Web and User Interface Design Assignment
Part 1 : Design

TU259

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15th April 2022

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Introduction

For this assignment I am, developing a personal portfolio website that I can use to upload the projects that I work on. These will include games, videos, assignments that I am proud of etc. As an extra challenge, I intend to set up a contact form that will allow visitors to my site to email me. While this is not wholly necessary, and the same functionality could be achieved by listing my email on the website, I think it would be a cool feature that would add a sense of professionalism to my website. The website will include 4 pages in total: Home, About Me, Portfolio, and Contact. The Home and Portfolio website are shown below, but for the About Me, it will follow the same basic structure as the portfolio page with sections for education, hobbies etc.

Before designing, I spent a few days researching and taking notes on the various theories and concepts listed in the brief. I did not use all the theories while designing, and mainly focused on the ones listed below.

For the initial design phase of the assignment I went and created an initial sketch using Figma. This helped identify the content of my website and gave a starting point from which to build upon. From this I went back to creating a wireframe, which significantly improved on my initial design. This wireframe was then used to create medium fidelity prototype.

Theories Utilised

Mental Models:

Mental models are toolsets we utilize to improve our decision making abilities, by simplifying the things we experience through sound, sight, and stimuli. They allow a person to organize information based on their relevance. While a person is able to expand their mental models over time through experience/training, this is not something we wish to impose on the user for our website. Jakob's Law, is the understanding that the user of our website will spend the majority of their time on other websites. As such, it makes sense to use common functionality and standards used on other websites rather than introducing novel concepts/interactions to the user. In the assignment, I aim to utilize common features used in many websites. I took inspiration from other portfolio websites, and included elements such as headers, drop-down navigation menus, and interactable buttons.
("Mental Models," n.d.) ("How to Use Mental Models in UX Design | Adobe XD Ideas," n.d.) ("denisechandler.com," n.d.)
("Emily Ridge • Galway based Freelance Web Designer & Developer," n.d.)

Gestalt Laws:

"The Gestalt principles help us understand how we process visual information.". There are many laws that we should be aware of, however in our website we mainly utilise the following.

- Similarity: Elements that share characteristics are more related than those that don't
- Proximity: Objects that are close to each other are more related than objects far apart.
- Common Region: Elements enclosed by the same region are viewed as being part of the same group. This tends to be used in conjunction with proximity, and also helps to satisfy Miller's Chunking.
- Figure Ground: When people instinctively perceive objects as either the focal point or background.

The prototype website design uses many of these, which are highlighted below in each example.
("The 7 Gestalt principles of design | Webflow Blog," n.d.)

Miller's Chunking:

Chunking is how information is reduced to segments which can then be grouped together again to form a meaningful whole. While humans can really only store 7 ± 2 items within their short-term memory, this limitation can be circumvented using chunking. The go-to example of this is how people group digits within phone numbers. (There are different standards used around the world.("National conventions for writing telephone numbers," 2022)). In Ireland, the standard is xxx yyy zzzz. Essentially, the 10 individual digits have been 'chunked' together into 3 separate chunks, facilitating recall. As mentioned previously, chunking is essentially the same concept as the Law of Common Region in Gestalt theory, and is often used alongside proximity. In the portfolio page, chunking is used to group and simplify the information presented to the user on screen.
("Chunking (psychology)," 2022)

60-30-10 Theory:

This is a general guideline for colour theory in user experience and user interface design. In it's simplest form, the guideline for the use of colour throughout a website using three primary colours is:

- 60% of the colour on the page should be a neutral/boring colour, typically white/off-white for light-themed websites, but can be black/grey for dark-themed websites.
- 30% should be the 'brand' colour. This primary colour can be used for important elements like text/boxes, but is not the most important element.
- 10% should be the 'call-to-action' colour. This should be used for interactable buttons/links or to highlight key info.

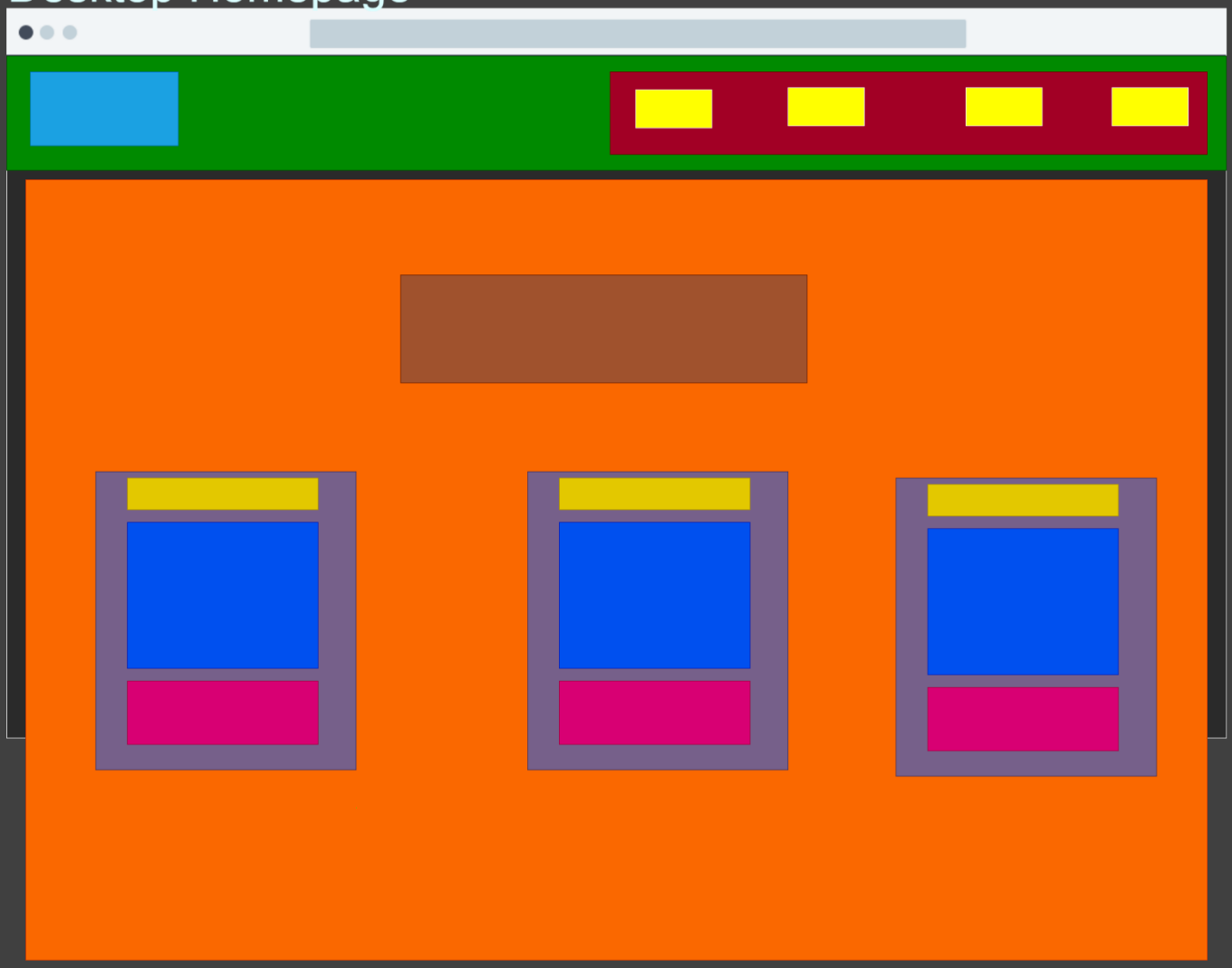
I decided to implement a very muted colour theme with dark grey and white acting as my 60 and 30 colours respectively, but use a strong accent colour of orange for interactable elements such as drop down menus.
(Jesse Showalter, 2022)

