
4. There are total 10 instructions to execute sequentially.
5. When you are done, your reaction times that were logged will be displayed.

A red "Start" button is located below the procedure list.

An alert box is displayed over the "Problem Statement" section. The alert box contains the following text:

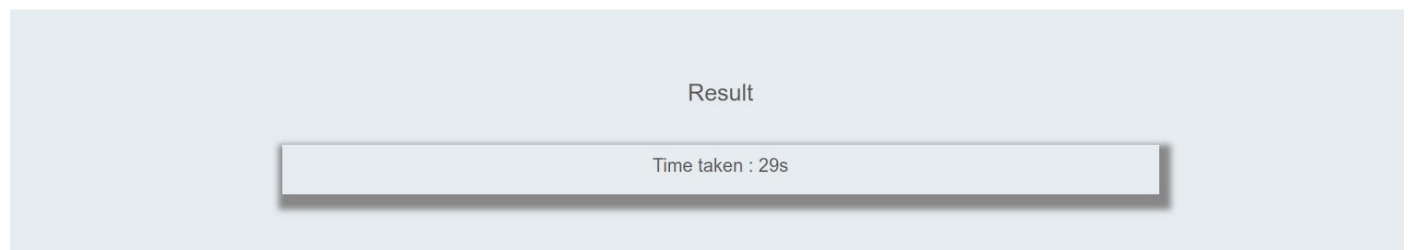
127.0.0.1:5500 says
Follow the list and click on the following items
1)Dish wash
2)Jacket
3)Soaps
4)Pants
5)Sofa
6)Television
7)Curtains

The alert box has an "OK" button.

The alert is displayed which the user can read and do the tasks.



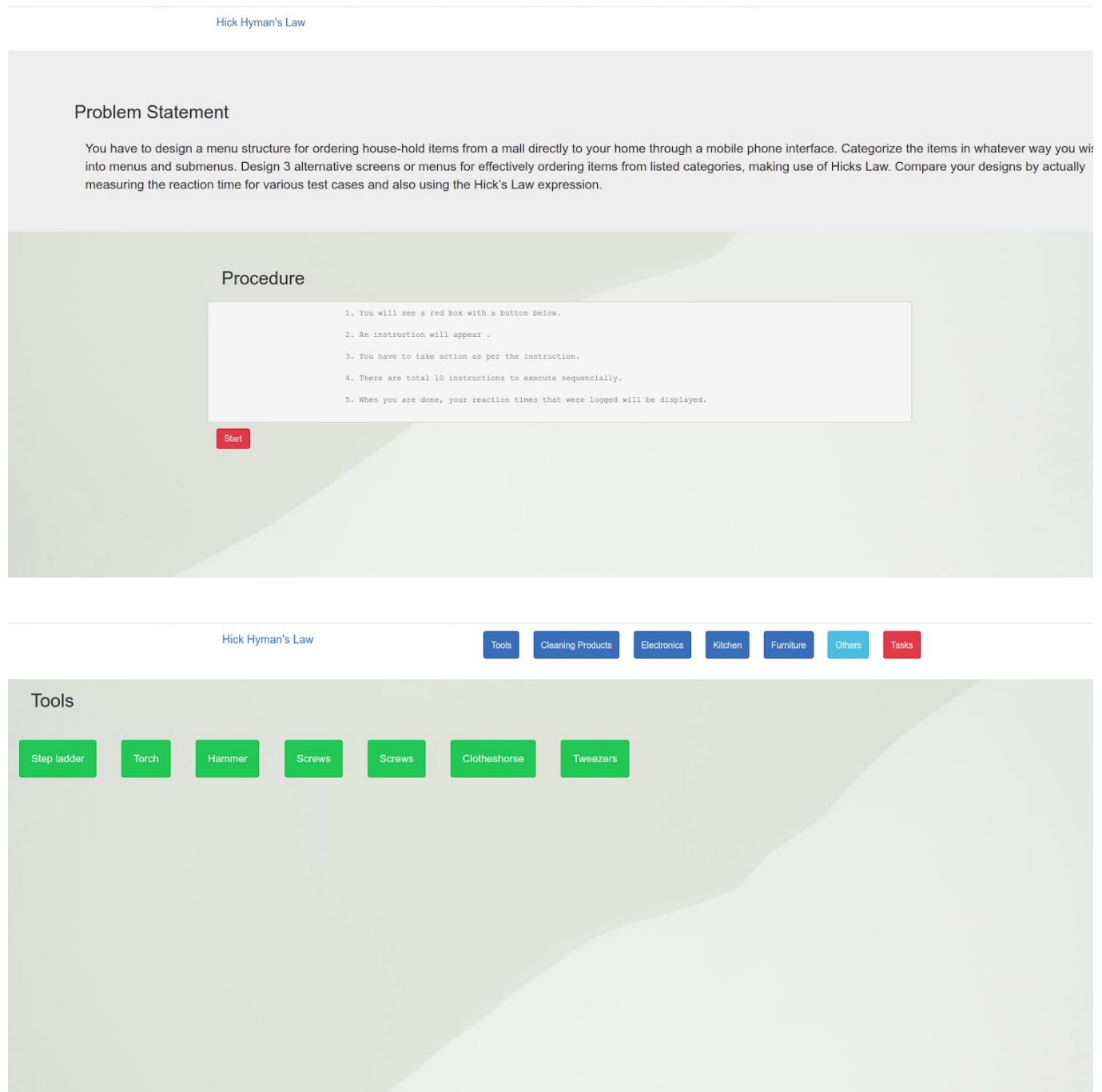
After clicking on ok in alert a window displays all the elements the mall offers for a household and the user needs to select all the 10 items and his time is noted. Here to improve the reaction time the menu is classified into groups into which items belong to .



