**Computing coursework**

Contents

[**Analysis** 2](#_Toc159850477)

[Problem description 2](#_Toc159850478)

[Stakeholders 3](#_Toc159850479)

[Identifying stakeholders 3](#_Toc159850480)

[Interviews with stakeholders 4](#_Toc159850481)

[Interview with Glynis: Why is it that you want this website to be made?: 4](#_Toc159850482)

[What do you want the website to achieve?: 4](#_Toc159850483)

[What features do you want the website to have?: 4](#_Toc159850484)

[Why do you want those features?: 4](#_Toc159850485)

[How often would you use the website?: 4](#_Toc159850486)

[Is there anything else that you want the website to have?: 4](#_Toc159850487)

[What do you want the website to look like?: 4](#_Toc159850488)

[What do you want the website to achieve?: 5](#_Toc159850489)

[What features do you want the website to have?: 5](#_Toc159850490)

[Why do you want those features?: 5](#_Toc159850491)

[How often would you use the website?: 5](#_Toc159850492)

[Is there anything else that you want the website to have?: 5](#_Toc159850493)

[What do you want the website to look like?: 6](#_Toc159850494)

[Essential features 7](#_Toc159850495)

[Limitations 8](#_Toc159850496)

[Software requirements 9](#_Toc159850497)

[Hardware requirements 10](#_Toc159850498)

[Why the problem is suited to being solved by computational methods 11](#_Toc159850499)

[Research into similar solutions: 12](#_Toc159850500)

[Similar solution 1 – Huel: 12](#_Toc159850501)

[Similar solution 2 - Holland and Barrett: 17](#_Toc159850502)

[Similar solution 3- Sifter: 20](#_Toc159850503)

[**Design** 22](#_Toc159850504)

# **Analysis**

## Problem description

It will be a website that will allow for the organisation of stock as well as clients for my mum. It will let people submit orders which will then come out of the overall stock total meaning that it can be monitored on the website instead of having to be kept track of. It will have separate areas for the clients and the consultants. The consultants will be able to view all of their clients as well as their orders so that they can be processed and the clients will be able to view their orders as well as the total price for the order. Potential for the consultants to have a chat group so that they can have an easy place to converse. It could also store the diet related data about the clients to easily track progress.  
  
 To make a more efficient way to organise the products that are being sold as well as track the numbers of products that each consultant has. It will make it easier for the clients to monitor their progress as well as the consultants being able to track the progress of their clients without having to have everything paper based. Each client and consultant will be able to cog into their own account so that they can have the information related to them.

Currently, whenever something has to be organised, everything is paper based or it has to be spread across a large number of programs. There is no one program that provides a hub for communication as well as organisation of products

## Stakeholders

### Identifying stakeholders

There will be two stakeholders for the website, the client that will be buying the product as well as the consultant who will be buying the product as they will be the two primary user groups for the website, with the only other people that visit the website just doing so in person. An administrator stakeholder is not needed at this stage as the scale of it is small enough such that the administrator powers can go to a consultant’s account who can then manage the accounts of others with little problem as it will not be a large job.

Should the website want to be increased to a larger scale, an administrator, whilst not required, would be helpful so would be added to the list of stakeholders

**Stakeholder 1:**

The first stakeholder is Glynis, who is a consultant selling diet products. She wants the website to be made and will be one of the main people coming up with ideas of what she would like it to contain. She currently has to work on paper and use multiple different pieces of software to organise and invoice all of her clients.

She is a stakeholder because having a piece of software that could replace all of the pieces of paper and different bits of software currently in use would prove very useful for her and it would mean that she would have more time advertising and talking with her clients instead of trying to do things such as invoice them for their orders of food.

**Stakeholder 2:**

The second stakeholder is Jane, who is a client for the business. She wants the website as it will help her keep a track of more things all in one place, such as appointments. Currently, she has to keep a track of when her appointments are herself which means that they can be easily forgotten and therefore missed. As well as this the ordering system is currently just on a messaging app which means that having a piece of software that could do all of this in one place as well as list things such as her preferences would be very helpful for her.

