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**Fitness application with website**

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# Introduction

I have created an app and a website that is based on fitness, health and workouts. The idea of the app is for the user to be able to track what they are eating and how much they workout. The idea of the website is so that there is more learning and education involved. The app will have multiple pages so the customer can gather a full understanding of how each page works. Hopefully this app will allow users to help them achieve their goals. Also, the website will have multiple pages so that the users can be well educated and understand the meaning behind the app. User will be learning how to lose or gain weight. This can be in the form of muscle gaining or fat loss. The website will provide a detailed approach of how these things can be done. So that the user can gain education form the slides.

## Target audience

The target audience will be based on people who are into fitness and want to know the breakdown of foods that they’re eating so they can track the calories to ensure they are eating healthy. It will also suit the people who are going to the gym and want to track their workouts. They can input what exercises they done, how many sets they did of that exercise and how many repetitions they did of that exercise. This will also suit general people who just want to see what they’re eating and how food can help them gain or lose weight.

# Aims and objectives.

The aims and objectives are to produce a well-structured application and website that will allow users to create an account, login, see calories in foods and track workouts. The application will be based purely on fitness, and this will allow the users to educate themselves on these things. The apps user interface will be shared between students to get some feedback of what user face they think is better suited.

Furthermore, creating a website that will offer the user to expand their knowledge by going onto to the website. This will have a good user interface a clear set of instructions for the app and common knowledge on nutrition. The information displayed will be met through background research and learning that I individually will be doing. This will gain a sense of trust between I and the user. To meet the high standards of websites I will need to make sure the website is fully functional and interactive with users and that no errors are involved, and the users will return with no bugs. The website will be validated to check this and tested by myself from using the website from a user perspective.

The next objective is to use HTML, CSS, JAVA and android studio. These are techniques that I am already aware of and have a good understanding of. If an error is occurred, I will not hesitate to do some research and questioning to ensure that the error goes away.

Another objective will be allowing the users to input to workouts to allow them to see what they have done previously. I believe this is very useful as the users will no longer need to rely on memory, they will just need to input the workouts they do, and the data will be stored. So, when they do the same workout next time, they can improve the weights they are lifting or the number of times they are doing it.

Another objective is the login and account page. These will be secure for the individual users and the passwords will not be shown to anyone else as they are stored within a protected database.

All factors mentioned are important points and will all be analysed thoroughly and will be compared to another similar application involved with the same information being shared. This will allow me to see what information I can add to be different.

## Competition

MyFitnessPal is a good example of my application as this tracks calorie and gives you goals of what to achieve too. Also allows progress to be tracked and shows an indication of what you are achieving over time. The progress is shown by a graph which is useful as it will show an increase or decrease in achievements. The difference between apps is that my app is mainly focused on the two main things of nutrition and workouts, and they have a range of functions that can be used. MyFitnessPal also have a website which shows the user key bits towards the app and allows the user to get an insight of how the app will work.  My website differs as it will be displaying general information, and their information is tailored to the application.

## Deliverables

* Application will have a login, registration, homepage, nutrition page, workout page and a goals page. It has a good user interface which has had feedback throughout. The application is fully functional with a good level of detail. Each page will require a different use for the user, and it will allow them to do different tasks.
* Code files are all the code implemented on the website and application including HTML, CSS, JAVA and android studio. This will allow the user to view each individual page.
* Website will have main page, application page and a contact me page. This will ensure the user will have full understanding of the website and the application. Main page will be based on general healthy lifestyles, app page will focus on the application layout for those who may not be able to get the application and the contact page is so that I can answer any questions from users.
* Report will have all the stages gone through the project in full detail. This includes planning, technologies, designs, development, evaluation and more.