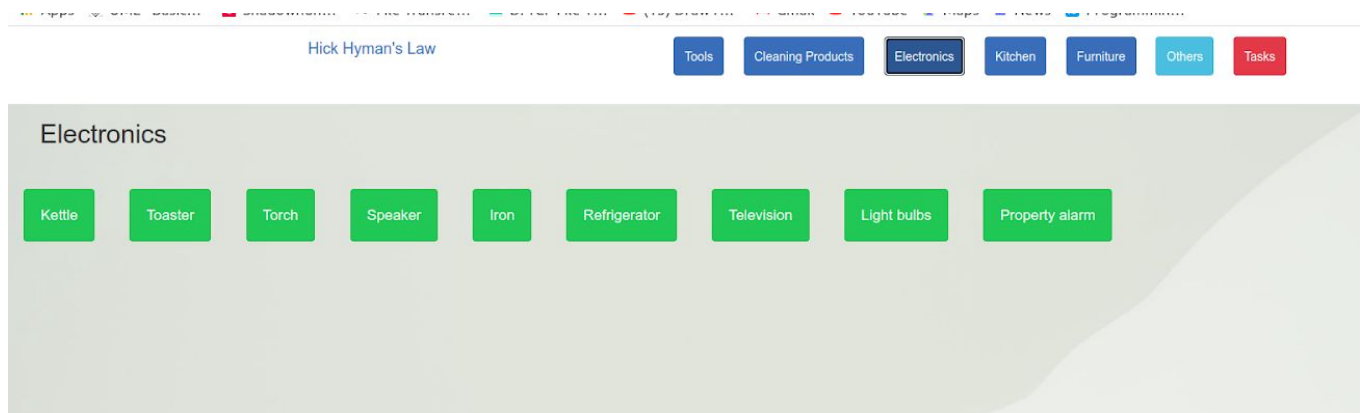
Here we can actually see good improvement in reaction time just by changing a few things.

Third design(index2.html):

