

SOFTENG 351 Assignment 2 - Report

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Colour

The colour I was assigned for this assignment was '#343E40', which is shown in figure 1 below. This colour allows for a wide range of possible colour schemes and provides a good contrast to the majority of primary colours or colours in the lighter colour ranges. This contrast aids in the accessibility of all users in making the elements and text easy to see against the other colours, while also providing consideration to those with visual impairments that could affect them in visualising the colour design of websites.



Figure 1. Assigned colour (#343E40)

The other main colours that were used for elements are found in figure 2 below, and these colours were chosen with contrast in mind, but also for consideration of the overall minimalist style that I decided to design for. These colours were also chosen as they were not extremely vibrant or saturated. This keeps the page feeling toned down and minimalistic, while also providing a contrast to the dark grey and white used for the text and background and preventing an overall monochromatic scheme.

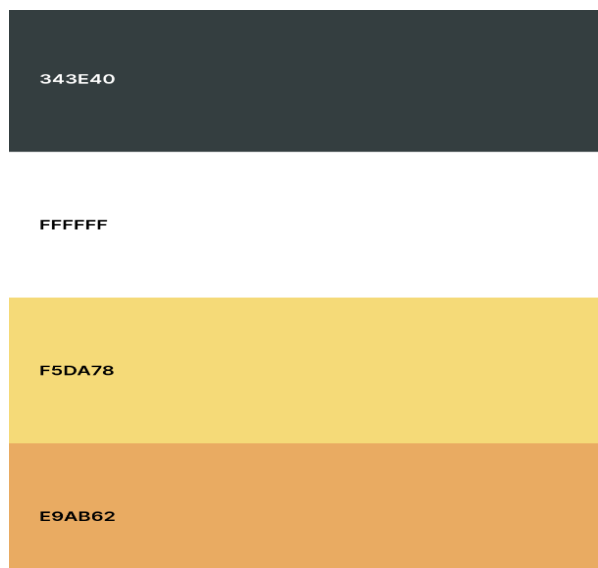


Figure 2. Primary colour scheme

The extra colours are used as highlights for various elements like buttons and divisions between sections. The main colour is used as either a background for the sections with light text/elements, or the color is used as an outline or font colour, placed on a white or lighter coloured element, examples of this is shown in the figures 3 & 4 below.