## Gantt chart

Figure 1

This Gantt chart represents the process of all the weeks during my project. Before I started my project development, I wanted the research to be a major part of my project. I had to do some research and palming on what to do first. I wanted to start and finish the application before the website as I felt like that would be the major aspect of my project. The time planning was spent by seeing different ways I could present the idea of what I wanted to do. The original designs were basic and simple. After looking at other project designs, I knew I needed to add something that would make my application look to a good standard. I came across some technical challenges as stated later. These were regarding the application not being fully functioning when developing the app. This caused me to spend some time on this area as I need to figure out what was wrong before moving on. After the challenge was overcome the ideas had been set and it was time to develop. The development stage was the longest period as this was developing the application and the website. Some of the parts of the application were hard as I had never done them before. These include being able for users to store data. Also, for the website I had not added a table to the website before so learning this was a new objective. When it comes to testing for android studio there some problems caused, and this caused me some issues throughout the process but when all resolved the application worked as I wanted it. Upon reflection there are some things that I would change to my application, and these can be found in the reflection area.

## Methodology

During the project I will be using agile method to complete my project. by using agile it will allow me to break the project into phases and allow me to one part of the project bit by bit. The use of agile involves individual interactions through questionnaires. It allows me to see each stage of every individual section that is being developed. Also, if the plan may have to change the use of agile is important as it is more flexible than the other methods. Also, with their being a lot of code involved within the project testing becomes a key area throughout the project and with agile it makes it easier to tests areas of code in stages bit by bit. The plan for the application changed at times as I was unsure of what pages I wanted to make in the app. I had thoughts of making the app insert calories and allow the user to insert weight and heights and then the app feedback a plan for the user to stick too. But when trying to do so I could not get android studio to fully function in the way that I wanted it to.

# Planning

When planning this project, I wanted to have an app and website that will complement each other and allow users to find it easily accessible and easy to follow the instructions. Also, I felt the use of the website will be helpful to help users gather more of an understanding about their activities.

## Risk assessment.

There are multiple risks to think about when making both a website and an application. When making the application I need to be careful about copywrite and make sure information grasped is referenced. Another thing to think about is the different servers that I am working on such as android studio and Brighton domains. Also need to think about all the issues that android studio may have. These could be an issue with the code or an error with just running the application.

## Risk analysis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Risk description | Likelihood | Impact | Mitigation Action |
| 1 | Brighton Domains server going down. | LOW | HIGH | Have a frequent reminder for backup files so the application can run. |
| 2 | Android Studio crashing | HIGH | HIGH | Have separate files so if one becomes corrupt then the other is still fine. |
| 3 | Corrupted files | LOW | HIGH | Allow for frequent updates in case of corruption and minimise the amount of loss. |

All these risks need to be thought about so that there can be minimal wrong goings throughout the project. Things to also to think about can be data protection act and the copywrite act. These will come into place with the data from the app being confidential and the different pictures being displayed on the website and application also.

## Motivation

I have decided to make an app and a website as I have enjoyed using my developing tools through my university experience and feel like it will be hugely beneficial to me to use them for my final project. I have also decided to do this project based on fitness as I believe the use of sharing this information needs to be known.

## Solutions

The main solution to come from my project is that any person can gather an understanding on basic day to day eating and gather some information on what they are eating. This can be regarding what is in the food they’re eating or how many calories are in the food they’re eating. This becomes beneficial as if a person is wanting to lose weight but is still eating a large amount of food this will becomes somewhat impossible for the person as to do so you need to be in a calorie deficit. Everyone has a maintenance allowance which will make the person maintain the same weight and if you go below the said allowance for some consistency and frequent exercise this will allow you to lose weight.

## Reasoning

The reason behind making the app and website is so that people can gather a better understanding. The information being displayed on the website will be common information that will not disrupt people’s general life or put their health at risk it will be just another place to expand knowledge and another place to see the information. Within the websites there will be suggestions made and this information will be for the user to see if they are wanting to lose or gain weight.

