

Executive Summary for Group Number: 049

Our GitHub repository link.

GitHub Repository URL: <https://github.com/NickBland/2810ICT-milestone-2.git>

1. Food Search

Description

The Food Search feature allows users to quickly find comprehensive nutritional information about specific food items. Users enter the food name, and the system retrieves all relevant nutritional data.

The functionality of this feature works by comparing the string the user enters in the input box to the data within the 'food' column of our data frame, returning any entries that match the query, and updating the data frame that we display.

(This feature is accomplished through the use of pandas and str.contains())

Steps

1. The User begins typing in the input box (Search).
2. The program compares the string entered in the input box to strings in the 'food' column and returns a newly updated data frame.
3. The list of food has now shrunk and narrowed down to meet the users search input.

Screenshots

'User enters the input "cheese", and the food list has updated to match.'

SearchFoodComparison

food

cream cheese
neufchatel cheese
ricotta cheese
cream cheese low fat
cream cheese fat free
gruyere cheese
cheddar cheese
parmesan cheese
romano cheese
parmesan cheese grated
port salut cheese
swiss cheese
goat cheese hard
gouda cheese
pepper jack cheese lucerne
caraway cheese
gjetost cheese
tilsit cheese
goat cheese
brick cheese
asadero cheese
camembert cheese
provolone cheese reduced fat
roquefort cheese
queso blanco cheese
queso seco cheese
goat cheese soft
mozzarella cheese
chihuahua cheese
limburger cheese

Search

cheese

Filters

Nutrients:

Caloric Value

Nutrient Range:

Min

 -

Max

Nutritional Level:

Protein

N/A

Carbohydrates

N/A

Fat

N/A

Sugar

N/A

Nutritional density

N/A

Currently Selected:

No Food Selected

SearchReset

Add to ComparisonExit

'User enters the input: "meat", and the food list has updated to match.'

SearchFoodComparison

food

spaghetti with meat sauce
pasta with meatballs in tomato sauce
spaghetti with meatballs
meat ravioli canned
meat vegetable pizza
coconut meat dried
coconut meat
lamb meat cooked
meat extender
lamb meat raw
veal meat cooked
beef meat canned
beef mince meat asda
veal meat raw
beef luncheon meat jellied
luncheon meat beef
luncheon meat pork beef
goat meat raw
pork meat cooked
pork meat raw
pheasant meat raw
turkey taco meat cooked
chicken meat raw
duck meat cooked
quail meat cooked
goose meat cooked
duck meat raw
squab meat raw
turkey meat roasted
goose meat raw

Search

meat

Filters

Nutrients:

Caloric Value

Nutrient Range:

Min

 -

Max

Nutritional Level:

Protein

N/A

Carbohydrates

N/A

Fat

N/A

Sugar

N/A

Nutritional density

N/A

Currently Selected:

No Food Selected

SearchReset

Add to ComparisonExit

2. Nutrition Breakdown

Description

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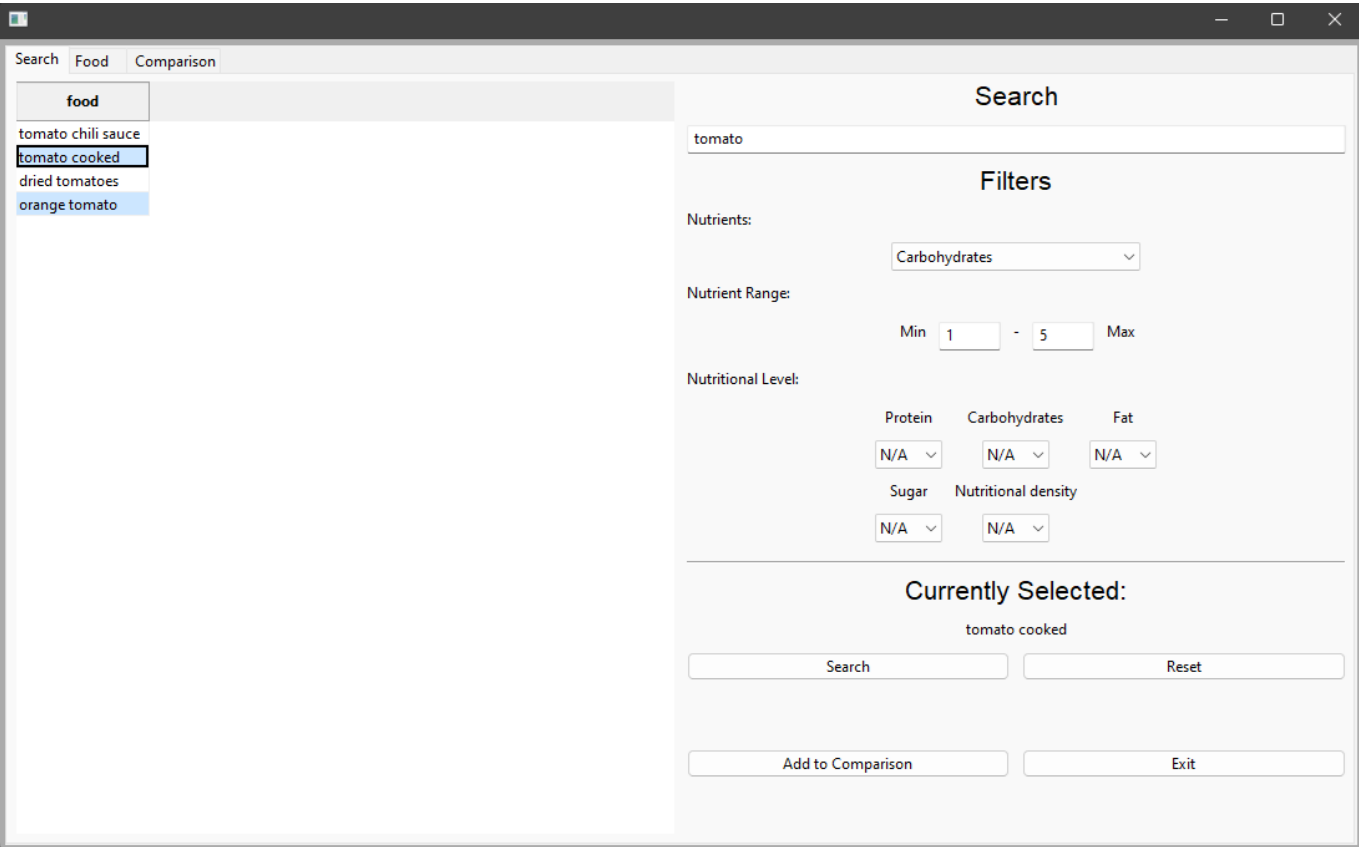
The Nutrition Breakdown allows users to select a food item and generate visualisations such as pie charts and bar graphs which will show the breakdown of different nutrients.

Steps

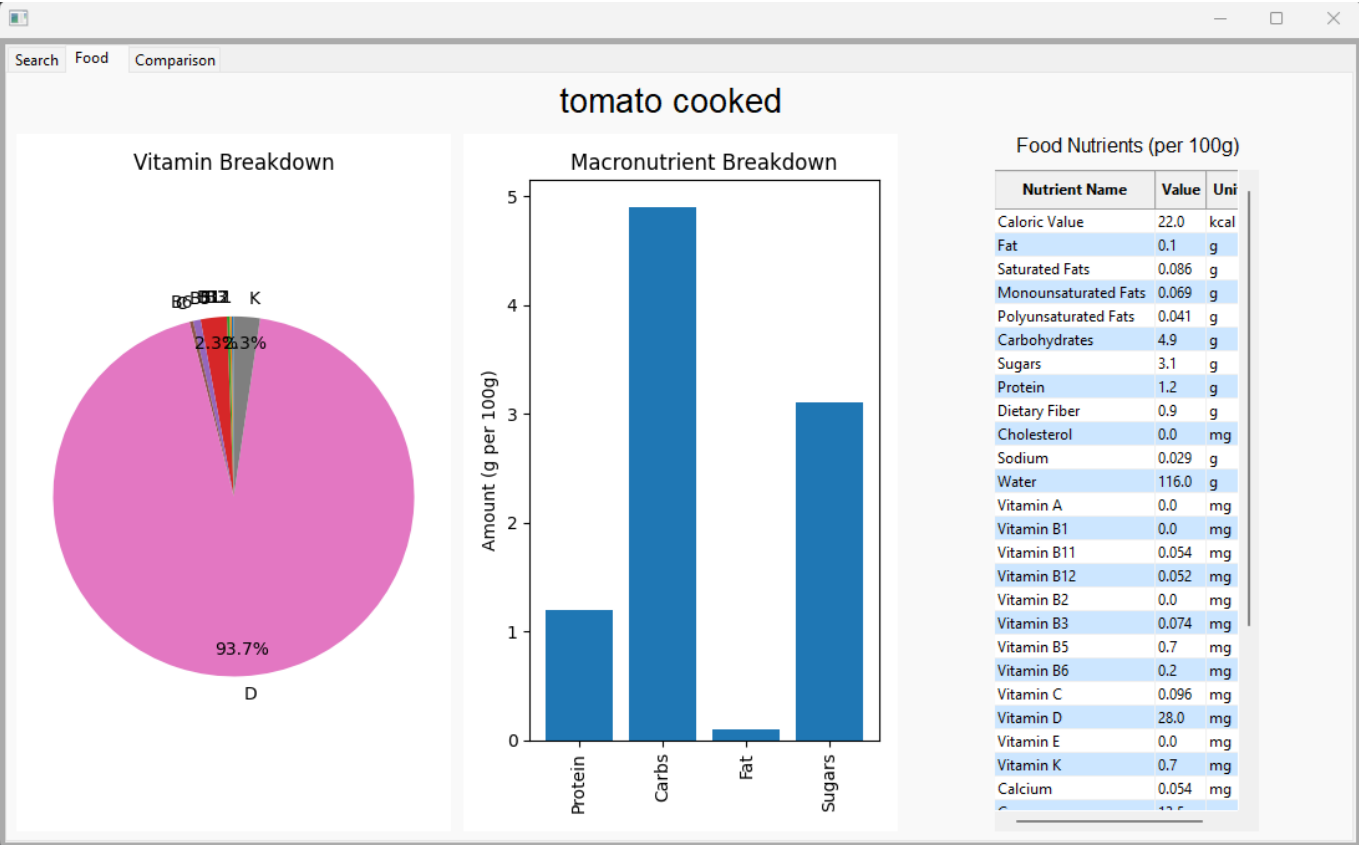
- 1. Begin typing the name of the food item in the search bar.
- 2. When the desired item appears in the list, double-click on it to select.
- 3. Click the "Food" tab to view the pie charts and bar graphs of the selected foods on the left and middle of the page.