### 

### Interviews with stakeholders

### Interview with Glynis: Why is it that you want this website to be made?:

I want this website to make my job easier when I am trying to manage all of my clients. I have to keep a track of all of their stuff. I also don’t like spending all of my time trying to organise everybody’s appointments as it is a lot of work that I have to do every week, then people miss them if they forget or something like that which means that all of my work has gone to waste.

### What do you want the website to achieve?:

I want the website to make it easier for me to manage my clients because at the moment, it is too difficult and time consuming. I want it to make it easier for them to sort themselves out as well.

### What features do you want the website to have?:

I want the website to let me see my clients so I can track their progress. I also want it to let them order their stuff. I want to be able to have a chat feature so that I can talk to people in difference groups to motivate them and stuff like that.

### Why do you want those features?:

It is mostly just so that I don’t have to do it, because doing all of that work and then seeing people on top of that is very hard. But I also want it so that people can try and stay motivated and stay with the diet because when I was doing it, I found it very easy to find little excuses to cheat so having my motivation might stop people from cheating as much

### How often would you use the website?:

I want an appointment organiser for people to book their own appointments for whenever they are free instead of me trying to find a time for ages only for something to come up for them or for them to forget, It also means I would not have to use paper for it any more which would be very helpful

I would use it everyday because of my work.

### Is there anything else that you want the website to have?:

### What do you want the website to look like?:

I want the website to have my branding all around it and I want it to be blue like the rest of the branding for the diet. I also want it to have spaces so that there can be motivational quotes and stuff. I want to put messages around it as well so that I can inspire people and help them to keep going.

Interview with Jane:

Why is it that you want this website to be made?:

I want this website to be made so that everything is easier and faster to do because at the moment everything can take quite a long time which is a bit annoying when you have other things to do but you still have to make sure everything gets organised.

### What do you want the website to achieve?:

I want the website to allow me to cut out the middle man and just do orders and stuff like that by myself instead of having to rely on other people to do it for me

### What features do you want the website to have?:

I want the website to have a nice looking shop with pictures so that I can pick out my products and stuff like that. I also want a place where I can talk to other people doing the diet because it is nice to know that you are not the only one struggling through something difficult.

### Why do you want those features?:

It would make the process a lot more interesting and enjoyable compared to what it is like at the moment because at the moment you start to feel isolated when you are doing the diet, so having more interaction would be very good.

### How often would you use the website?:

Only a couple of times per week. Just when I need to check up on my diet stuff, really.

### Is there anything else that you want the website to have?:

I would also like to be able to organise my appointments using the website instead of going through my consultant. It is quite slow and being able to find a time more easily would really speed up the process which is currently very slow.

### What do you want the website to look like?:

As long as I am able to use the website for what I need, I don’t really care what it looks like! It doesn’t make much of a difference for me

## Essential features

My website will have a number of essential features which, after discussions, have been to be a crucial part of the website

* My website will need to have a shop that allows for people to select products and add them to a basket which can then be seen and processed
  + This is due to it being a diet ecommerce site but also due to streamlining the process of ordering the products instead of having to do it through a separate messaging app which is a lot more difficult and convoluted
* My website will need to have profiles for the consultants and the customers
  + This is so that the customers can see their consultant’s credentials and what is good about them, potentially showing any awards that they might have won
  + The customer having a profile means that it could be a place to track their progress with the diet overall and metrics to show it instead of just guessing
* My website will need to have a chat feature so that the consultants and clients are able to converse
  + This is to just streamline the process of talking to each other so that it does not have to take place over multiple different pieces of software or applications
* My website will need to have a login system for both the clients and the consultants
  + This means that people would be able to get to their personalised sections and get their personalised recommendations, otherwise they would not be able to
* My website will need to have an admin system in place that is not available for all accounts that can manage different accounts and their permissions
  + It means that if an account is set up as the wrong type, it would be able to be rectified since the permissions and status of the account could be changed
* My website will need to have different pages for clients and consultants
  + This is due to them needing different information to do what they need to on the website
* My website will need to have an appointment booking system for the customers to book their own appointments
  + This is due to the fact that currently a lot of time has to go into organising everyone’s time slot on paper which is a lot of extra work for the consultant to be doing

## Limitations

My website will have several limitations as to what it will be able to achieve both due to scope of the website and due to the level of coding ability that I possess.

