Requirements for the application

# Technical Requirements

As a result of the application being a hybrid mobile, we would need the following

* A separation of the front, middle and backend
* The architecture employed for this would be a three-tier / N – Tier with a client -server Architecture interaction
* The front end will be developed using Xamarin IDE with C# programming language, ASP .NET framework as middleware and azure cloud services for remote database
* Datasets will be employed into the database, which will be normalised using suitable methods researched online combined with python
* Testing methods will be the use of selenium, NUnit and DBfit combined with peer manual tests. I will also use public analytics tools to review my application
* Git control server will be used for the ongoing development of the application
* Include other pieces of software as seen needed and when discovered its necessities

# Other ideas with the application

* I will request peers to evaluate my application using suitable evaluation methods, against industry applications and their personal experience of the app itself.

# Key details with the application

* Person would more likely need internet connection for optimal connection
* The person would use one part of the application to log their diet and another to review their diet

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| **Business Feature Requirements** | **Description** | **Priority** | **Withi** |
| User login | Allow user to login through username and password | High |  |
| User Register Account | Allow the user to register for the system | High |  |
| User logout | Allow the user to leave the application gracefully | High |  |
| View profile | Allow the user to see their details | High |  |
| Modify Account | Allow the user to update their details | High |  |
| Import / Login / Register using an external application | Allow the user to login using details from social media and / or Fitness / Nutrition Apps, such as Facebook or Fitbit | Low |  |
| Simple Navigation UI | Allow the user to access the different parts of the application smoothly | High |  |
| Diet Logging System | Allow the user to log their diet into the application through various ways. | High |  |
| Download logged diet schedule | Allow the capability for the user to download the diet that has been logged. | Medium |  |
| Simple, intuitive Graphical UI | Simple UI to allow the user to log their diet into the application, using buttons and Imagery as opposed to heavy textual information.  This would resort to the user using a search bar to filter out the specific dish they had (such as pepperoni pizza as example).  Once this has been selected, the user would view the default options of food and ingredients are used before having the option to accept, accept and modify or return to search. This would allow the user to input either homemade dishes or take-aways.  This would incorporate the ability to set the fields from previous inputs (reusing dishes) | High |  |
| Template for diet | Allow the user to decide their daily diet as to their needs, such as breakfast, lunch and dinner or brunch, dinner and supper as examples | High |  |
| Scanner for recipe input | Using the camera to scan the barcode to get the ingredients | Medium |  |
| Advisor / Recommender System | System to advise the user based off their inputs | High |  |
| Optimal UI / UX Experience of the advisor system | Use graphs and imagery to assist in advising the user | Medium |  |
| Daily trends | Display the user their daily input and advise on what to do | High |  |
| Display Weekly trends | Display the weekly versions of the daily input and advise on what to do | High |  |
| Display Monthly trends | Display the monthly versions of the daily input and advise on what to do | Medium |  |
| Display Yearly trends | Display the yearly versions of the daily input and advise on what to do | Low |  |
| Breakdown of the nutritional input | Display in lay terms what the user are eating and how it impacts their body | High |  |
| Cater to user goals and macronutrients nutrition deficiencies | Implement different categorical solutions depending on both the goal of the user (ie lose weight) and their nutrition deficiencies (ie celiac) | High |  |
| Suggest alternatives for diet | Provide graphical solutions in areas where diet could improve | Medium |  |
| Colour Scheme | A colouring scheme to alert the user how their diet is | Low |  |
| Effective Diet Scheduler Advise | Advise on how to diet effectively, from the periods of when you eat to how much you eat at each interval | Low |  |
| Notification / Alert System | Notify the user to use the application, whether it is to log their breakfast or to check their dietary analysis | Medium |  |
| Product Label Description UI | Provide a breakdown of how to effectively read the ingredient list of products bought from the shops using Graphical UI | Low |  |
| Food Pyramid Interactive UI | Allow the user to find out key details about proven healthy diets, such as vegetarian, using an interactive food pyramid. This would incorporate a breakdown of what to eat regularly and examples of each (ie vegetables) | Low |  |
| Disclaimer within application | Ensure the user understands the application has not been reviewed for ethical standards and therefore cannot be taken seriously | High |  |
| Temporary storage and usage | Enable the user to access the features without the need for the internet | Low |  |
| Challenge and Reward System | Enable the user to either have computer generated with a goal in mind or allow the user to create one themselves. This would be catered with the advisor system to ensure the user reaches their end goal regarding their nutritional and dietary needs. | Low |  |
| Assistive Technology Systems | This would enable people with various disabilities to be able to use the application, such as the blind people etc. Methods, such as importing the needed system or deriving from them, would be used here | low |  |
| Local activities system | A system that would display the activities in the local area where people of similar dietary interests are involved in | Low |  |

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| View profile | Allow the user to see their details | High | Mandortaory |
| Modify Account | Allow the user to update their details | High | Mandortaory |
| Import / Login / Register using an external application | Allow the user to login using details from social media and / or Fitness / Nutrition Apps, such as Facebook or Fitbit | Low | Out-of-scope |
| Simple Navigation UI | Allow the user to access the different parts of the application smoothly | High | Mandortaory |
| Diet Logging System | Allow the user to log their diet into the application through various ways. | High | Mandortaory |
| Download logged diet schedule | Allow the capability for the user to download the diet that has been logged. | Medium | Optional |
| Simple, intuitive Graphical UI | Simple UI to allow the user to log their diet into the application, using buttons and Imagery as opposed to heavy textual information.  This would resort to the user using a search bar to filter out the specific dish they had (such as pepperoni pizza as example).  Once this has been selected, the user would view the default options of food and ingredients are used before having the option to accept, accept and modify or return to search. This would allow the user to input either homemade dishes or take-aways.  This would incorporate the ability to set the fields from previous inputs (reusing dishes) | High | Mandortaory |
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