Behaviourist Learning Theory:

While many people use different forms of learning, which can be described through various learning theories, my website is designed based around concepts that can be generally categorised as behaviourist in nature. Behaviourism describe response-dependent learning strategies, where environmental stimulus is followed by an appropriate response. The core relationship in Behaviourist theory is the relationship between Stimuli and Response, known as the 'Association' between the two. In the applications of the assignment, the best way to support behaviourist learning is through the use of visual / tactile(where possible) feedback based on the users interactions with the website. Visual feedback could include animations and colour changes (which is assisted by the 60-30-10 rule mentioned previously) with interactable elements, where tactile feedback could include small vibration when the user clicks a button such as a drop down menu. What is key for behaviourist learning is the consistency of these feedback. If a feedback device can be implemented on one page but not on another, it should not be included whatsoever as it will be inconsistent and obfuscate user learning.
(Ertmer and Newby, 2018)

Wire Frame

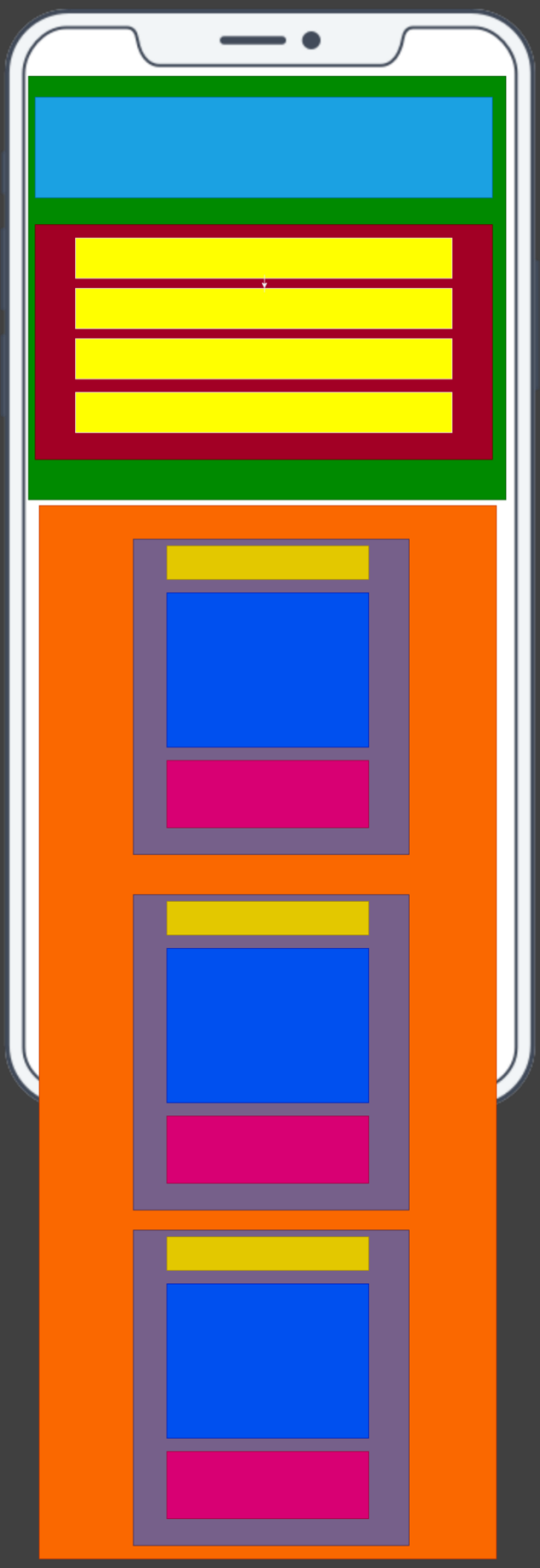
Desktop Homepage



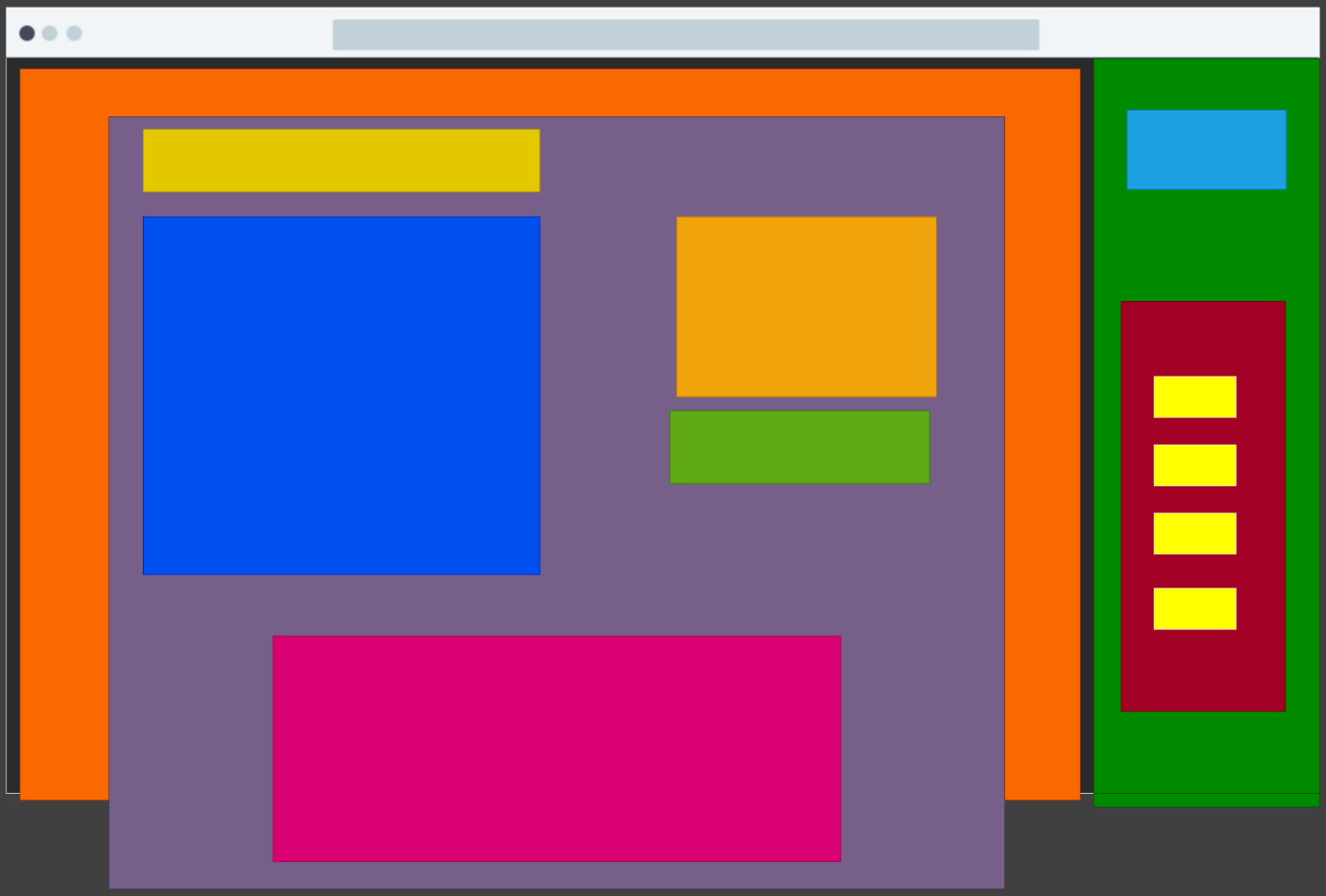
I used a coloured wireframe because it helped me visualize the problem better, apologies for the not conforming to strict grey-box wireframing.