## Requirements

* Easy navigation. This is to allow users find each button and each page as easy as possible so they can get the full functions of the app.
* Deliver information. To allow the user to achieve the end goal of the website by expanding their knowledge.
* Allow people to check calories. Nutrition page allows this as there are multiple foods shown that have a breakdown of the foods shown.
* Allow people to track workouts. This is down through the workout page. Users can insert different workouts they have done and for it to be stored.
* Login details. This is the opening page users can login with their account they have set up.
* Registration page. This is the page that can come up if the button is clicked from the opening page and then can make an account.
* User interface. Needs to be simplistic so it becomes easy to follow but also needs to be eye catchy for the user to feel engaged.
* Goals page. This is where the user can input their own personal goals that they want to do. This could be a weight goal or a lifting goal.
* Workout page. This is where the user can keep up to date with their progress within the gym as they can store their data onto a page, and it will be there in the future.
* Forgotten password button. I wanted to add this to allow users the chance to change their password if they could not remember it. This was unable to be implemented as after some research I still could not get the button to do as I wanted.
* I was also unable to add the feature of a profile page to my documentation. I wanted this so that the user could add their specific weight and height and then when they weighed themselves again, they could see if they had lost or gained weight.

# Technical challenges

* Thinking of something to make. This was an issue to start with as I had no initial plan of what I wanted to make. I wanted to make an app because I felt like this is where my skills would be, and it is something that I enjoy doing. But I was unsure to what to make the app about. After some research I decided to make the app on fitness as I am quite into going to the gym and felt it beneficial for myself to find out other information displayed to expand my knowledge as well. Overall, I feel like this has been a good idea for me to do and has exerted my skills and I am happy with the finished product.
* Getting the CSS script. Making the CSS script suit how I wanted to make the website was quite hard as I had many options to go through, but I had made a website previously and this helped me decide that I want to display the information in the same way. The information displayed will be in stages with detail added to explain the information.
* Android studio functionality. Android studio previously has always been a good working system but recently for my application I have always come across different encountered errors and this has been frustrating throughout the project. The problems have been that the app simply would not run but on another computer it was fine. Also, some buttons wouldn’t show up imported from android studio but when my own button was implemented it would show. Lastly the alignment of where I wanted buttons or text boxes to be became increasingly difficult the more, I added into the application.
* Android studio errors. Sometimes when there is an error it is clearly shown and labelled on what line and what activity it is but sometimes it is not displayed, and you must find the error yourself. Android studio would tell me I needed a colon, or a bracket and the problem would still be unfixed.
* Researching specific things on android studio. I had an error that led me to look up some information on android studio. The error was “zip end header not found” this error had come just from me loading up android studio. When I then reran the application, it was then fixed.
* Adding features. When adding buttons, images and functions to android studio it is sometimes easy but on occasions the application would run, and the button or picture would not be shown. Once the button or picture changed it would show. Also, when adding textboxes, the alignment of them would sometimes be wrong and when the app is run it would be in the wrong place.
* Finalising website. Making sure that the website can run and not have any errors or complications when running through each page. At one stage there was an issue with connecting one page to another but is soon figured that out.
* Creating new android activities. When making the application I needed to make new activities for there to be multiple pages being displayed. Sometimes when I had made a new page and clicked the button it would cause the app to crash and make me must find the error myself as there would be no pop up. This was very frustrating at times as I had spent a vast majority of time rewriting code.
* Making one page go to the next android. I needed to make one page to go to another through android studio and this is done through making “on click listeners” for this to work. Sometimes this would be a struggle as the listener would not be declared and made me back track through the work to find out if I had left a piece of code out.

# Technical Research

I did some research on some of the ideas that were originally suggested these ideas contained website functionality, AI application, UML, mobile applications and more. I choose to make an app originally as I really enjoyed doing this last year. I felt that making the app would not be enough to have so I decided to have a website as well that will work with the application.

Some research needed to be done on android studio as well as some of the things a wanted to implement I had not done before previously. So, I did some research on how to add a table and make the application more functionable for the users to enjoy.

# Technologies

## Android studio

Android studio will be the platform I am using to create the app this will allow the app to be playable and maintain a high account of user experience. The buttons will allow users to go through different pages and each page will have a different outcome for the user.

## Brighton Domains

Brighton domains is the platform for the website this will be interactable for the users to help them with any confusion with the app. The website will have instructions on how the app will work and how to keep an account secure and make sure no one loses their account. The website will also have brief fitness plans and an understanding of nutrition.

## SQL

SQL is used to communicate with databases. It stands for structured query language. When making a database and allowing it to have a function the use of SQL is essential. As it allows users to have a server that is easy to use as it has all the correct things to do so. For example, deletes records from the database, it can create a new database and more.