* My website will not be able to process transactions or take money from anyone’s bank account
  + This is due to me not being comfortable with this as if anything went wrong, it would lead to potentially a lot of money being wrongly taken
* My website will not be able to handle an unlimited number of people at any one time
  + - This is due to cost constraints limiting the capacity of the server that I would able to buy, with it either being free of a cheaper option
* My website will not be able to organise for the delivery of the orders to the destination
  + This is due to it being outside the limitations of what I am able to achieve within the time that I have been given
* jn

## Software requirements

|  |  |
| --- | --- |
| **Software** | **Justification** |
| Visual Studio Code | I will be developing the website using VS code as it is a platform that can handle all of the different languages that I will need to complete the website. It lets me code in HTML, CSS and PHP without having to change program for each different aspect. |
| XAMPP | I will be using XAMPP during my development as a free local hosting solution so that I can see all of the things that will be server side processing. It will also allow me to have a very user friendly database system to come up with the initial idea. |
| Git, GitHub | I will be using Git and GitHub to be storing my work online just in case any of it gets lost. If it was just saved on one device locally, I would not be able to access it if the device got damaged or if I wanted to get access to it on a different device that I have access to. It also means that if the device gets damaged and has to be replaced or reset, I will be able to recover it. |
| InfinityFree | I will be using InfinityFree to host the website for when I have finished coding and want it to go live. This is the best server hosting system that I have found as it has a free hosting option that I will be able to use so that my stakeholder will not have to pay for the website to be up, but InfinityFree has an option to have a premium web hosting service. This means that if my stakeholder wants to increase the scale of the website it will be an easier upgrade as it will stay with the same company instead of having to make a switch. |

## Hardware requirements

|  |  |
| --- | --- |
| **Hardware** | **Justification** |
| 16GB RAM | This is the amount of RAM that I will require to develop the website and databases. I will need to run Git, XAAMP and VS Code which will as require a reasonable amount of RAM to run. |
| Mobile phone/Laptop/Computer | It will allow you to actually gain access to the website. I will also need a mobile phone or other handheld device to ensure that the website works properly and supports the handheld devices. |
| External server | It will allow for the storage of the data which is in the databases after the development process. |
| External hard drive | It will allow all the data to be backed up which means that if something happened to the main server, all of the key data could be saved. |

## Why the problem is suited to being solved by computational methods

This problem is well suited to being solved by computational methods since my website will act as an interface for the consultants and clients to interact and the database system that is attached is an easier way to manage large amounts of data, such as customer information, orders and remaining stock as opposed to keeping a track of it on paper. A website is a good way of managing a large amount of data without having to keep a track of it on paper which is very time consuming and it is easy for the data to be lost or damaged.

## Research into similar solutions:

## Similar solution 1 – Huel:

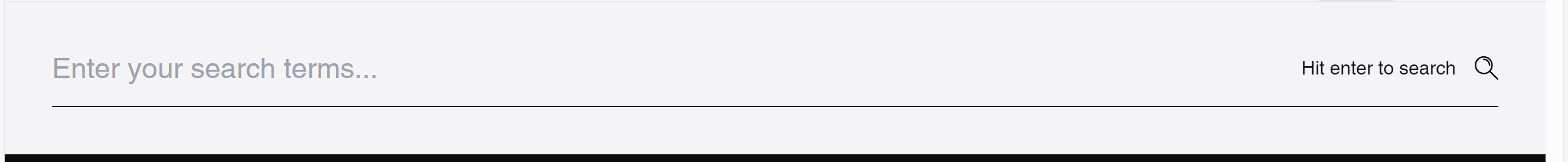
A group of products on a white background

