

U15 Assignment

Produced Website

- The website I produced for this assignment can be found [here](#).

Some Notes

- The site is (more or less) responsive, resizing content to fit the given screen. There are a few issues with this, but it works for the most part
- No Bootstrap was used
- Elements such as the hamburger, slideshow and buttons utilize JavaScript, and JQuery is implemented also.

Site 1 - PiHut

Purpose of the Website

The purpose of the site is to bring people in who are interested in owning a Raspberry Pi. It is a rather niche website, offering a similar service to Amazon or eBay. However, instead of offering a wide range of items, the company only sells one specific type of item. This means that the site is only generating traffic from people that have an interest in the Raspberry Pi - be that people already familiar, or people looking to get into the device. Because of this niche, and therefore, limited site traffic, the company can have a more detailed view of the site visitors, and what they buy - thus meaning they have a more accurate inkling of the items to stock, and how many to stock at any given time. This creates the advantage of the company not having a significant amount of unsold stock; reducing the amount of money spent on the acquiring and storage of unsold goods.

Principles of Web Design

Style

The site uses a simple and effective design, with a reasonable amount of white space - which improves site navigation, and decreases clutter - as well as a complementary colour scheme of white, green and purple. Using a Sans Serif font helps the website appear modern and 'fresh', and the simplistic colour scheme also helps to improve site usability - especially for those who are colour blind or have a visual impairment of some description.

The landing page of the website makes fervent use of images to advertise the product. The images used are of high quality and are significantly larger than the text they accompany - useful for people who are unfamiliar with what the product is.

The landing page is split into multiple different sections, advertising different types of products - including new RaspberryPi products and new Arduino products. Each section has its own specific colour to differentiate itself and make it easier for the view to pick out.

Screenshot

Screenshot showing the different colours used by the site to split the types of products into different sections and make them more visible, also demonstrating the use of images in the site:

See screenshot 'PiHut_Colour_Split'

Navigation

The navigation on the website is good, with the header working as the navigation section of the site. There are a group of drop down lists that contain buttons which are links to more relevant and specific parts of the site for that specific section. A search bar is also included if the user does not know what it is they are looking for specifically, or if they don't know what section it will be under. As is common with most sites, the logo takes the visitor back to the landing page.

Screenshot

Screenshot showing the method for navigation - including the buttons to access the drop down links:

See screenshot 'PiHut_Navigation'

Purpose

The purpose of PiHut as a whole is obvious - to sell Raspberry Pis and Raspberry Pi related accessories. As a result, the site fulfils that purpose excellently and every page on the site isn't there without a reason. There are tutorials and blogs that provide help and information for new and novice users, as well as pages for support and returns.

Screenshot

Simplicity

PiHut uses a Sans-Serif font with bold and non-bold variations. The bold variations are used in the headings, titles and categories in the drop down buttons. The site has a red, black and green colour scheme which does not get in the way (look obnoxious) and there is plenty of white space to make the site feel comfortable to navigate. Colours are negated mostly to the background colours for buttons, borders and non-button links. There are a few other colours used at various points, such as blue, but these are not all that important as they are few and far between.

Screenshot

Screenshot showing the fonts, colours and appropriate use of white space to give the site a simplistic layout:

See screenshot 'PiHut_Font_and_Whitespace'

Visual Hierarchy

There is a visual hierarchy of content across the pages on the site, wherein larger fonts/fonts that have been bolded indicate headings and other such content, and large images which double as buttons outweigh their corresponding text, as do the large buttons which allow you to choose options or add the item to your cart automatically without having to load another page.

Screenshot

Image demonstrating a portion of the visual hierarchy - the image is a button, the text is small, the reviews even smaller, and the buttons are large and obvious to help users use them:

See screenshot 'PiHut_Visual_Hierarchy'

Load Time

The site loads reasonably quickly, following the 3 seconds or less rule. Obviously, this depends on your connection speed - if you're connecting to the Internet with a dial-up modem, it is obviously going to take significantly longer. However, comparing the site to other sites on the same connection speed, the site loads acceptably quickly. This means that the site's developers have taken great care in ensuring that the images and other media used are well optimised and suited for hosting on the web.

Mobile Friendly / Responsive Design

The site has a reasonably responsive design interface, which takes a few seconds to take note of the window size it has to work with, and apply the necessary adjustments. Below there are 3 screenshots, taken on a 1920*1080 screen. The first screenshot utilizes the full screen window, the second utilizes half of the window - so you can have something else on the other half. The third screenshot makes the window smaller still, in order to test functionality with responsive design.

Comparing the second screenshot with the first one, the buttons underneath the search bar - Raspberry Pi, Maker Store etc, have been replaced by a 'hamburger' button next to the logo. When clicked on, this brings out all of the buttons on the full page, except it takes up the entire page to do so. Additionally, the currency selection and account login/creation buttons have been replaced with a traditional account icon - a generic person icon. The width of the search bar has also been reduced in order to stay in line with the available viewport.