Tablet Home

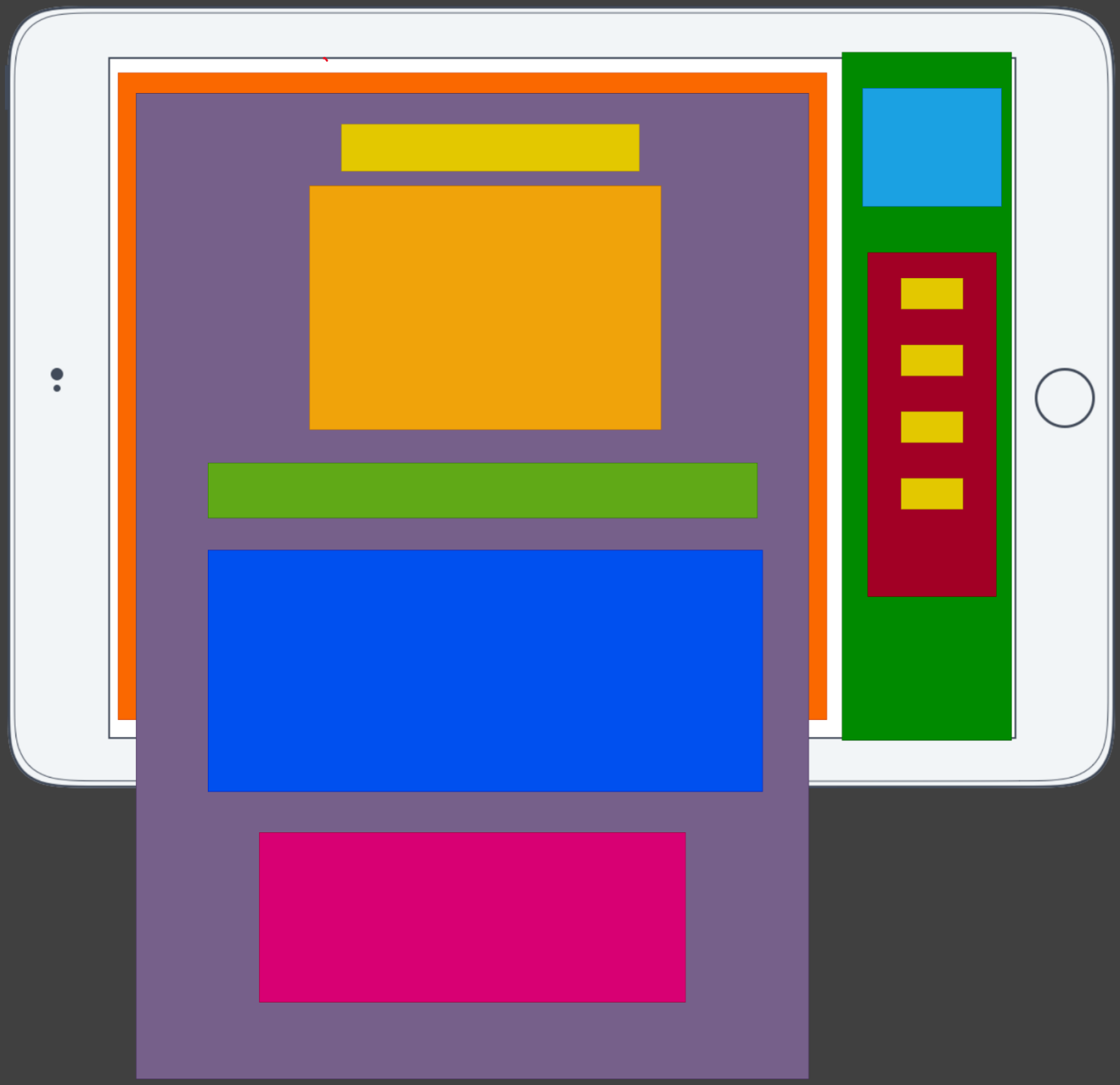
Mobile Home

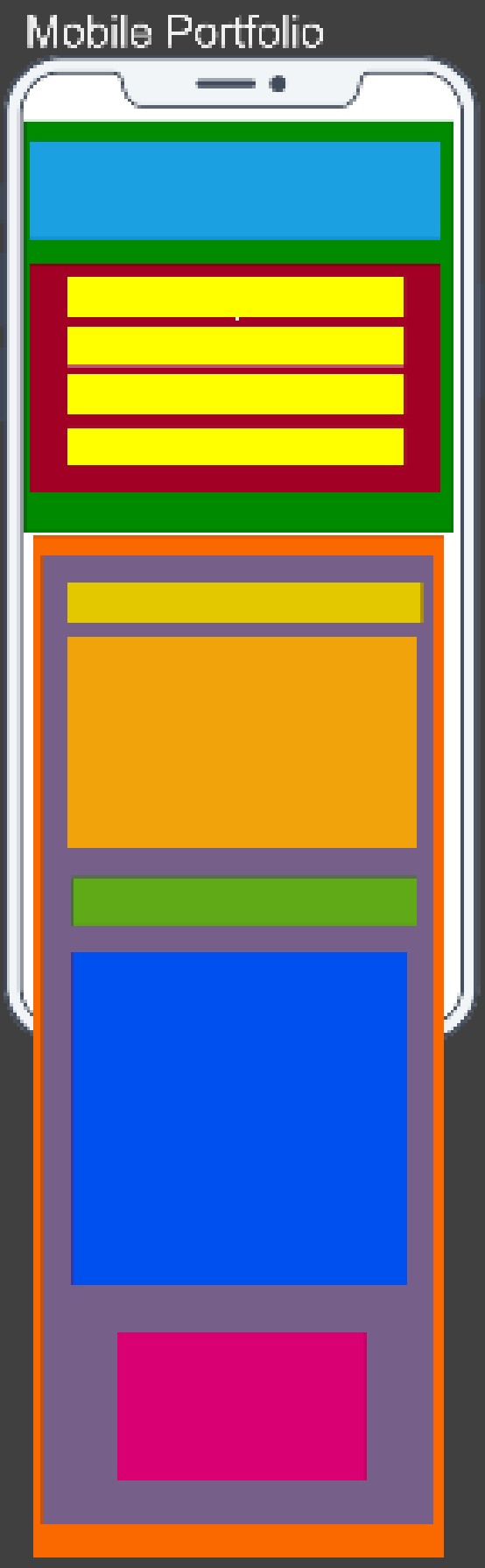


Desktop Portfolio

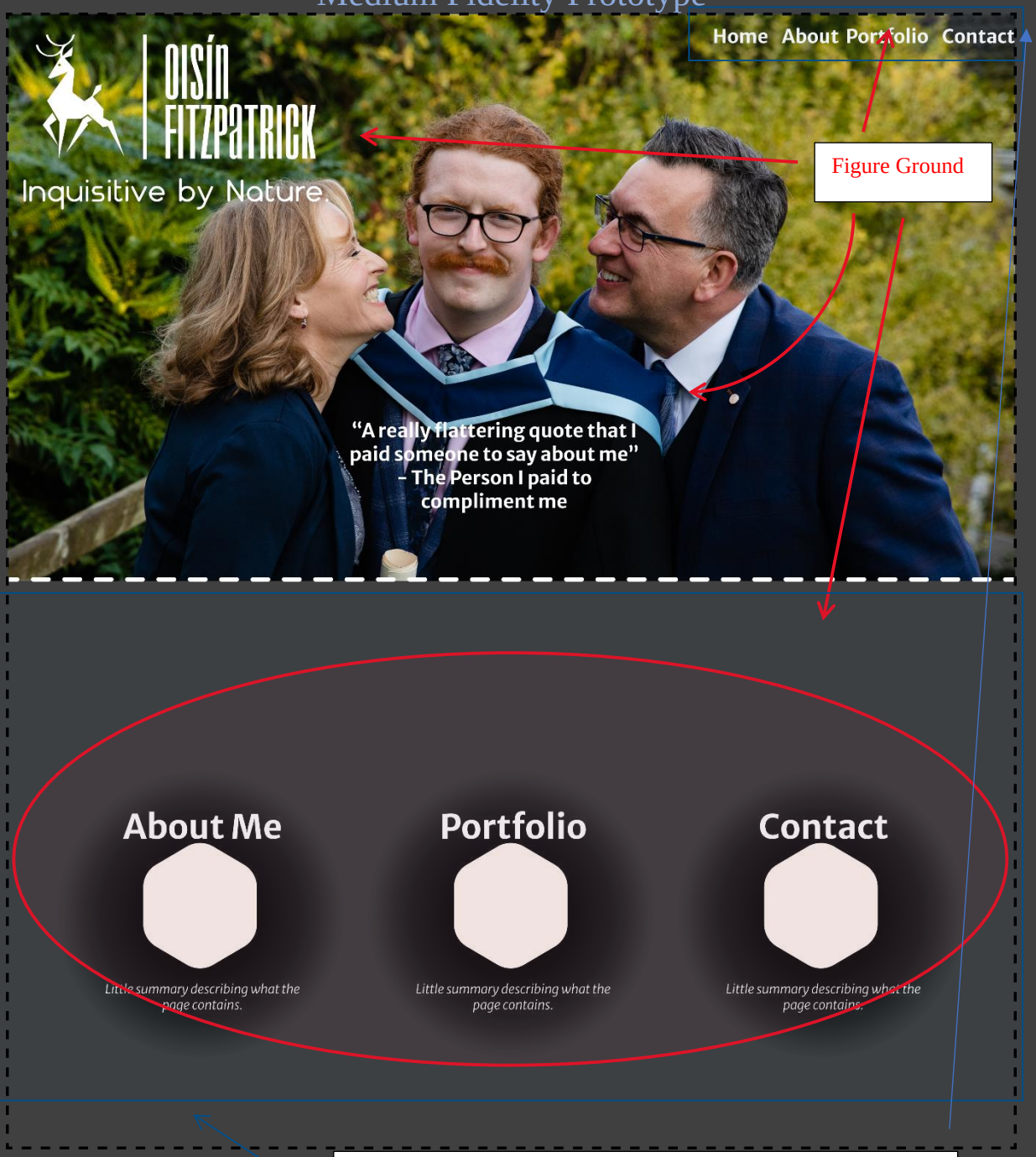


Tablet Portfolio

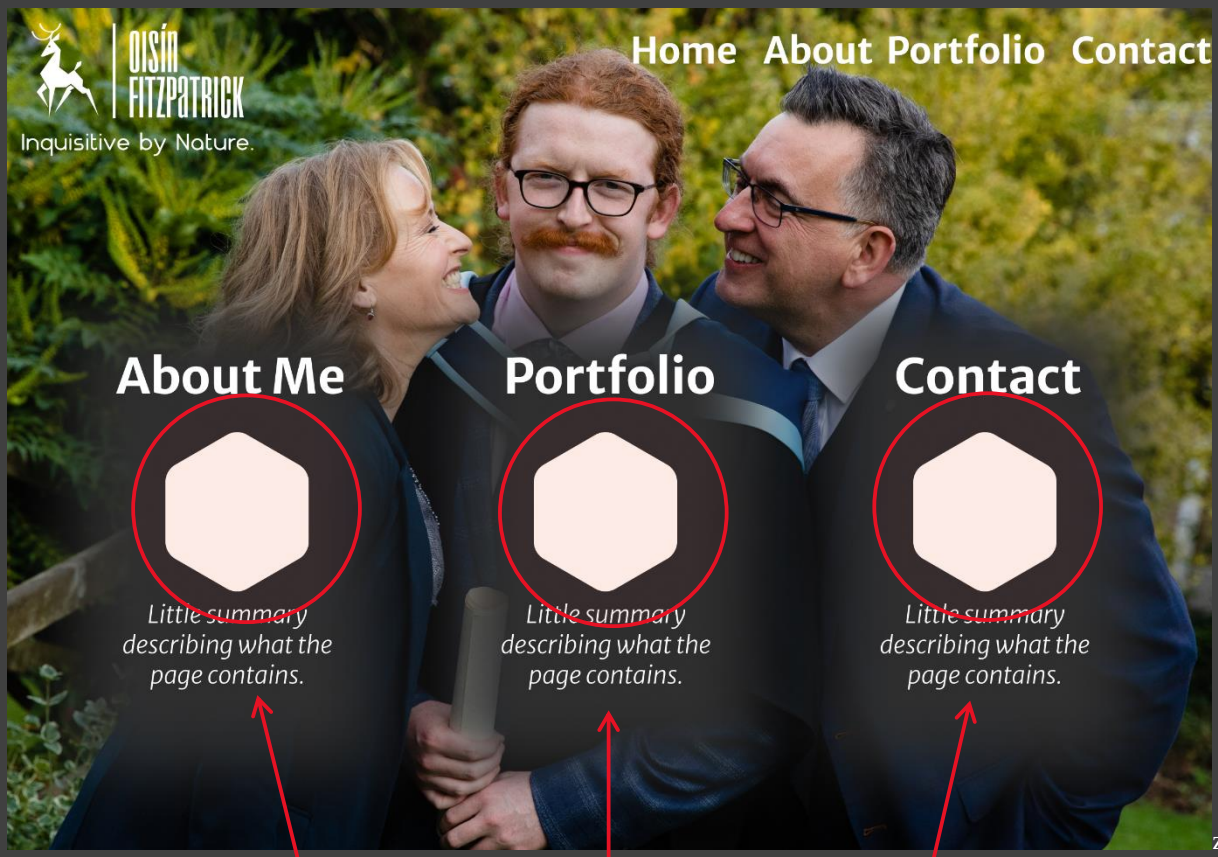



Mobile Portfolio

Medium Fidelity Prototype



The main content will scroll upwards, while the header remains in place (sticky). However, to supplement this less practical design, a traditional navigational bar is maintained within the header.