Description automatically generated

* There is a large photo which is clearly displaying the type of products that are being sold.
  + It means that the consumer is enticed to buy the products.
* It shows a good review of the products that are being sold.
  + Having this as the first page that you go to when you open the website means that you are immediately given a good impression of the things that you are going to buy.
* This part of the webpage also contains a link to the shop which provides easy access for the consumer to go to the shop.
  + This could create an increase in sales due to there being such easy access to the shop. There is also access to an info page
* There is a link to an info page
  + This means that people are easily able to get the basic information about the company.
  + Anyone that wants to find out information will not lose interest due to needing to search through the website for the information.
* There is a navbar on the top of the page which allows people to easily navigate the website
* The navbar scrolls down with the page so you can use its navigation system regardless of where you are on the page
  + Having the navbar scroll down with the page is a better solution than having it fixed at the top is a better solution because it means that even if you are at the bottom of the page, you can navigate to other areas of the website without having to scroll all the way back up to the top
* The navbar means that you can get access to all of the key areas of the website that people would commonly want to get to.
* The navbar also contains a search bar which would allow people to quickly access something if they already know what they are looking for in the website.
* The navbar also contains a link to where you can change the language of the website.
  + This is very accessible because it allows non-English speakers to quickly change the language to one they can understand.
* The navbar contains drop down menus that makes the website more navigable.
  + It means that the website user can access a larger portion of the website from any other part of the website
* The navbar contains a picture of the ‘Huel’ logo which, when clicked, allows the user to get back to the home page of the website
  + This is good because if they get lost in any part of the website, it provides another way for them to continue using it
* A screenshot of a product

  Description automatically generatedThis is a very good menu as it has a wide range of products all showing a title of the section
  + Each item in the menu also has a description of what the product is for people who might be new to the website
  + Each item in the menu has a picture as well which gives people an idea of the area that they are going too before they go to it
* The text is in two different colours which makes it more distinguishable than if it was just one colour for both statements
* The two colours that were chosen for the text are Huel’s colours which makes it a lot more recognisable as Huel which is good marketing
* The menu is also good because it is very aesthetically pleasing due to the uniform colour of the whole menu as well as the text standing out from the background
  + It means that people are more likely to stay on the website because they like the look of it.
* A screenshot of a computer

  Description automatically generatedIt is in a black box whilst the rest of the website is white which means it stands out.
* It has all of the good things about the products in one place which means that the customer sees them all at once making them think there are more benefits
* It is located on the main page relatively near to the top which means that people are more likely to see it
* There are small images next to the text which draws people’s attention
* The text is concise which allows people to digest what is being said more easily whilst just glancing through the page.
* The text comes onto the screen by fading in (which cannot be seen within the screenshot) which grabs the reader’s attention and causes them to stop and read the text
* It has a large heading which means that the website user will be able to see what is in the box more easily

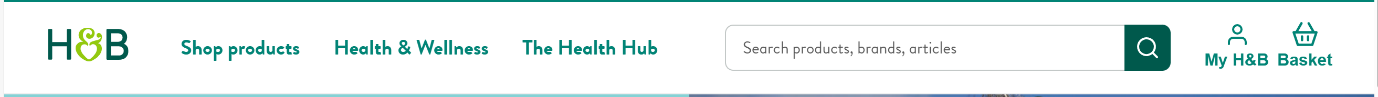


* The search bar is very large on the screen which means that it is very clear for people to see where it is instead of it being hidden in the corner of the screen
* The bar has a piece of text which allows the user to know where to type since the search bar has a very minimalistic design.
  + This means that people who are less familiar with websites are able to easily know where to type as it might not be immediately obvious.
* The search bar also contains a prompt which tells the user to “Hit enter to search” which is another usability feature for people who are less familiar with using websites.
* After starting to use the search bar, the rest of the screen becomes slightly darker which helps the user to focus on the search bar when they are using it.
* A screenshot of a website

  Description automatically generatedIt allows for a good UI for a small number of longer reviews which are presented in a way so that the user is not overwhelmed with information.
* It contains a fade to the right hand side which is aesthetically pleasing and increases the user’s enjoyment of the website.
* It also contains the qualifications of the people who are being quoted
  + This makes them seem more legitimate for the average person who is looking through the website as all of the achievements are there to be seen.
* The UI element also contains dots which allow for you to scroll without having to scroll
  + A screenshot of a phone

    Description automatically generatedIt also has the ability to manually scroll as it may be easier on some devices to scroll manually instead of pressing the button to scroll
* When the website is used on a mobile device, it dynamically resizes itself to fit to the screen to make sure that it still looks good for the user
* The number of navigation dots automatically changes when the page resizes so that the user can still access all of the elements.

