

# Nutritional Software Project

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## Introduction

UCOL is a high-performing government funded Institute of Technology & Polytechnic with specialty in Applied Engineering and Trades, Health and Sciences, and Humanities and Business.

Students of the Applied Science (Exercise) and Nursing needed an application to track their intakes, one that utilizes the NZFoodFiles database. With alternatives not being suitable for students, either due to being expensive or outdated, a custom diet tracking application was recommended.

The NZFoodFiles database is maintained and jointly owned by Plant & Food Research and the Ministry of Health.



## Objectives

- ✗ Allow users to view food data from the NZFOODFiles, and the FatSecret API
- ✗ Allow users to log in and enter their daily intake, to view and compare the nutritional information with the recommended guidelines
- ✗ Let users view a daily/weekly summary of their intakes, broken down into each nutrient.
- ✗ Allow them to export summaries in a csv format
- ✗ Let the app calculate the user's nutrient goals, based on recommended guidelines
- ✗ Allow trainers to enter information on behalf of other users who have chosen them as their trainer.

## Methods

**Analysis:** Meetings were held with the project sponsor regarding major features of the application.

**Design:** Standards set by Microsoft for software development were strictly followed, with multiple prototypes tested before proceeding.

**Development:** A fully-featured web application with the NZFoodFiles database was developed, with a single sign-on authentication system

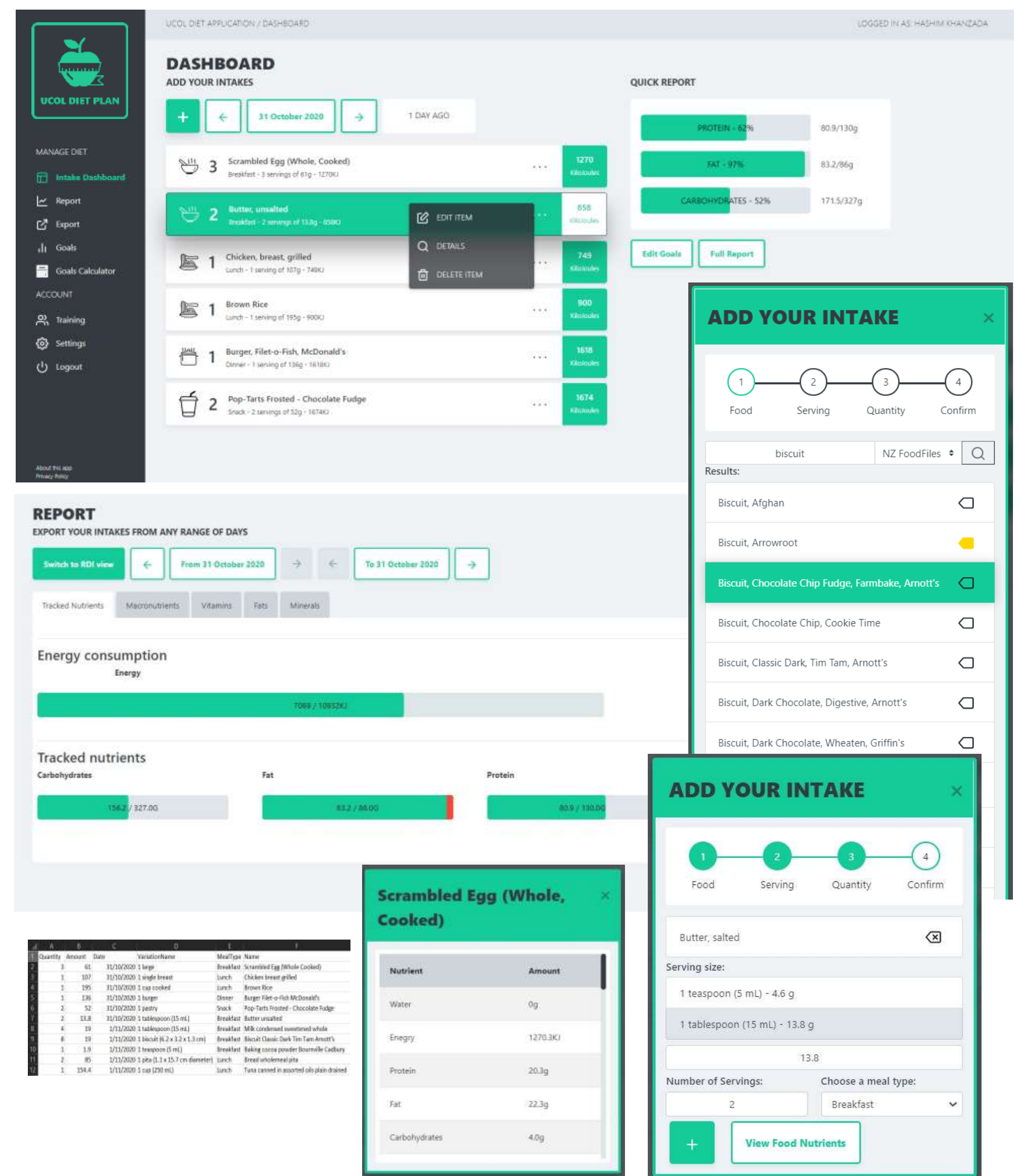
**Testing:** The app was tested extensively, both manually and with automated unit tests. There were also multiple user testing sessions for the app.

**Deployment:** The app was deployed to the UCOL network, with all its documentation given to the client



## Results

The application was successfully deployed to the UCOL network. Results and feedback from the user testing periods were great, and the sponsor was satisfied with the final product.



## Conclusion

The project was a success. Users are able to select any food item from the NZFoodFiles database or the FatSecret API, and retrieve its nutrients. They're able to track their daily intake and compare it with recommended guidelines. They can also view a daily/weekly diet summary, and export their intakes to an excel spreadsheet(.csv).

## Skills and Resources

