

AN ONTOLOGY-BASED RESTAURANT SYSTEM

A REPORT SUBMITTED TO THE UNIVERSITY OF MANCHESTER
FOR THE DEGREE OF BACHELOR OF SCIENCE
IN THE FACULTY OF SCIENCE AND ENGINEERING

2023

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Department of Computer Science

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Word Count: 1626

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Abstract

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A report submitted to The University of Manchester
for the degree of Bachelor of Science, 2023

The aim of the thesis is to ...

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Acknowledgements

I would like to thank...

Chapter 1

Introduction

1.1 Requirements of the ontology

These are the requirements of the ontology so that it can store all the information that I would like it to:

- Ingredient list for every meal on a menu, split into the components of the dish.
- Calorific content of each meal.
- Allergen information for each meal.
- Types of customer e.g. Vegetarians and those with Coeliac disease.

These are possible additions that could be made to the ontology, but are not necessary for the MVP:

- The ability to query a dish with ingredients added or removed.
- The ability to query a dish based on how a dish has been cooked, e.g. Which meals have not used a deep fryer to be made?

The requirements of the user interface for restaurant owner:

- Add and remove meals using ingredients and components list.
- Add and remove ingredients and components, in same page as above and separate.
- Add and remove customer types (dietary requirements and allergens).

- Query the ontology.

Dietary Requirements to filter by:

- Vegetarian
- Pescetarian
- Vegan
-

Allergies[1]:

- Peanut
- Ceoliac (gluten)
- Wheat
- Cow's milk
- Eggs
- Fish
- Shellfish
- Tree nuts
- Soybeans

1.2 Evaluation Plan

To test the ontology system, I plan to conduct user studies, where I will ask people that I know to carry out certain tasks using the system, such as adding or removing a dish from the system, and searching for meals with certain parameters. These tasks will cover each aspect of the functional requirements of the system to completely evaluate how successfully the system meets the criteria.

It is important that the participants of the study are comfortable and give an honest review of the system. To do this, I aim to avoid putting them under any pressures. I will not place them under any time constraints to complete the tasks, and make sure

that when I propose the study to them that the estimation is accurate, while also a slight overestimate. It is also important that the participant doesn't feel any pressure to falsely support the system, when it is in fact failing.

Chapter 2

Background

Chapter 3

Design & Methodology

Chapter 4

Results

Chapter 5

Evaluation

Bibliography

- [1] Wesley Burks, Ricki Helm, Steve Stanley, and Gary A Bannon. Food allergens. *Current opinion in allergy and clinical immunology*, 1(3):243–248, 2001.

Appendix A

Example of operation

An appendix is just like any other chapter, except that it comes after the appendix command in the master file.