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**HCI Group 33 – Buynary eCommerce Site**

From our previous section of this assignment (the requirements analysis) we sent out surveys and questionairres to people. In these, we looked at how many users purchased online and the frequency of their purchases. We also asked about how users felt about the current ecommerce sites such as Amazon and elara.ie.

We found that some users would get confused during the payment process as there was a lot on a single page. We also found that pages were not visually appealing and there were no explicit categories of items, thus making a specific type of item hard to find.

In our initial mockups we aimed to tackle these problems. We came up with UI mockups that if implemented would simplify the checkout process, gave explicit item categories and the site would be easy to navigate. The mock ups were also simplistic thus giving rise to easy site navigation.

We sent these mockups to users for feedback. With the feedback we received, we refined the mockups. The comments we received back related to colour schemes, and some layout adjustments that could be made and where these improvements could be made.

Users found that the checkout and login pages were simple, minimalistic and easy to understand, even just from the mockups. They found the content that was displayed on the homepage (Top deals and recommended items) were easy to follow and were not too cluttered.

We updated these mockups by changing the color schemes and making minor adjustments to page layouts.

We then asked the users who replied if they felt the improvements were good and how the felt about the mockups again. All users now seemed satisfied.

We then took these mockups and translated them into code. This was just some simple HTML and CSS. We used a CSS framework called SemanticUI. We made minor adjustments to the CSS files that came with this framework to better suit our needs. We also created our own stylesheet to deal with situations that were unique to us.

With a now basic implementation of our UI we let users interact with what we had with some dummy data in place. We asked users to carry out scenarios. These would be things like try to log in. Try to sign up, search, navigate and checkout.

Users found these scenarios really simple to follow and had no issues in carrying them out.

They were impressed with the layouts and felt the color schemes were good.

We went with “yellow” which was actually slightly orange. It worked well against white and was visually appealing. We also looked into how this would affect users who are colour blind. We found that people with both red and green deficiencies live in a world of murky greens where blues and yellows stand out. We made sure not to mix the yellow-orange colour with any greens or red as these can be confused.

The navigation bar stayed consistent throughout the site and we all worked together to build it.

Jake worked on the sign up, register and payment pages. It may seem like alot but each page is minimalistic and easy to implement and was not an overly large workload. The pages followed the UI mockups and user feedback and all members of the group and users were satisfied.

One major factor of our website has to be the homepage as it is the users first initial interaction on with the website and from previous studies it has been shown that users tend to decide whether a website is good or not in the first three seconds therefore it was essential that we could as a group convey the key features of the site through vibrant colours and clean layout.

During the implementation of our landing page we focused primarily on accessibility, specifically aiming to allow the user to navigate anywhere on the site with as few clicks as possible. To achieve this we decided the use of a static side navigation menu would be perfect. By doing this we were able to help the user navigate freely and with ease to different sections of the site increasing user retainability.

Unlike other sites we aimed to reduce the amount of information thrown at the user as it can be quite intimidating to users when a cluster of information is thrown at them. We found that having rows consisting of three products was very suitable as it drew more attention to the product itself whilst allowing the user to browse freely without being bombarded.

Primarily we aimed for accessibility, as we stated before colour blindness was a topic we took very seriously, therefore accessibility for other users was one of our top priorities aswell. With semantic ui, eventhough it had very pleasing aesthetics it tended to use many nested classes to achieve this therefore to be on the safe side we ensured to make heavy use of the “aria-label” tag in html. By doing so we could assist screen reader users directly and try to ensure that everything is clear for them as they traverse the site.

Much like the sites original simplisitc and minimilistic approach we opted to try do the same for screen reader users. Rather than throw a heap of information at them we opted for short and concise descriptions to try convey this to screen reader users.

Another key feature that we implemented that we deemed mandatory especially on a eCommerce website was the use of pagination. As we strived to keep user retainability and ensure that finding a certain product would be as easy as possible for the user the last thing we wanted was a user stuck in an infinite loop of scrolling trying to find a product that they saw previously.

As we strove to allow the user to access any part of the site in as few clicks as possible the side navigation menu would be heavily used, so we had to make it as straightforward as possible. We opted for a simple header and sub header styled menu so the user at a glance can check if the category and sub category they were interested was there.

Once they found a category/sub category the user would be brought to a page very similar to the home page but oriented around a certain type of product. Since this page is a slight spin off of the home page when the user arrives they will see the familiarity of the navigation bar and side bar of categories along with the similarly three products per row and pagination and immediatly be able to transition over as if it were nothing. As these pages hang onto the side bar and nav bar the idea that a user can navigate anywhere on the site in as few clicks possible still holds.

Connor worked on the home/landing page, the tablet category page and the phone category pages. The pages layout and the design were heavily influenced on user feed back and were initially implemented based of the mockups. When displaying these pages to potential users we used dummy products i.e same “product card” repeatedly so the user can get a feel for what the site feels like rather than focus on the products themself. Users initially had some critiques on the side navigation bar but after some reworking they were very pleased. These pages would set the standard for any other pages that would involve browsing the site.