## HTML

HTML is the standard markup language for web pages. It allows you to structure the website in the way you want too. It consists of major elements for it to work and these elements tell the browser how to display the content. This can be seen as how the layout can be and different types of fonts and more. For example, and element of HTML can be the head, and this allows the user to insert characters and then will be shown on the website.

## CSS

CSS is the style sheet of the website. This describes how the elements are used and how they should be displayed on the website. Without this the website will have issues as there will be a lot of overlapping with each other and this will mean the website cannot be read properly. the use of CSS will allow the users to edit their website the way they want to with the right coloured and the text size and how it will be displayed.

## Brighton domains

By using Brighton domains this will allow me to create the website and enter anything useful and for it to be posted in a website format. As mentioned earlier with the use of the other technologies this will allow the website to be styled. This domain allows for the source code to be uploaded and be seen by anyone.

## Java

Java is being used when coding the app. By using java, it allows me to use my knowledge better as I am familiar with java as have used it previously many times. Java is a coding language which is very good as it thrives in developing open-source projects such as the website.

# Development

During this phase there were some areas that needed to do an extra bit of research for that specific thing to work. Also, this phase allowed me to do some more research to expand my level of expertise.

Login and register- The login and registration phase are done through android studio and allows users to create an account and allows them to log into this specific account. This is done through firebase to ensure the users information can be stored somewhere when written.

Onclick listeners- These bits of code allow the pages to go from one page to another. For example, my login page once logged in takes the user to the homepage and once the homepage loads up you can click the other various pages and it will then take you to them pages.

Back button- This is to allow the user to return to the original page. For example, when the user goes onto another page, they can then return to this page by pressing the back button. This makes the users experience a lot easy to navigate and understand. This button is also very important as without this button the user would be stuck on the specific page.

Information storing- I was previously unaware of the storage of data through android studio but have now got a way the user can store information, and this is a pivotal part of my project. This was done by doing some research about how information could be stored where a user can leave the account and have their information stored.

# Product Description

## App

I have created an app that has many different pages to the app. The app has a register page where the user can sign up to the application then they will be taken to the log in page and be able to log in. this will then take them to the homepage which will then show the multiple other pages. These include a nutrition page, workout page, calorie page and a goals page. Each page will have a unique instruction for the app to do.

## Website

I have also created a website that will also have different pages on it to show different purposes. One page will have the basic learning, another page will have the app information. This will help the user follow simple instructions for the app and allow them to use it if they are confused. Lastly the last page will be a contact me page to allow the users to contact me to see if I can help them with any needs.

# Product Details

## App

The app will have many different pages to it. For example, it will have a profile page, home page, nutrients page workout tracking page, goals page, login and registration page. All these pages will have different outcomes and easily accessible for the user to use and understand. The end outcome will be for the user to be able to track what they are eating and when they are eating it. This will complement the website as that will be used as an informant to user to gauge an understanding of the basics of weight loss or muscle gain.

Before and After

I feel like this will be a good way to show the process of the application building. The before will be the first prototype I have built, and the after is the final product of how the application has ended up. These before and afters are part of my questionnaires to students and the afters were influenced by these questionnaires.

Before

After

A screenshot of a login form

Description automatically generated

Figure 2

A screenshot of a phone

Description automatically generated

Figure 3

Registration page

This is where the user can sign up to the application. The user will need to enter their email and have a password that is more than six characters. After inputting that they can select register and then this will then have a toast message saying successful or unsuccessful to see if they have met the requirements of registering.

A screenshot of a login form

Description automatically generatedA screenshot of a phone

Description automatically generated

Figure 4

Figure 5

Login page

This page is so the user can login to the account they have created. The user can enter the email and password they registered with and then click login, and this will then take them to the homepage where they can then navigate through the different pages.

A close-up of a cell phone

Description automatically generatedA screenshot of a phone

Description automatically generated

Figure 7

Homepage

Figure 6

This is the homepage, and this is the first page that will show up when logged in. this will then allow the user to pick a different page for the users to select. These pages are the workout page, goals page and nutrition page. There is also a button in the top right corner that will allow the user to logout. This will then take them to the main activity which will allow them too fully logout. Then they will return to the login page.

