



Introduction to Computer Science for Engineers

Apples and Oranges

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Often you can hear someone say: “You cannot compare apples and oranges!” But... “Why not?!”, you may ask yourself.

In this assignment you will make exactly this possible: comparing apples and oranges. For the sake of completeness we will even add cookie dough and possibly other food. All these types of food can be represented by it’s own class, deriving from `Food`.

Each object has a defined quantifier (e.g. 3 apples, 200g of cookie dough). This can be either the number of elements, the weight of the food or something completely different. We use this quantifier to calculate the amount of calories and the weight.

1. Implement the missing methods for `Apples`, `Oranges` and `CookieDough`. Use the information from the table below to calculate the `calories` and `weight`:

Class	Quantifier	calories	weight
Apples	amount	<code>102 * amount</code>	<code>200 * amount</code>
Oranges	amount	<code>94 * amount</code>	<code>200 * amount</code>
CookieDough	weight	<code>int(2.44 * weight)</code>	<code>weight</code>

The quantifier should be initialized in the `__init__` method and stored for each object.

2. Add at least 2 more types of food. Implement the `calories` and `get_weight` methods.
3. Implement the `__eq__` and `__lt__` methods for `Food` to compare the given food by `calories`.
4. Show examples in your script.

Hint

- All weights are stored in `g` and all calories are stored in `kcal`.



Template files

Get all files in an archive `templates.zip` or `templates.tgz`.

`food.py`

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