

## IMAT3451 FINAL YEAR PROJECT - ETHICAL REVIEW FORM

The University requires all undergraduate final year projects to undergo an ethical review and, where human research ethical issues are identified, to ensure that these issues are addressed.

For the majority of Computing Final Year Projects, the outcome will be either 'No ethical issues' or 'Minor/Major ethical issues which have been addressed'; in these cases approval can be given by the supervisor. In the unlikely event that the outcome is 'Ethical issues that have not been addressed', the completed form will need to be forwarded to the Faculty Research Ethics Committee.

### Student Name

Judyta Dabek

### Programme

Computer Science Bachelor's Degree with Hons

### Project Title

Go Diet

### Brief description of proposed activity and its objectives:

#### **Description:**

The aim of the project is to enable an individual user to use a modern tool allowing recording of its weight and adjusting diet by selecting appropriate recipes that meet certain dietary criteria. The application based on some personal indicators should judge whether a person is classified to go on a diet to reduce weight, or whether the weight is appropriate and there is no need to. In the case where the user should go on a diet, the recipes should be adapted to the special needs of the user. The user should be able to record his weight every day, thanks to which statistics can be produced and predictions can be made for more effective adjustment of dietary recipes and outputted in nice, graphical way.

The software will be running on desktop machine. There are similar applications running on mobiles and other devices, but some users may prefer to make better use of desktop application – on computers. Having many applications can greatly reduce space on mobiles – and can be somewhat limited. Desktop application can be more robust than the mobile one.

#### **Objectives:**

1. Deliver a model assessing if a user should go on a diet or not using classification algorithm.
2. To explore machine learning algorithms and deliver practical feature in form of graphical way for outputting collected by the user data (progress in weight loss) using potentially Python libraries for data visualisation.
3. To explore machine learning algorithms and deliver a prediction modelling which will allow to adjust recipes based on number of calories etc for everyday meals.
4. Deliver a feature enabling printing selected recipes to PDF file
5. Deliver databases containing recipes, data needed for classification and prediction
6. Deliver accurate, concise documentation.

**Ethical Issues Identified:**  
(see overleaf)

Very minor ethical issues could be potentially identified regarding mostly the way classification and predictive modelling will be designed.

If any ready-to-use database containing data for prediction will be used then it might be related to if the project will be allowed to use this data.

**How these will be addressed:**

Probably the modelling will be based on scientific statistics regarding the healthy lifestyle. There are many free sources on the Internet which will allow to create modelling without a need to collect data from the users. Eventually any of the ready databases containing outcome of research may be used if found. If not then modelling will be based on general common and published knowledge regarding this topic, including creating data as predicted from scratch to satisfy needs of this modelling.

## Checklist

Has the project proposal identified any of the following research procedures?

- |  |     |
|--|-----|
| 1. Gathering information about human beings through: Interviewing, Surveying, Questionnaires, Observation of human behaviour   | Yes |
| 2. Using archived data in which individuals are identifiable   | No  |
| 3. Researching into illegal activities, activities at the margins of the law or activities that have a risk of personal injury | No  |
| 4. Supporting innovation that might impact on human behaviour<br>e.g. Behavioural Studies                                      | No  |

**If 'Yes' to any of 1-4 above: have you considered the following?**

- ✓ Providing participants with full details of the objectives of the research
- ✓ Providing information appropriate for those whose first language is not English
- ✓ Voluntary participation with informed consent
- ✓ Written description of involvement
- ✓ Freedom to withdraw
- ✓ Keeping appropriate records
- ✓ Signed acknowledgement and understanding by participants
- ✓ Consideration of relevant codes of conduct/guidelines

### Ethical Review Outcome

- ☐ 1. No ethical issues
- ☒ 2. Minor ethical issues which have been addressed and concerns resolved
- ☐ 3. Major ethical issues which have been addressed and concerns resolved
- ☐ 4. Ethical issues that have not been resolved/addressed

### Authorisation

*If the outcome is no. 3 or 4 above, this form should be forwarded to the Faculty Research Ethics Committee.*

Signature of student      Judyta Dabek \_\_\_\_\_ Date 19/10/2018 \_\_\_\_\_

Signature of supervisor      \_\_\_\_\_ Date \_\_\_\_\_