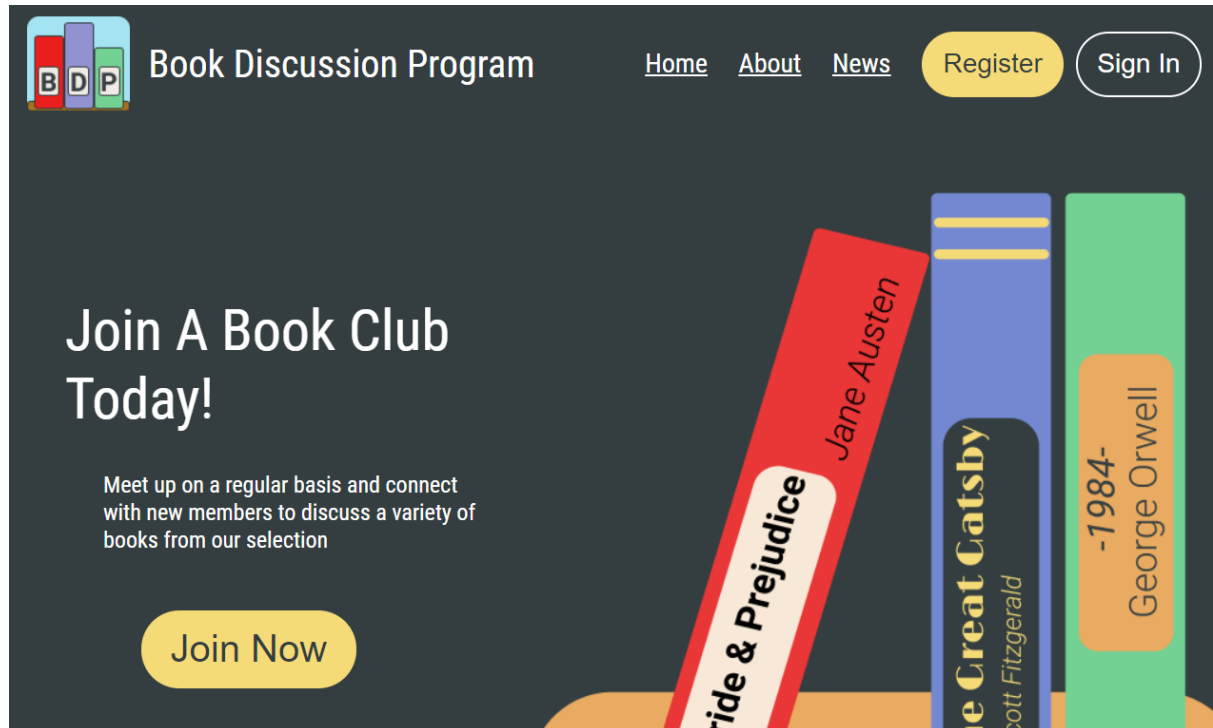


Figure 3. Example of primary colour used as background to contrast white font colour

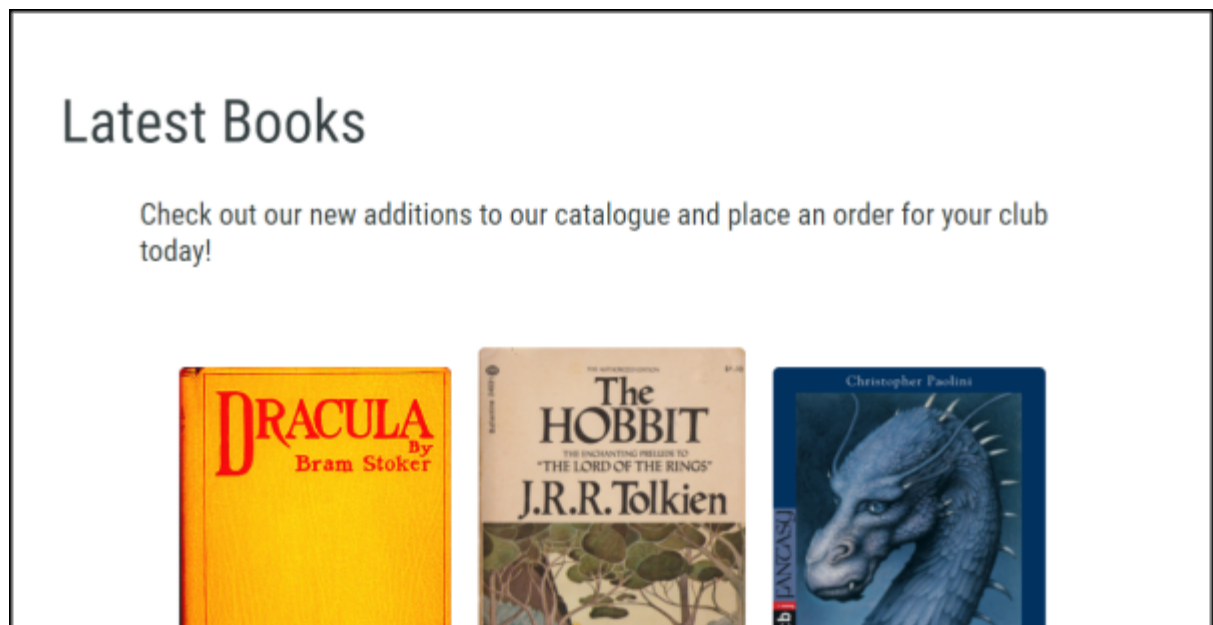


Figure 4. Example of primary colour used as font colour on a light background

Contrast

As mentioned in the previous section, colours were selected to help ensure that a reasonable contrast was enforced so as to not exclude any users and aid in view.

The contrast values for each font/background colour combination are seen in table 1 below, for sufficient contrast normal text should have a contrast of 4.5:1, and for sections of large text the contrast can be 3:1. As seen in the table all the contrasts are significantly higher than 4.5:1, and as such is sufficient for contrast.