A screenshot of a cell phone

Description automatically generatedA grey rectangular object

Description automatically generated

Figure 9

Figure 8

Nutrition Page

This page allows users to check what they’re eating. The table breaks down the food nutrients in specific foods. This allows users to check what they’re eating. For example, if the user wants to have a banana, they can see how many calories is in the banana the protein breakdown and more.

A screenshot of a cell phone

Description automatically generatedA grey rectangular object

Description automatically generated

Figure 11

Figure 10

Workout Page

This allows users to store their information from their workout. For example, when they go to the gym, they no longer need to remember what weight they were lifting previously as they can now just write it down and then have progress from there.

Goals page

A screenshot of a cell phone

Description automatically generatedThis is how my goals page ended up. This page was not in the original planning, but I decided to add this page as I wanted the users to have their goals noted down as well. This could be what weight they want to hit or what weight they want to hit in the gym.

Figure 12

## Website

The website I have given three separate pages for the user to use. The first page will be the main page of information and details about fitness. The second page will be the app detail and lastly there will be a contact me page for anyone to contact me if they are confused about the app of website.

## Main page

It will be a high levelled quality polished example for users to see safe ways to lose or gain weight. It also teaches the users how to understand calories and how they affectively work.

## App page

This page will give clear instructions on how the app will work and what they can do on the page. I believe by adding this it will allow the user to get stuck into the app quickly and allow no errors for the user. With this information being shared the user can follow the simple instructions if they become stuck.

## Contact me page

This will allow users to contact me and to answer any questions they have regarding the app, website or any queries they have. I believe the use of this page is key so you can have clear transparency between the users and allow them to have a clear understanding.

## Stages of making the website

## Main Page process

A moon over a mountain

Description automatically generatedThis was the beginning of me making the website this was the original layout and background that I went for. I had used this background and layout before, and it worked quite well together. The first thing I did was make the three pages in the html folder, then styled them with the CSS. The next step was making them connect to one another. After the pages were connected, I then started to add the information that I wanted to share on them. The main page will be for the general weight gaining or losing and steady ways to do so. The first page will also have the table of the nutrition table that is in the application that has been made. I feel that knowing this information should be essential as these are the most common foods to eat.

Figure 13

## Application page process

A moon over a mountain

Description automatically generatedThis is how the page started for the application page. I made sure that all other pages could pass through each other and that the background could be implemented and the afterwards wanted to add the information that I was going to present. This screen will show the different pages shown on the application. I felt like this would be a good idea as some people may not be able to access the application but can access a website and the page will explain what the app does.

Figure 14

## Contact page process

A moon over a mountain

Description automatically generated

Figure 15

Lastly this page was always planning to be a contact me page I feel like the use of this will be beneficial for the users as If they have any questions, they can email me.

# 

# Finished website pages.

# A pair of dumbbells and a jump rope Description automatically generated

Figure 7Website first page.

Figure 16

A pair of dumbbells and a skipping rope

Description automatically generated

Figure 17

# A pair of dumbbells and a strap Description automatically generated

Figure 18

# Testing

Testing is a major part of what I am doing. This is because it includes a whole variety of different stages throughout this process. When making the app to make sure the app is functioning the app will get run. Then by going through the logcat there will be any underlaying errors that will show what is wrong with the application. These errors can be as simple as a bracket.

A screenshot of a computer

Description automatically generatedTesting needs to be done throughout the whole stage of making the app. For me every time I had created a button or an input, I ran the application to make sure that there was nothing wrong with the code or nothing wrong with the build. This ensured me that the coding was correct and allowed me to continue to the next stage. At some stages the app would just crash and not show any errors. This became frustrating as I was unable to move on from this stage at times.

Figure 19

When testing the website on a mac book the colour of some of the words comes out different to when it is run on windows. For example, when the website is run on a MacBook the table appears to be black but when the website is run on windows it appears to be orange. I was unable to find out why this has done this, and this has become an issue for the MacBook as some of the writing blends in with the background.

