**Elicitation Report of Image based Food size and Calorie Estimation**

**Team: Mystic-gang**

# Question 1: They asked about the main purpose of the project

Response: Main project scope is to identify the food name from images. After identifying it we calculate the calories of the food, for this user should give the quantity of the food in grams. We maintain the food calories per gram in database. We will be training 10 food items dataset with CNN algorithm.

# Question 2: Stakeholders questioned about the dataset

Response: Dataset we are taking of Food-10, from the following link we have downloaded the dataset. The dataset consists of 101 food item images. Each of food item categories consists of more than 1000 images. We are taking the 10 food items of images because of memory management.

<https://www.kaggle.com/kmader/food41>

# Question 3: They asked about login of the application and asked about the software requirements

We told we are developing a login for every user and coming to software requirements as we already mentioned we are using PyQt5 for front end development and we are using VS Code IDE.

# Question 4: Stakeholders asked who the end users are for this application

The end users can be anyone who is concerned about his calorie intake and we think almost everyone is worried about this. Practically speaking this application is for everyone and on the top of this our application is very easy to use, and it helps almost everyone who is concerned about their calorie intake.

# Question 5: They asked that how many food items are we going to train with CNN

We selected few food items like beignets, French fries, Rice, Macaroons, Pancakes which are most common items that people consume and we said we started training the data. And the data is collected from the dataset each item contains 1000 pictures we are thinking of training ten food items because of memory management issues.

**Question 6: They asked whether the calorie estimation is going to be accurate or not.**

This is one of the challenging parts of our project. The calorie estimation may differ because it has several factors, we may not be accurate, but we’ll be saying upper bound and lower bound of the calories. Calorie estimation mostly depends on the simple calculation which requires food item name and grams of the food. The main motive of our project is to find the food item by image. **Suggestions:**

The first suggestion is that make an accurate calculation of calories from the food item because the project mainly depends on the food calories.

Status: Accepted

As I mentioned in the Question 6, Calorie estimation depends on several aspects we will be working more and will be doing research about the food items we’re going to train and possibly We’re going to get accurate calorie estimation. We’ll train the CNN and add more data for better accuracy and also try new model architectures to improve accuracy. We’ll also train the CNN for longer periods and train more complex/deeper models. We’ll also be augmenting data for better accuracy.

One of suggestion is to get the item name correctly with all resolutions of the image they said that some images can’t be recognized if the resolution is less

Status: Accepted

Yes, we are going increase more filters in CNN to get the perfect output of the food. We can also use high resolution image reconstruction using Deep CNN for better resolutions but this quite complex but we’ll try our best to implement this in our project.

The last suggestion is to get the correct output of the food which are alike, for example chicken and lamb items are mostly similar and their textures are also very similar which in turn makes it very difficult to tell the difference.

Status: Rejected

To identify both items which look alike we may need some other inputs to be consider even a common eye cannot find the difference some time whether it is chicken or lamb without considering other factors, but we’ll absolutely try to increase filters and textures to get the correct output.

Totally this meeting was productive and learnt a lot from the stakeholders and had a good suggestion from them.