Table 1 Contrast Values of fonts on background

Font colour	Background colour	Contrast Value
White (#ffffff)	Dark grey (#343E40)	10.99:1
Dark grey (#343E40)	White (#ffffff)	10.99:1
Dark grey((#343E40)	Yellow (F5DA78)	7.95:1

There were also a few sections of images that had varying font colours on background colours, but the text inside these images is not meant to be the focus of the page and their contrast values were not included in table 1 above. To calculate all the above font/background contrast values, I used <https://webaim.org/resources/contrastchecker/>

Layout

The layout of elements on the screen are heavily influenced by the visual design principle concepts of balance and emphasis. Sections of the home screen are balanced with large visually complex elements on one side of the screen, and the other side of the screen has fewer smaller elements like headings/text and buttons. The large singular image is balanced out by the multiple smaller elements on the other side, this allows for an overall equality in weight of the entire screen but also provides specific areas of focus for the user, mainly, the image and then the heading on the left side and the relevant text related to encouraging the user to sign up for a club. The example of this balance is shown in figure 5 below



Figure 5. Home page demonstrating visual principle of balance

Other sections of the website are balanced by providing an even distribution of elements across the screen that still have an equal weight, but are trying to convey a different area of focus to the user. An example of this is the 'Latest books' section, as seen below.

Latest Books

Check out our new additions to our catalogue and place an order for your club today!



Figure 6. Equal distribution of books

What figure 6 helps to show through the equal sized elements distributed across the screen is that the items are of equal importance and the user is encouraged to look across them. They are also placed on the light orange box in the background to reflect what books would look like in a bookstore, to provide a relevant comparison to the real world for the user.

The positioning of the books in the centre of the screen also plays on the principle of emphasis by designating the elements in the centre of the screen as the user we are naturally drawn to focus on them. I also designed the modal pop-up form with this principle of emphasis in mind as it is an important section for the user to pay attention to when they are filling out their details, the arrangement of fields is along the centre of the window to draw the user's focus. This can be seen in figure 9.

There are also other sections that also use the principles of balance/emphasis to draw the users attention and focus, the very end of the home page has the 'latest news' and 'socials' sections which both use either rows or columns along the axis of the centre of the screen to maintain the users focus on each section, these can both be seen in figure