## App Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test NO. | Scenario | Wanted result | Actual result | Pass/fail |
| 1 | Logging in | User logging in. | User was able to be logged in. | Pass |
| 2 | Registering | User signing up to the application. | User was able to register. | Pass |
| 3 | Nutrition page | A page that displayed nutritious information. | A nutrients table was created on this page. | Pass |
| 4 | Workout page | Users able to store workouts. | Users able to see what workouts they done on what day. | Pass |
| 5 | Goals page | Users can input their goals of what targets they want to hit. | Users can insert specific targets. | Pass |
| 6 | Barcode scanner | Users able to scan packaging of what foods they’re eating. | This was something I could not get done as adding a camera was not easy. | Fail |
| 7 | Weight and height section | For users to insert their tailored requirements. | This was not added as I could not get the code to work in the way I wanted. | Fail |
| 8 | Interactive pages | Users able to flick from one page to another. | This was achieved users can select many different pages. | Pass |
| 9 | Back button | So, users can go from the page. they clicked to the original page. | This was achieved as users can go back. | Pass |
| 10 | Food table | So, users can see different food nutrients. | Food table displays food nutrition | Pass |
| 11 | Adding own pictures | Pictures added into the app to become buttons. | Copyright free images have been added to the app as buttons. | Pass |
| 12 | Logout button | To allow users to get out of their account. | Two logout buttons have been added. | Pass |
| 13 | Main activity | To make it be the last page the users see when they logout. | Is the second logout page for the users. | Pass |

## Website Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test NO. | Scenario | Wanted result | Actual Result | Pass/fail |
| 1 | Main Page | To show information to users about nutrition. | This was achieved as users can read and take in the information shared. | Pass |
| 2 | App page | To show users instructions of the application in use. | This was done as the designated page shows users the different pages usages. | Pass |
| 3 | Contact me page | To allow users to send emails to me if they have any questions. | Contact page is running and I can be contacted through this. | Pass |
| 4 | CSS | Stylesheet planned out to allow the website to scroll down on various devices. | Multiple devices can be used to view the website. | Pass |
| 5 | HTML | A coding language which allows information to be shared. | Information is shared across the website to users. | Pass |
| 6 | Pictures | Pictures of the application working. | These have been added and described in full. | Pass |
| 7 | Tables | Table to be seen by users of nutrients information. | Table can be seen by users. | Pass |

# Coding

When coding my application, I started with the login and registration page. This allowed me to go through and learn about firebase. After doing some research I saw that I needed to authenticate firebase and connect it to the android studio project. I then decided to style it the way the questionnaires had decided and then got to coding both the pages.

## Login page code

A screenshot of a computer program

Description automatically generated

Figure 10 Login Creation

This piece of code is through the java file of the login page. This code represents the application having a login page and making sure that the page is all authenticated with the correct edit and text views.

A screenshot of a computer code

Description automatically generated

Figure 11 Email and Password fields.

This code is on the XML file of android studio and show the strings and inputs of what the user will need to enter to log into the application.

A screenshot of a computer code

Description automatically generatedThis code is showing the different strings added. For example, email and password. It also shows the different toast messages that will be received if the input is entered in a certain way. For example, if the login is correct, it will say login successful.

Figure 12 Login Page OnCreate

A screenshot of a computer program

Description automatically generatedThis piece of code shows the login page being able to pass through to the registration page by clicking the text view.

Figure 13 Login page connecting to Registration Page

## Registration page code

A screenshot of a computer program

Description automatically generated

Figure 14 Registration connecting to firebase.

This code shows the firebase authentication being able to be processed and activity being able to start.

A computer screen shot of a program

Description automatically generated

This code is representing the registration page being able sign someone up to the application.

Figure 15 Registration OnCreate

A screenshot of a computer program

Description automatically generated

Figure 16 Registration Toast messages.

This code is showing the different toast messages that will respond to the inputs by the user on the registration page.

A screenshot of a computer program

Description automatically generatedThis code allows the registration page to be connected to firebase and when the registration button is pressed the user will be signed up.

Figure 17 Registration XML APK

A screenshot of a computer program

Description automatically generatedThis code shows the passing between the registration page to the login page.

Figure 18 Registration to login.