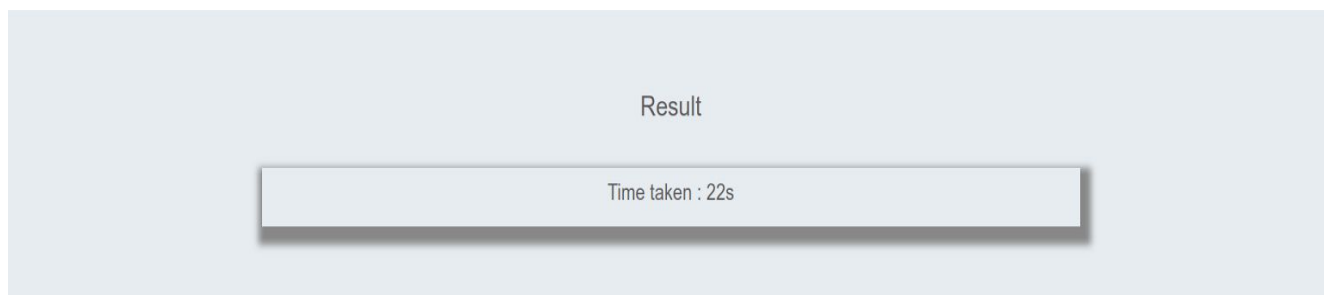
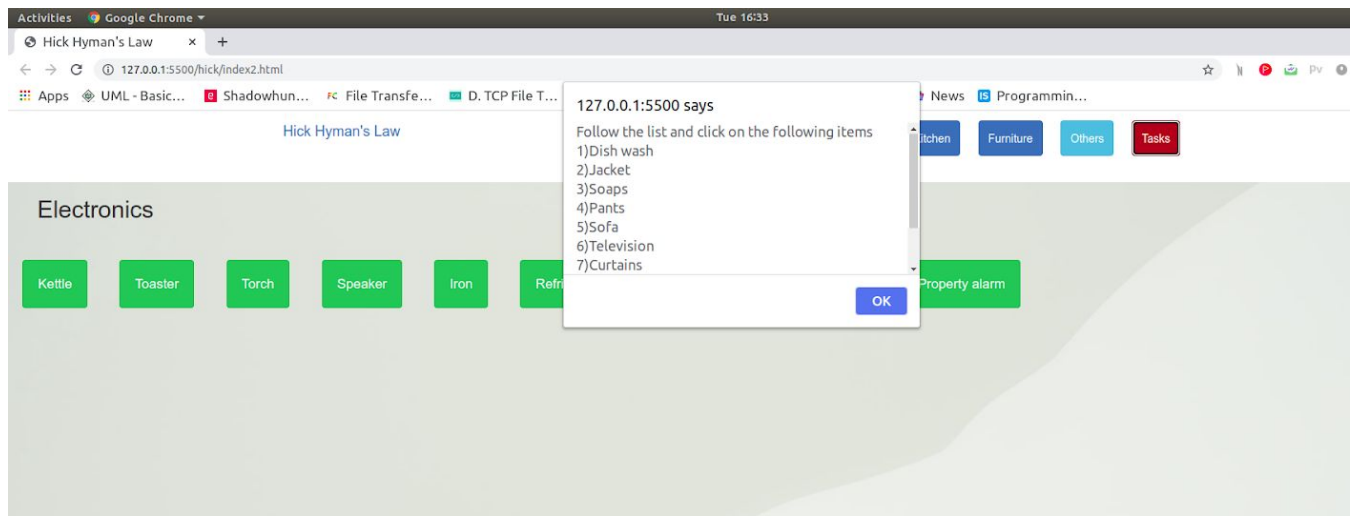
Below is the basic design implementation of the problem statement. On clicking the start button an alert is displayed that shows the list of 10 items for a user to select.



After clicking on ok in alert a window displays all the elements the mall offers for a household and the user needs to select all the 10 items and his time is noted. Here to improve the reaction time the menu is classified into more sections with navbar to choose quickly.



Also we can go back to see tasks which are in different colors to spot, also for miscellaneous products we have a different shade to make look up easy.



Once the user is comfortable with the above interface ,reaction time improves .

Analysis:

- In the first UI it was difficult for the user to find items as the menu was cluttered and there was no separation of items, hence it took a lot of time for the user to find all the elements.

- In the second UI it was a lot easier for the user to find the items as there were categories the user could look into where the probability of finding items will be highest.
- In the third UI there were definite links that took the user to exclusive items belonging to a category and also there were more sections hence easier for the user to narrow down his item.

The above experiment is based on Hick Hyman's Law of designing user interfaces.

Hick's Law is applicable to menu design. It helps in designing menu hierarchy and depth. When we have too many choices we need to cognitively categorize items to reduce the time taken to select an item at any stage. The logarithmic function of Hick's Law decides the depth of hierarchy of the menu tree.

Code: https://github.com/shonali-ks/HCI_lab/tree/main/assignment-3