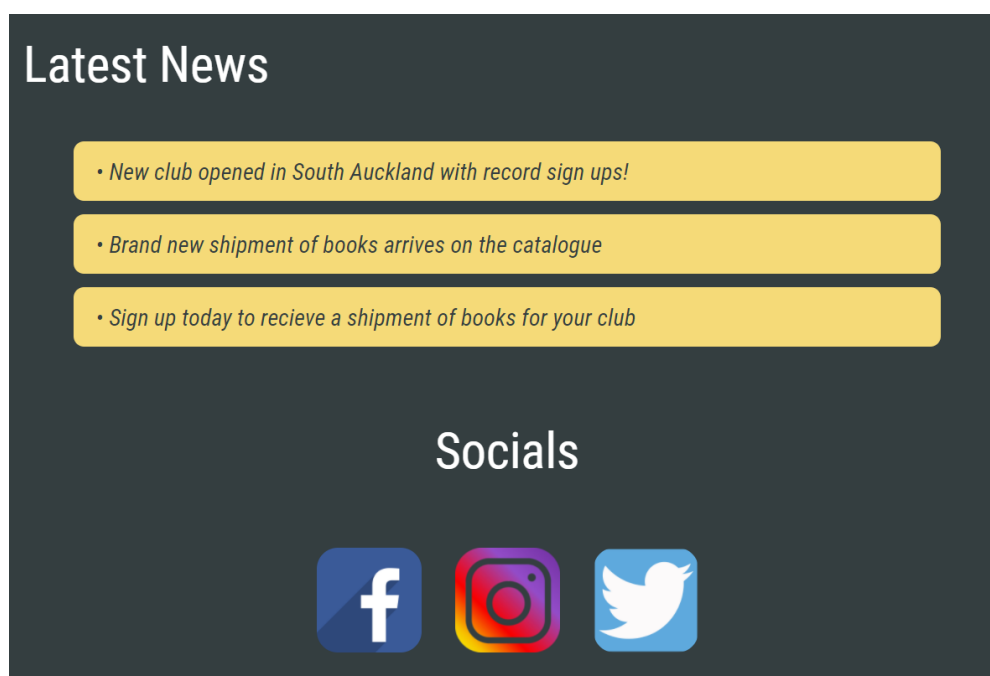


Figure 7. Centre alignment of news and socials section.

Consistency

To provide a consistent user experience to the user we use the visual design principle of unity to provide consistent styling and elements across the entire website so that it is all familiar and easy to navigate/use for the user. This is done by a consistent colour scheme which is discussed in the earlier 'Colour' section of the report (or seen in figure 2). We also use similar conventions to show interactable elements like buttons or links. For this website I used CSS hover to produce a change in buttons when the user hovers over them to help signify to the user that they are able to interact with this element, and this is consistent for all

buttons, the colours may differ between buttons, but the overall change to the buttons visual state when hovering is a consistent effect, as shown in figure 8 below.

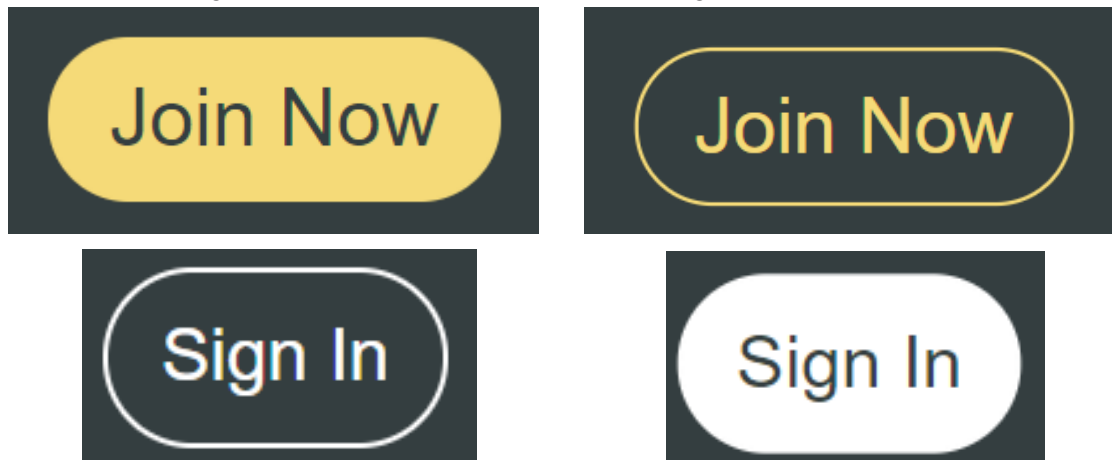


Figure 8. Showing change obvious visual state change when hovering over buttons

Other parts of the website that support unity and overall consistency, is the same font used for the entire website (Roboto Condensed) and a consistent font size for normal sized text sections, headers etc.

Finally the main plan for the visual design and layout was inspired by a minimalist style, and this style was kept in consideration for the designing of all elements and images used in the website. By planning the design with this one overarching thematic style it helped to promote unity and overall consistency in the design!

Gestalt Principles of Perception

Proximity, Similarity & Common Fate

These three principles of the Gestalt principles of perception can all be shown on parts of website where we have similarly grouped elements in rows or columns, examples of these can be shown in figures 6 & 7. Proximity is shown through having clear grouped elements together (3 books together or 3 rows of news items). We show similarity through the consistent styling of each of the elements in these sections, whether it be the same size/look of the book covers or each headline of the news titles, they are all similar and perceived to be that way. Finally the common fate principle is shown by how all the items are aligned and share the same beginning or ending. They are the same size and share the same fate and thus seen as related.