## Homepage code

This code shows the homepage being able to connect to the other pages that are integrated within the application. The code shows the movement between one page to another by the onclick button.

A computer screen shot of a program

Description automatically generated

These image view lines of codes resemble the image being able to be clicked by the user and then them being able to be on that page. This is done by the ID and the srcCompat to allow it to be compatible with the other pages.

. Figure 19 Homepage to the other pages.

## Workout code

A screenshot of a computer program

Description automatically generated

This code shows that the user can save information to the page and the information will stay there until the user removes this information.

# A screenshot of a computer program Description automatically generated

This piece of code shows the buttons and the on clicks being able to be read.

Figure 20 Java code for my workout page.

A screenshot of a computer program

Description automatically generated

This piece of code resembles the user being able to edit the text they have inputted onto the application. This means say they have inputted a certain weight they can change that if they have improved.

Figure 13 Edit text for users to change information.

A screenshot of a computer program

Description automatically generated

This code shows where the user can select to save the data onto the application, and it will store there.

## 

Figure 14 Users can save information posted.

## Nutrition Page code

A screenshot of a computer program

Description automatically generated

Figure 21 Nutrition java page.

The nutrition page has little java code involved it just allows the user to go from one page to another and allow them to pass data through.

A screenshot of a computer program

Description automatically generated

This code shows the table that has been implemented onto the application. This code shows the headers if the table and below has implements of food. As the code states the food is split into the per 100g.

Figure 22 Nutrition Table

## Goals page code

A computer screen shot of a program

Description automatically generatedthis code refers to the goals page being allowed to upload the text to the application so that the user can see what they’ve written.

A computer screen shot of a program

Description automatically generatedFigure 23 Goals page text view.

This code shows the user being allowed to save data to the application and when the specific buttons are pressed toast messages will appear.

Figure 24 Goals data loaded.

# Website code

A screenshot of a computer screen

Description automatically generated

This piece of code resembeles the introduction of the website and how it will be laid out. There will be a bit relation to the topic then there will be do’s and do not for the user to see.

Figure 25 Website Introduction

A screenshot of a computer program

Description automatically generated

This is the coded table that has been inserted into the website. This code shows the tables columns and rows and how it shall be laid out. It will be split into different categories for the user to see what is inside the food they eat.

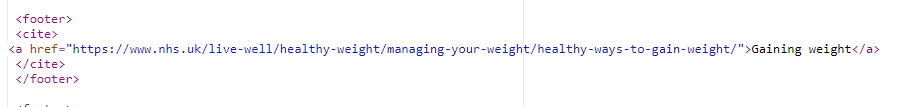
Figure 26 Website table code.

A close-up of a computer screen

Description automatically generated

This code represents the application page of the websites and allows the user to see the picture implemented into the images folder and see the explanation behind it.

Figure 27 Website app pictures.



This shows an example of the references added to the website.

# 

Figure 28 Website references.

# Background Research

When doing my initial research of what information, I wanted to display I first beaded over to the competitors page (myfitnesspal) to get some sort of idea of what I could display onto my website. After looking a taking down some notes I saw that the website was heavily advertising the application. I felt like this may be an issue as of some people are unable to download applications, they are limited to the information being shared. So, I decided that the information that is shared on the application will also be able to see on the website. On the website I have started with the same table that is shown on the application.

I also needed to do some research on fitness in general. As if my website and application is heavily depended on fitness then the correct information needs to be shared. For the nutrition information it was taken from a trusted website called **nutrition value.**

I also done some research on the NHS website as the information that was going to be shared needs to be trustworthy information. As when losing or gaining weight this is very sensitive information and can be harmful. So, the information shown is directly from the NHS. This was my main area to research as they had all the information that I wanted to share.

When thinking about making this project I knew that this would be a sensitive matter as if information shared is wrong this could lead to being very harmful for the users as this may damage their life. On the NHS website there is also a BMI calculator, and the user can use this to help them understand what plan will better suit them.