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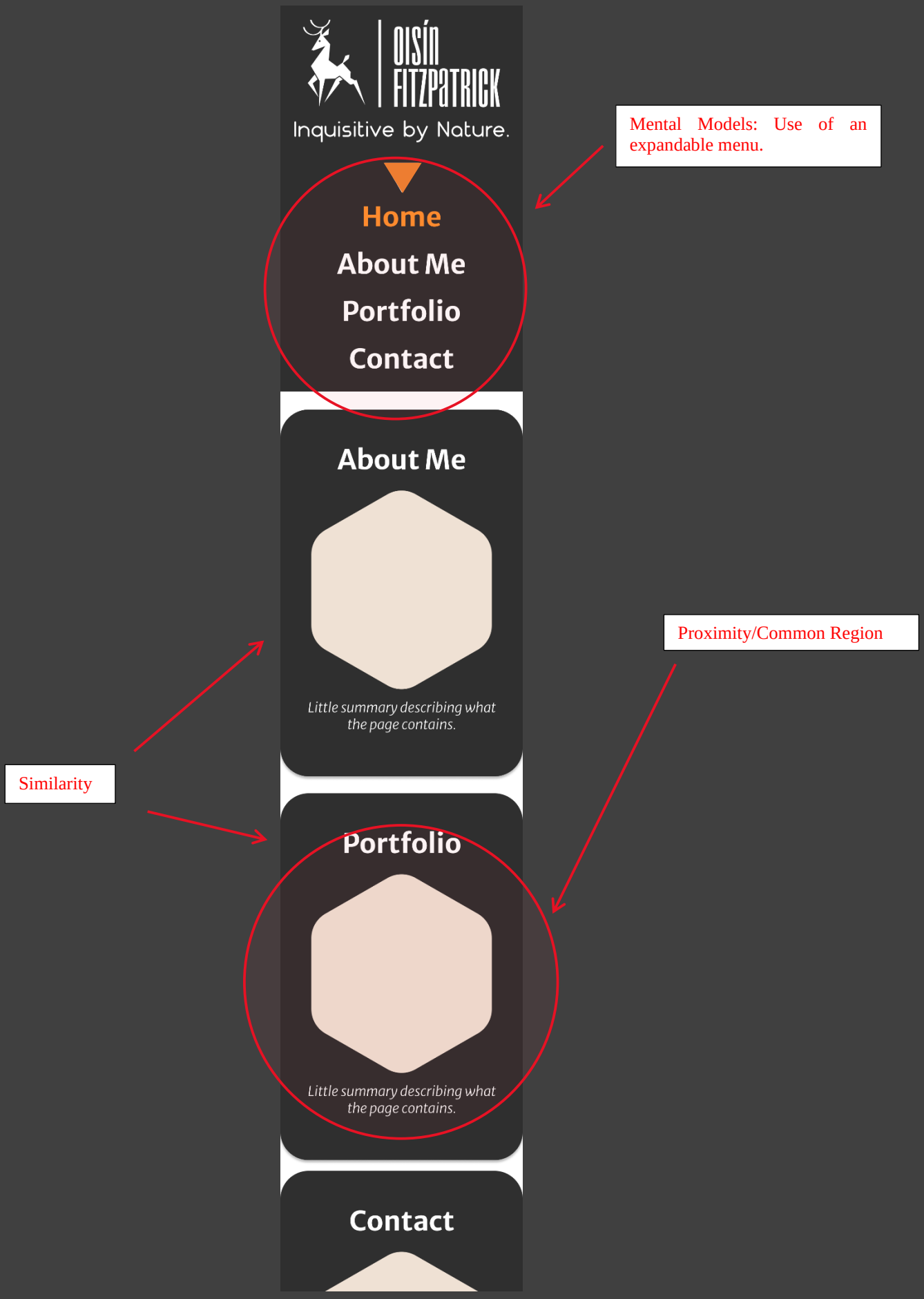
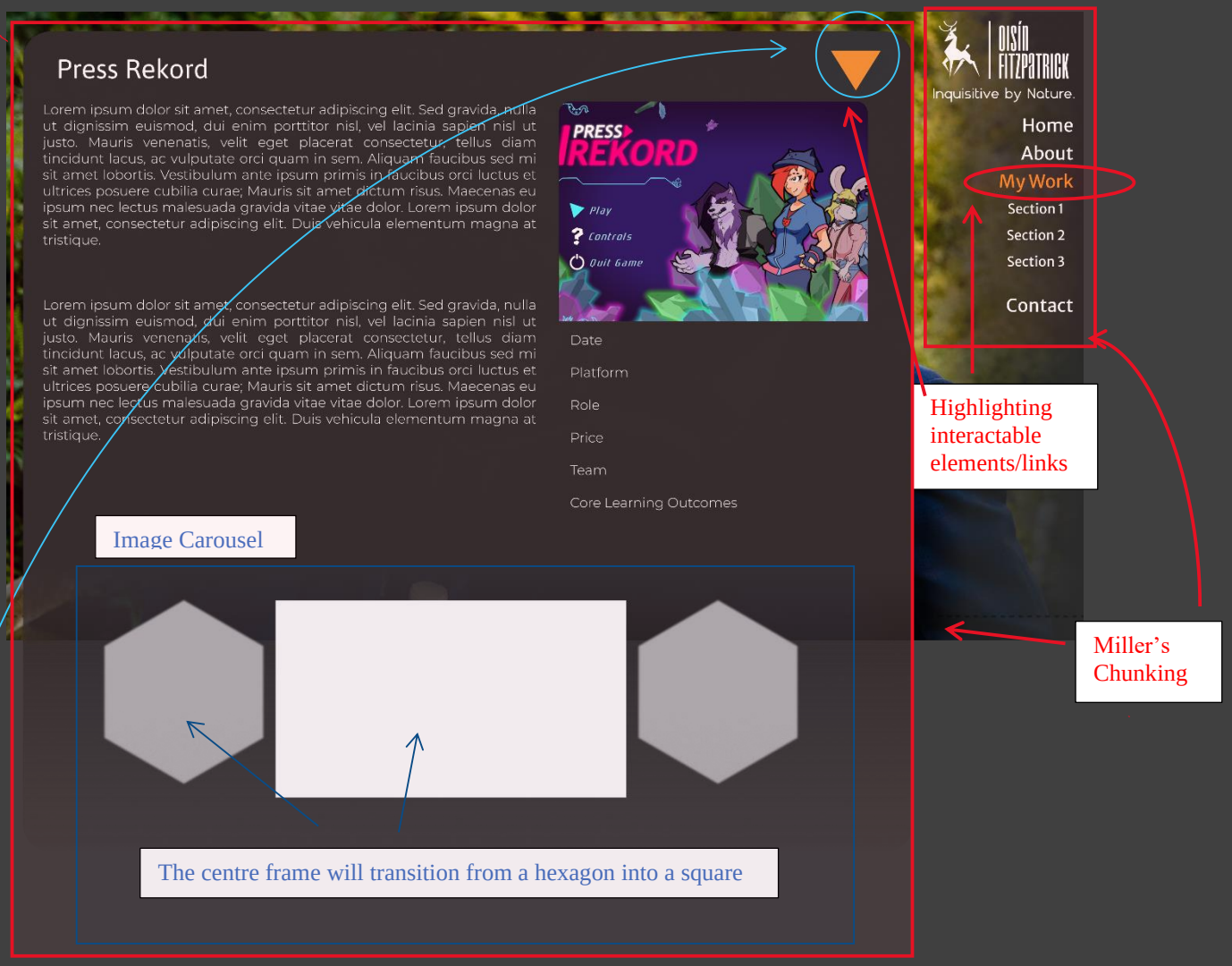
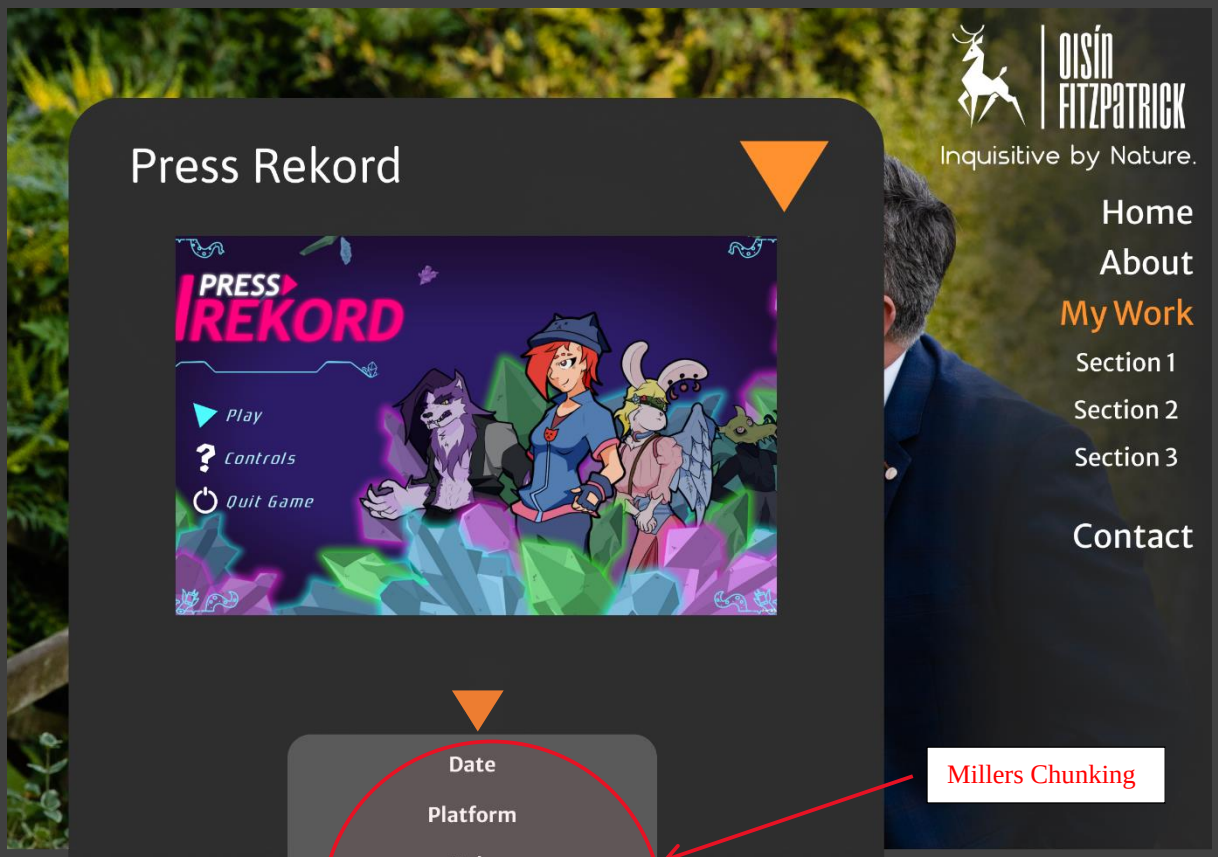
Shape elements, such as a images/icons within hexagonal frames or triangular drop-down button (see mobile), will have animations on desktop to indicate their interactive nature when hovered over. In addition, colour highlights will be used. On tablet/mobile, device vibration will be used (where available). This is inspired by the Behaviourist Theory of Learning