Area

The main image used in the home screen page as shown in figure 5, is seen as a figure or area of interest as opposed to a background due to the reduced sizing, especially when placed on the large dark grey background that is an extension of the navigation bar at the top of the page.

Symmetry

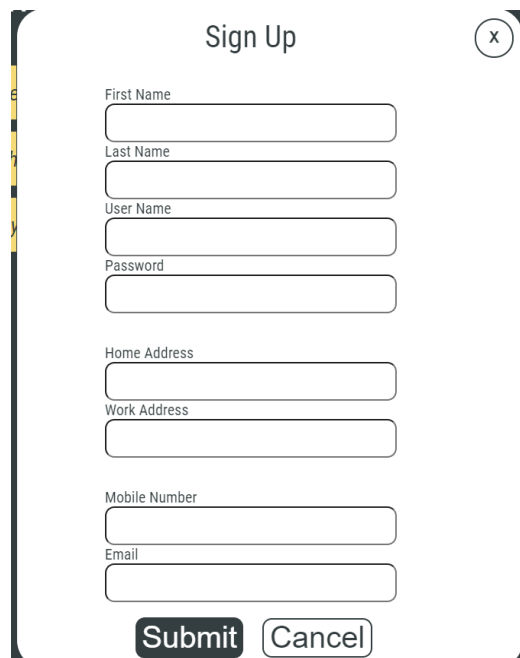
The books seen in figure 6, are aligned symmetrically across the screen which the eye appreciated more than the asymmetry of the large image seen. They seem like a complete set of books on a shelf and the user appreciates it as an entire figure on the screen as opposed to an incomplete part.

Prägnanz

This principle is slightly shown through the extremely simple 'shelves' that are beneath all the books in the image, by themselves they are simple rounded shapes of a different colour than the background. But with the addition of the simple books that are placed on top they give off the visual impression of a shelf that is holding the books, and if you look at the outline of the shape and focus on it, it starts to look less and less like a shelf, but a simple glance or viewing it does strongly resemble a shelf, and this minimalist imagining in the users mind is this principle in action.

Form

The form uses Gestalt principles to show the user areas of focus that they should be concerning themselves with, it also follows the same consistent style the rest of the website follows with a similar colour scheme and convention for buttons. The overall design is kept minimal to not distract the user as this is an important section of the user experience for the user to clearly fill out all the required fields. The colour scheme also follows the general colour scheme consistent with the rest of the website, except this section is kept in high contrast to aid in the user viewing and experience so they can focus and enter the correct information.



Sign Up

First Name

Last Name

User Name

Password

Home Address

Work Address

Mobile Number

Email

Submit Cancel

Figure 9. Modal window for registration to a book club.

Usability

For the user experience, the buttons are kept large and wide on the screen so that users can easily select them and are less likely to slip and miss or misclick buttons. We follow fitz law by keeping buttons wide with a sufficient width for easy usability. Other considerations for the user's experience is sections are kept sparse with not too much detail on the screen at any one point in time, this is to give the user time to look through all the information without overwhelming them and making the experience unpleasant. Each section is also clearly headed with the relevant title to provide the relevant information and context the user needs to achieve whatever goal they have when using the website.

References:

Placeholder logo (placeholder.png)

Designed by me in Figma

Main home page image of books (minimal-books.png)

Designed by me in Figma

Dracula book cover (dracula.png)

https://live.staticflickr.com/7100/7217190468_a7cb5f6a44.jpg

Hobbit book cover (hobbit.png)

https://live.staticflickr.com/2597/4014903394_b2f4f294b7_b.jpg

Eragon book cover (eragon.png)

https://upload.wikimedia.org/wikipedia/commons/8/83/Christopher_Paolini%2C_Eragon_1.jpg

Facebook logo (facebook.png)

https://cdn.pixabay.com/photo/2018/05/08/18/25/facebook-3383596_1280.png

Instagram logo (instagram.png)

<https://upload.wikimedia.org/wikipedia/commons/5/58/Instagram-Icon.png>

Twitter logo (twitter.png)

https://cdn.pixabay.com/photo/2016/05/01/23/20/twitter-bird-1366218_1280.png