A page which the user typically does not want to see, but is much needed in any website is the 404 page. Creating this page was less of a design intensive task, and more about linking pages correctly. The UI mockup for this one was simple, we needed to convey the message that the page the user was looking for was not found. This entailed the signature “404 page not found!” trope, and a simple graphic to compliment it. The colour choice for the graphic was blue and yellow – colours that are easy to interpret for the majority of users, and especially people who are red-green colour blind, these colours are known to pop in their eyes.

The more important aspect of this page was ensuring that invalid links would route to this page, and that the user could return to their previous page or to the index with ease. Before implementing this page, what happened previously was any link that was not in use linked to the local root directory. This was obviously a bug, but we would be lying if we said it didn’t startle us my first time we encountered it. This lead to the conclusion that all links should be linked to 404.html by default to avoid this issue. The 404 page lacks the side navigation bar and opts to use only the top navigation bar, this design choice hinged on simplicity and ease of use. There was no use in overcrowding a page that ultimately the user wanted to avoid if at all possible.

We know that we could not cover every scenario in existence, so we had to think of a way to cover most of our bases. The more time we were to spend on evaluating scenarios, we were bound to get diminishing returns, so due to time constraints we opted for a contact us page. This page was made readily accessible from the top navigation bar, ensuring it was reachable independent from what page the user is currently viewing. This page had a list of contacts on it, with profiles, emails, and phone numbers to accompany them. This page was designed to mimic a real world scenario. Thus, there are three contacts to speak of. Primarily, the system administrator; this contact was placed first as if the user had any issues with the usability of that website itself, they could contact the system administrator. We felt that this would cover any bases that we did not manage to cover ourselves, and once the issue is brought to our attention we could hotfix the code that was causing issue thus allowing us to continue to improve the website after deployment.

Apart from technical issues, users could also run into issues with products on the website; we decided to add contact for customer support and sales because of this. These seemed to cover both aspects of issues that users may encounter with products. Customer support would deal with any issues that the user would have pertaining to deliveries and previous orders, covering the time from dispatch to arrival. After this, the sales department would take over and deal with issues to do with the products themselves. We believed that this approach fitted in with the project as human computer interaction does not stop once the purchase has been made. If the user were to have any issues they would still use the website to try to amend the situation. We believed that simplifying this experience for the user was integral to ensuring accessibility at all points of their journey through the website.

An “About Us” page was also created. We saw it as important to inform the user about who they were purchasing from and who they were dealing with. This was a minimalist page. It contained a snapshot of the company and a brief description, it existed simply to add some personality to the website. It was accessible through the top navigation bar, similar to the contact page.

Michael worked on the 404 page, the about us page, and the contact page. The design for these was influenced by our user feedback on our design mockups, and also leaned on the design of the rest of the website. The side navigation bar was exempt from these pages as it did not fit into the desing of them. The pages would have been to cluttered, and the feedback from user studies all agreed that it was not necessary. To replace this, it was ensured that navigation to other pages was easy for the user, letting them use features such as the side navigation bar again.

We observed that most users use the search bar to find products so we deemed search page to be one of the most important pages of our site. From the questionnaires, we learned that on competing platforms users found that this page contained too much information which wasn't helping achieve their goal of finding the product.

We agreed that this page must be simple and intuitive to use and provide enough information about the products while not cluttering up the whole page. We settled on a design that used 1 vertical column to display the products, with each product having its own image, title, short description, price, delivery availability and a button to view the product.

We made the "view product" button green since the green colour stands for reliability, balance and safety and that's what we want our users to feel when browsing our site, also the green colour stands out on the page which will make the button easy to notice.

We wanted to have consistency between pages and we achieved it by having the product page be an expansion of the single product found from the search. The way the information is displayed on this page follows a similar design structure from the search page where the image for the product would be on the left with information about it displayed on the right. Here we expand on by adding a long description of the product under that followed by review section at the bottom.

The review section seemed to be of high importance since this is where users will be able to leave feedback about the item and in turn help, potential customers decide if they want to make the purchase. We implemented the ability to reply to reviews and in turn have a discussion about the product. Features like this are also likely to increase user engagement with the site.

Product and search page were implemented and designed by Martynas. The designs were influenced by user feedback and based on design mockups, and all members of the group and users were satisfied.

List of work done:

Jake Grogan:

* basket.html
* checkout.html
* login.html
* receipt.html
* review.html
* register.html
* payment.html

(Looks like a lot but they’re relatively small and simple pages)

Connor Mulready:

* index.html
* phonePage.html
* tabletPage.html

(index.html acted as a template for all relative product pages)

Martynas Urbanavicius:

* search.html
* product.html

Michael Collins:

* 404
* About us
* Contact Us