Oisín Fitzpatrick
Inquisitive by Nature.
Home
About Me
Portfolio
Contact
About Me
Little summary describing what the page contains.
Portfolio
Little summary describing what the page contains.
Contact
Mental Models: Use of an expandable menu.
Proximity/Common Region
Similarity



While not shown in the diagram, each portfolio project expands/collapses. This uses the same interaction as the mobile drop-down navigation menu. This is available on all devices, although the mobile example for this is missing. This was added after the wireframe was completed. This helps reinforce learning across multiple devices.



Press Rekord

- Date
- Platform
- Role
- Price
- Team
- Core Learning Outcomes

Millers Chunking

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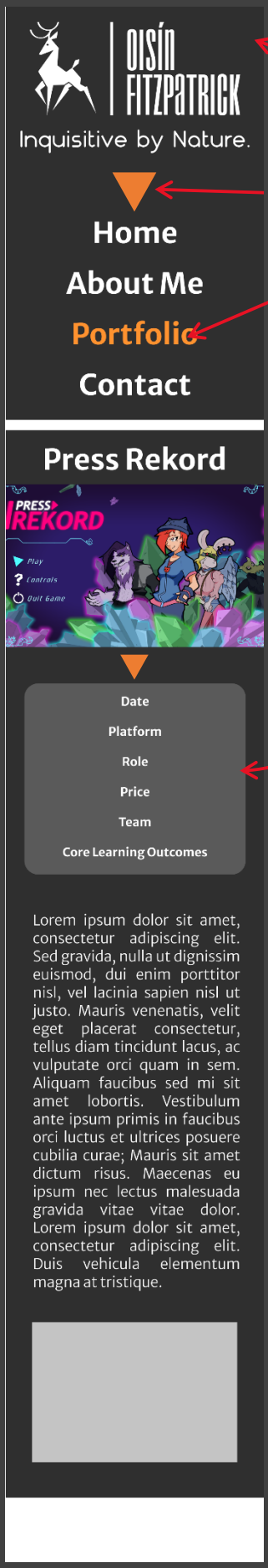
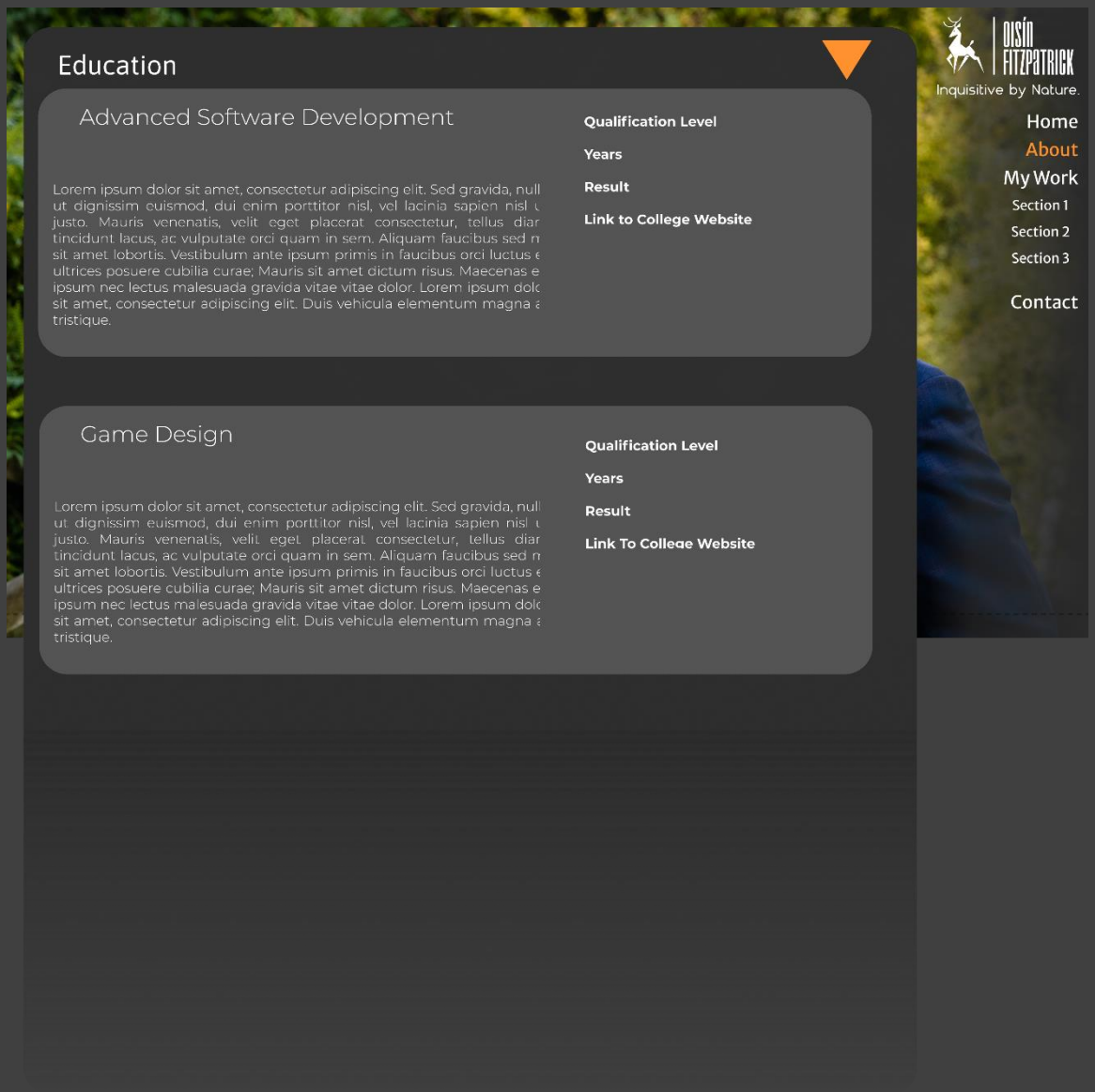