The third screenshot keeps most of the features aforementioned in the second screenshot, but this time the search bar is completely gone, replaced with a generic search icon - the magnifying glass. Furthermore, whilst still present, the elements that mention super fast shipping, no quibble returns etc, have turned into a slideshow which change every 6 seconds. Pressing the search icon brings the search bar underneath the logo and icons. Whilst it is somewhat baffling as to why the site's developers did not just include this functionality as standard, without needing to press a button, it can be surmised that this was done to keep the header a consistent height - having this extra height eats into the ease of visibility for the rest of the site.

Screenshots

See screenshots 'PiHut_Landing_Page', 'PiHut_Half_Page' and 'PiHut_Mobile'.

Intended Audience/Audience Requirements

PiHut's intended audience is the people who either have an interest in computing, or want to learn more about the hobby - either out of self-interest or a required part of their daily routine; such as in their course at college. PiHut is approved to resell products - making them cheaper than the products are when they were new.

Overall, the suitability for the site is excellent for what the intended audience will want from it. The site offers a simplistic and easy to follow layout with clear navigation. Images of each product for sale also help the new audience members to see exactly what it is they are potentially buying.

The suitability for the audience, and the client are entwined as the site is there purely to sell as many products as it can. The client requires the site to be visually appealing, easy to navigate and secure - as does the audience. If the site was not any of these things, it is likely that the site would get very little custom. Being visually unappealing would make the site appear unprofessional, and 'lazy'. Having a site that is hard to navigate is equally as bad, as new customers (i.e ones who are not loyal to the company itself) will likely just type something to the effect of 'raspberry pi' and click on one of the first links that come up - they are not bothered where they get it from. Having a site that is not secure when it is there purely to sell goods is ridiculous. Customers expect that you keep their credentials safe, and if you don't, then it will be likely the owners will face some type of action against them. Therefore, because of all of these reasons, it is in the best interests of both the client and the audience to meet the same requirements.

Who Pays for It?/Client Requirements

Owned by Mann Enterprises Ltd, the main source of income for the site - and therefore, maintenance of the site, is the customers who order the products the company sells. PiHut, and in consequence, Mann Enterprises LTD, obviously make a reasonable profit on each item that they sell, and incur extra profit from other, non-business related charges such as delivery. According to similarweb.com, the site averages around 650'000 visitors each month, and makes around £7'500'000 to £12'000'000 per year.

Screenshots

See screenshots 'PiHut_Annual_Revenue' and 'PiHut_Visitors'

Strengths & Weaknesses

Strengths

PiHut is a simple site with an easily understandable layout - with no 'pointless' information displayed to the visitor, and the site automatically fits to the size of the window so that scrolling across the page is not necessary.

The site also has a very easy to understand and follow navigation system, splitting the site down into separate sections, which themselves are split down into separate sub-sections.

Weaknesses

Whilst the site is visually appealing, and uses complementary colours and a simplistic font, there are no options for different types of visual impairments. As aforementioned, the use of large images is a good thing - it helps the user to see what it is they might buy. However, this comes at a cost - the font size. The large images mean that the font size has to be decreased. As a result, people who are visually impaired may struggle to see the prices of the items - and there is no option to customise this.

Screenshot

See screenshot 'PiHut_Image_Font_Size'

Landing Page Screenshot

See screenshot 'PiHut_Landing_Page'

Screenshot Link

The screenshots can be found [here](#)

Site 2 - SourceForge

Purpose

The purpose of SourceForge for the owners is to help people manage their open source projects, as well as act as a hub to build on the open source projects that have already been uploaded. The site is a mostly collaborative effort from the creators of the source code to people improving it by fixing bugs or adding new features.

For the visitors of the site, the purpose is to be able to easily upload, obtain or get help with open source software. Most users will not have any interest in paying for subscription services for extra benefits - they know what they want, and if they cannot get it at SourceForge, they will go to another site, such as GitHub.

SourceForge is useful for anyone that is involved in the coding and computing sphere in any capacity - even the traditional home user and business owners.

At the top of the page are a list of buttons that take you to different parts of the site, such as open source game code. If you hover over a button such as open source software, that will create a drop down menu with different options, such as games, E-Commerce and BPM (Business Process Management.)

Principles of Web Design

Style

SourceForge's font is a Sans Serif design, which helps the site to appear modern. The vast majority of sites related to the computing industry use sans serif fonts. Serif fonts are more useful in the titles of mainly text sites - such as Wikipedia.

On the website, there is a lot of white space so that it does not feel cramped and daunting to navigate, especially for first time users. This gives the site a user friendly experience, and implies that they want to get as many people on board as they can, and will try their best to make the content appeal to anyone, even those that are colourblind.

Use of white space helps to improve the readability and display properties, especially for users who are visiting for the first time.

Screenshot

See screenshot 'Source_Forge_Simplicity'

Navigation

Site navigation is good, with buttons that take you to separate parts of the site where you can narrow down your search further.

