

CS400x4 Individual Member Project Proposal

Ron Yang

November 2019

1 Title

Macro Calculator

2 Problem

People are always confused how much food they need to take everyday and how much exact calories they need.

My program will give them a concise value of calories they need, predicated on their plan(gaining or losing) and their information(height, weight, etc.)

3 Primary stakeholder

All people who want to have a diet plan will use our program. College students who want to lose weight, or gain muscle will use our program.

The users will get a feedback on how much calories they need to input everyday so that they can reach a specific weight after a while. Knowing the exact calories, the users will know what they can not have, what and how much they can have. They will achieve their purpose more quickly and precisely than before. Even though they didn't follow the calories given, they should know the reason why they fails losing or gaining weight.

4 Graphical User interface

A hand-drawn graphical user interface on lined paper. It is enclosed in a rectangular border. At the top, it says "Basic Information". Below this, there are input fields for "Age: _____", "Height: _____ cm", "Weight: _____ kg", and a gender selection with two boxes labeled "Male" and "Female". The "Male" box is checked. Below the "Basic Information" section is the "Daily Exercise" section. It includes a line for "Your job: _____", a line for "exercise level: sedentary, moderate, intensive" (with "sedentary" crossed out), and a line for "Goal: LOSE / GAIN". Below these is a button labeled "CALCULATE!". At the bottom, it says "You should take" followed by an empty rectangular box.

The users are expected to input their age, height, weight and select their gender. Then the users are also expected to input their job and select their exercise level, goal.

Finally, once the user click the button "CALCULATE!", the exact value of calories will show at the bottom. (If any of those inputs are empty, it will show 0 at the bottom)

5 Data

Data type: Integer, String, Double

Abstract data type: Person, Job

Example:

Person a, age: 20, height: 180.3, weight: 80, gender: male, job : student,
intensive level: sedentary, goal: losing weight

```
Person a = new Person();
```

```
Person {
```

```
int age = 20;
```

```
double height = 180.3;
```

```
double weight = 80.0;
```

```
String gender = "male";
```

```
Job j = new Job();
```

```
String goal = "LOSE";
```

```
}
```

```
Job{
```

```
String name = "student";
```

```
String level = "sedentary";
```

```
}
```