Using the 60-30-10 rule as a guide for colour scheming. Exception is made with the key details portion of the project below. This helps simplify the user interface, and allows users to easily recognize interactable elements vs non-interactable elements.


Education
Advanced Software Development
Qualification Level
Years
Result
Link to College Website
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Inquisitive by Nature.
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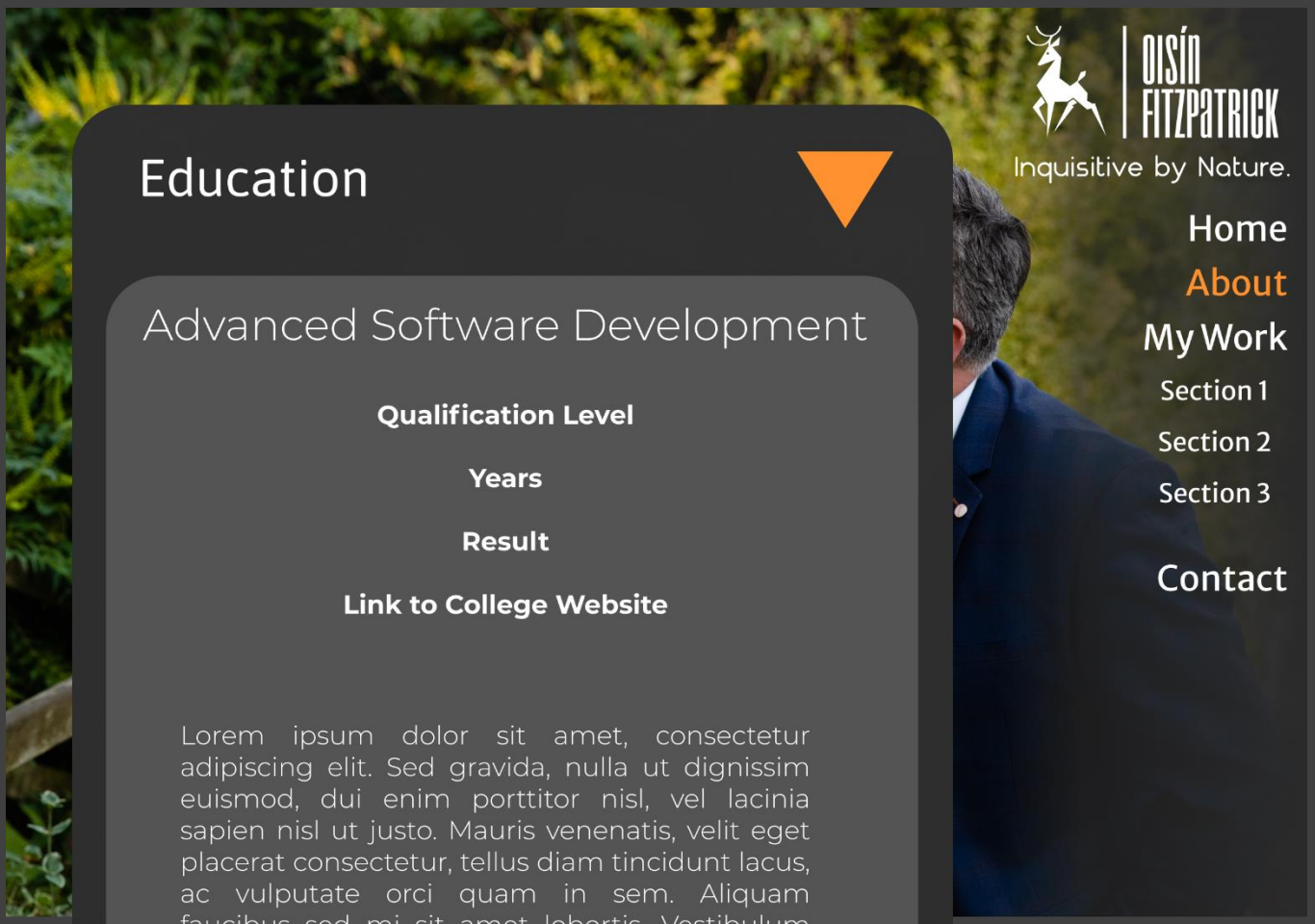
About
My Work
Section 1
Section 2
Section 3
Contact



Education

Advanced Software Development

Qualification Level

Years

Result

Link to College Website

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Education

Advanced Software Development

Qualification Level

Years

Result

Link To College Website

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