Screenshot

See screenshot 'Source_Forge_Nav_Bar'

Purpose

The purpose of SourceForge is to provide open source projects to everyone - either for the sole purpose of using the software, or for people to add stuff to it. It is similar in this vein to other services such as GitHub, and allows developers to also host their content for others to give feedback without having to use the device the software was developed on. It fulfils the purpose well, being intuitive to use, and having dedicated buttons for help and support. Whilst GitHub is the much more popular service - being owned by everyone's favourite monopoly, Microsoft, SourceForge is much more user friendly in its execution of searching for stuff. You do not have to log in to download from the site, whereas you do on GitHub. Furthermore, on GitHub, the search bar is a small bar next to the logo in the header, but on SourceForge, it is in the sticky section of the header, in the middle of the homepage, and on the other pages on the site. Consequently, one of the primary purposes - to be easy to navigate and user friendly is met very well.

Screenshots

See screenshots 'Source_Forge_Search_Bar', 'Source_Forge_2_Search_Bars' and Github_Search_Bar'.

Simplicity

The site is simple, using the same Sans-Serif font throughout and a mostly white, black and orange colour scheme. Blue buttons are used for software, and green buttons are used for projects. Links put under categories are in blue - this includes the links to see reviews, also.

Screenshot

See screenshot 'Source_Forge_Landing_Page_Hierarchy'

Visual Hierarchy

There is a clear and apparent visual hierarchy in the site - especially on the homepage. Look at the last screenshot. Large titles followed by smaller font size paragraphs. Additionally, parts of the site are broken down into sub-segments. These sub-segments have a black bar with white text on the title, and the parts of the sub-segment below it. When you navigate out of the main page, there is a large title that tells you where you are, and a list of projects. The projects have their name in blue, their tagline in a slightly smaller orange, and their description in a smaller black.

Screenshots

See screenshots 'Source_Forge_Other_Page_Hierarchy' and 'Source_Forge_Landing_Page_Hierarchy'

Load Time

The site is well optimised, and therefore, loads reasonably swiftly. There are a lot of images used across the site, however, these are easily optimized as they are small and do not take up most of the pages of the site. Again, load speed depends on your internet connection.

Mobile Friendly / Responsive Layout

The site has a responsive layout, changing its content to fit the viewport it is assigned. This section follows the exact same format as the PiHut one did.

Comparing the second screenshot to the first screenshot, we can see that the orange sticky header has been replaced with a 'hamburger' bar on the far right of the page - and the buttons for help, create etc have gone into that hamburger. Additionally, the paragraphs with the headings under the search bar have stacked where appropriate to avoid the use of a side scroll bar - something most users would find annoying if they were presented with it.

The third screenshot is largely unchanged compared to the second one, aside from the fact that each item is now stacked on top of each other. There is also no coding interface in the background of the black section of the screenshot. This is likely done as it would be harder for the developer to fit this into a smaller interface and make it look appealing to the user.

Screenshots

See screenshots 'Source_Forge_Landing_Page', 'Source_Forge_Half_Page' and 'Source_Forge_Mobile'.

Intended Audience/Audience Requirements

SourceForge's intended audience is anyone interested in developing, or uploading open source projects, and want easy access to projects that help them get started, or are looking to improve certain projects hosted on the site.

The main requirement of the site for the audience is to be able to obtain and browse open source projects easily and for free.

Who Pays for it?/Client Requirements

SourceForge is owned by the company DHI Group Inc and Slashdot Media, who make money mostly from pop-up advertisements and any donations that come from its users. According to similarweb.com, the site has an annual revenue of between £800'000 to £4'000'000 roughly.

The main requirement of the site for the client is to provide an easily accessible hosting platform for open source projects.

Screenshot

See screenshot 'Source_Forge_Similar_Web'.

Strengths & Weaknesses

Strengths

SourceForge's main strength is its ease of use, with excellent navigation to get around the site. Because of this excellent navigation, the site is popular, being able to boast that it has over 15'000'000 downloads and over 4'000 commits in a single week.

Screenshot

See screenshot 'Source_Forge_Landing_Downloads'

Weaknesses

The site is a hosting platform for open source software, making it highly likely that someone will upload a damaging and malicious piece of software to the service. Obviously, SourceForge will do their best to ensure this doesn't happen, but malicious users will always find a way around any security measures if they are determined enough.

Landing Page Screenshot

See screenshot 'Sorce_Forge_Landing_Page'

Screenshot Link

The screenshots can be found [here](#)

Comparison

Both sites meet their requirements very well, and take into careful consideration the importance of the principles of web design. SourceForge's black, orange and white colour scheme and PiHut's purple, white, black and green colour scheme work well for the intended purpose and do not get in the way. It could be reasonably argued that SourceForge does a better job of optimising the site as the images are a lot smaller than on PiHut. However, I would say that this is a decision made by the developers of both sites - PiHut is designed to sell stuff, and SourceForge is designed for developers. The developers are not as interested in an image of the product they are going to use or develop for - it's free, and they'll find out when they get it. People about to purchase something want to know what it looks like before they buy it. Nobody is going to go and buy a £50'000 car without at least looking at an image of it. That would be vacuous.