## Similar solution 2 - Holland and Barrett:



* The navbar contains the logo for the company which makes people see it more when navigating the website
* It is in the company colours which makes it fit with the rest of the website as well as the branding
* It contains all of the key areas of the website that you might want to go to
* It allows to you to access the login page for quick access to the personalisation that comes with being logged in
* The navbar also contains a search bar so if people already know what they want to find they can go straight to it
  + The navbar contains writing telling you what to do with it which is a good accessibility feature as people who do not know how to use the internet as well might not be able to understand what to do with it

A close-up of a message

Description automatically generated

* This shows all of the popular item categories which can be accessed without logging into the website
* It means that the shopper might be able to find what they are looking for or what they might like without having to do personalised data
* All of the writing within the bubbles is in a clear font which means that it both stands out as well as being easily readable
* All of the bubbles have a picture that shows the category which they are in
  + The pictures are used all around the website which means that you get to understand them the more you use the website
* The background of the bubble is a different colour to the website which makes it more easily distinguishable at a glance

A screenshot of a menu

Description automatically generated

* The first part o the menu is good because it lists all of the main categories of items is a clear way
* It has them all clearly separated with the one you have selected being highlighted in green
* All of the category names are concise which means it would be easier to find what you are looking for as you go through the website
* The most popular categories are listed at the top as more people are going to be accessing them
* As the menu opens, the rest of the screen get darkened slightly which causes you to focus more of your attention on the menu instead of the rest of the website
* The first item in the menus contains the current deal which will get more people to click on it and engage with it because it is the first thing that they see

A screenshot of a computer

Description automatically generated

* After clicking on the first box in the menu, it then opens up into a wider range of menus which cover every subcategory of item that is in the shop
* This is not the best way to do a menu as it is very confusing trying to navigate through all of the menus if you are not entirely sure where the thing you want is
* It also takes up a lot of the screen which makes the menus seem very large and clunky
* The menus opening plays with a sliding out animation which is aesthetically pleasing and helps to improve the confusing menus
* The menus show the complete path that you have taken to get to that point, with it being highlighted in green
  + This helps you to navigate and backtrack to other areas of the menus
  + It also helps you to remember which section some of the items are in because you remember what was and was not highlighted so you can navigate back
* Not all of the menu options are consistent with the rest of the menu, just taking you straight to the option instead of opening more menus
  + This might be confusing for people using the website as they would be expecting to have another set of menu options open but it takes them to a different part of the website instead.

A screenshot of a phone

Description automatically generated

* Filters are displayed on the left of the page which allows people to narrow down their searching options based on what the want.
  + This is good as before anything has been done it can be quite overwhelming to see all of the options in one long list
* Each item has a picture of it on top of all of the other information about it
  + This is good because if people know what a product looks like but does not know what it is called, they would be able to find it in the shop
* Each item has its price displayed as well as the price per unit in the container
  + This is good because it means that people could more easily stick to a budget that they might set for themselves
  + It is good because it means that people would not have to guess how much they are spending when they go to check out

## Similar solution 3- Sifter:

A green and white circle with white text

Description automatically generated

* The login and sign up buttons are very clear, with them being located in the corner of the page
* The login button is green which is the same colour as the brand which means it fits in more with the website
  + It is also an accessibility feature as green is the universal colour for go which means people see it and instinctively know that they have to click it
* The sign up button is a different colour to the log in button
  + This means that they can be easily distinguished when quickly looking over the website and it avoids some confusion of clicking the wrong button

DO MORE RESEARCH DIDN’T LET ME LOG IN

# Success criteria

|  |  |  |  |
| --- | --- | --- | --- |
| Success criteria | | | Fulfilled? |
| Website | Login system and User management |  |  |
|  |
|  |
|  |
|  |

# **Design**

A diagram of a diet

Description automatically generated

A cell phone with a blue paper on it

Description automatically generated