# Reflection(requirements)

On reflection I believe this project is a good project. I think the application has been made to a good standard and believe that is clear to use. I also think that by having users input and store data within the application is a bonus as there rebecomes a purpose to the application. Also, I think the website is to a high level of detail and the way that the information is laid out is to a good standard. I believe the use of the three different screens us beneficial to the user as they all serve and individual purpose and allow the user to fully engage with the application whilst on the website.

There are some changes that I would add to the application. I would have liked to add a profile page that the user could input their information such as name, age, date of birth and more. I feel like this would tip the application to the next level.

Another change I would make to the application would be that the user can scroll through the page. Currently the user is unable to do so. If this was implemented, I also feel that it would add a good final polish to the application.

Also, I would have liked to add a forgotten password to the login page so that the user can receive an email and reset their password as currently they would have to make a completely new account if the password is forgotten.

Another feature I think that will be good to add to the application is the app being able to recognise a device and allow the users email to be a prompt. This will allow the users login to be quicker.

For the website I would make some changes to the stylesheet that would allow the layout to be in more of a flow than just in a linear layout downwards. I fell if the layout would be in more of a pattern in may engage the user a little bit more.

# Ethical conditions

When considering ethical conditions, we need to go through who the project is aimed for, where it will work, and the security measures implemented.

The project would be suited to the people who are into fitness and want to get fit. This as mentioned previously can refer to losing or gaining weight. The main priority of the website is to ensure that users can learn about their health and wellbeing and make them want to understand more about their body. The application has a purpose for the needs of users want to track what they are doing regarding fitness. Meaning what they are lifting in the gym and what they are eating.

# Evaluation

## Design

I am extremely happy with the outcome of both the application and the website. At the start when planning the project, I felt that the information would be hard to acquire, and a lot of research had to be done. As this information is sensitive information and will need to be information when shared. When creating the application at first, I had struggled with setting up the account system for the users to be able to login. After this was set up the approach of making multiple pages connect to another was also a struggle at times as the applications would crash when wanting to go to another page. I am happy with the way the design of both the application and the website is as these outcomes are both as I pictured them during the original thought process.

A few things I may be considering adding in the future would be a navigation bar at the bottom. This can help the users be able to select what page they want that little a bit easier. Also, the way it is all in the same place may suit individuals better. Another thing that I would change would be adding a settings page this will be where the user may have inputted their personal information for them to see and then they could use the goals page to see if they are on track with their progress.

## Colour Scheme

To start the process the background was just white as the was the default colour. I then decided to change the background colour to grey as I feel like that is the most complimentary colour towards the other buttons and images I wanted to implement. I also feel like the use of the purple around the buttons makes the buttons stand out and complements the grey background well. I originally started with a light blue background, but I felt like the blue and the purple clashed so decided to have the grey instead.

## Development time

Throughout the process of creating the application and the website there were some challenges that I had to face. One of them was the period of completion. With this being the case, I knew I had to start the process of coding quite quickly to make sure that I would be able to make the app fully functional in time for the deadline. The Gannt chart had help me set out the time frame of how much time I should spend on each given task, and this allowed me to follow in good footsteps. The website was the last thing that I attended to start up as I felt like this would be the easier task of the two. After the main bulk of the application was set up the websites CSS and HTML was all sorted ant then that allowed me to insert what I wanted the website to display. I had to start with the design of the website first as then I can add the information and then it would be displayed the way I wanted it to be displayed. I had a previous stylesheet template that I had used before, so I took this and added it onto the new website and changed certain things for it to present the way I wanted it to.

# Critical review

# Appendix 1: meetings

|  |  |  |
| --- | --- | --- |
| Meetings | Dates | What was discussed |
| 1. | 28/11/23 | What I was planning to develop. |
| 2.Viva Meeting | 29/11/23 | Viva Feedback |
| 3. | 5/12/23 | How I was planning to make it.  Software |
| 4. Exchanging emails. | 6/10/23-17/5/24 | Different ideas for my project.  How I can achieve these ideas.  Functionality  Vivas |

# Appendix 2: Questionnaires

A screenshot of a computer

Description automatically generated

# Appendix 3: Source file

App login details

Email:ds984@uni.com

Password:123456

Website

[Dissertation (brighton.domains)](https://ds984.brighton.domains/ci601/index.html)

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