Screenshots

Screenshots for each step demonstrating the use of the Nutrition Breakdown. [Step 1]



[Step 2]



3. Nutrition Range Filter

Description

The system shall allow users to select a nutritional category (eg protein or fat) and specify a range (minimum and maximum values). The tool then displays foods that fall within the selected range.

Steps

1. Select the type of nutrients.
2. Type the Min and Max range of the nutrients.
3. The foods that fit within the nutrients range will appear on the left-hand side of the page.

Screenshots

Screenshots for each step demonstrating the use of the Nutrition Range Filter.

[Step 1]

SearchFoodComparison

food

cream cheese
neufchatel cheese
requiejao cremoso light catupiry
ricotta cheese
cream cheese low fat
cream cheese fat free
gruyere cheese
cheddar cheese
parmesan cheese
romano cheese
parmesan cheese grated
port salut cheese
swiss cheese
goat cheese hard
gouda cheese
pepper jack cheese lucerne
caraway cheese
gjetost cheese
tilsit cheese
goat cheese
brick cheese
asadero cheese
camembert cheese
provolone cheese reduced fat
roquefort cheese
queso blanco cheese
queso seco cheese

Search

Enter keywords

Filters

Nutrients:

Protein

Nutrient Range:

Min

 -

Max

Nutritional Level:

Protein

N/A

Carbohydrates

N/A

Fat

N/A

Sugar

N/A

Nutritional density

N/A

Currently Selected:

tomato cooked

Search

Reset

Add to Comparison

Exit

[Step 2]

SearchFoodComparison

food

asadero cheese
provolone cheese reduced fat
chihuahua cheese
mexican cheese
anejo cheese
bagel with ham egg cheese
quesadilla with chicken
burrito with beans beef
chicken sandwich with cheese
turkey pot pie
chicken crispy breast kentucky fried chicken
premium grilled chicken classic sandwich mcdonalds
big n tasty with cheese mcdonalds
premium crispy chicken classic sandwich mcdonalds
quarter pounder with cheese mcdonalds
big mac mcdonalds
sandwich with roast beef
sandwich with tuna salad
sucker raw
haddock cooked
swordfish raw
salt mackerel
sturgeon cooked
catfish cooked
sucker cooked
shrimp canned
alaska king crab cooked

Search

Enter keywords

Filters

Nutrients:

Protein

Nutrient Range:

Min

 25 - 30

Max

Nutritional Level:

Protein

N/A

Carbohydrates

N/A

Fat

N/A

Sugar

N/A

Nutritional density

N/A

Currently Selected:

tomato cooked

Search

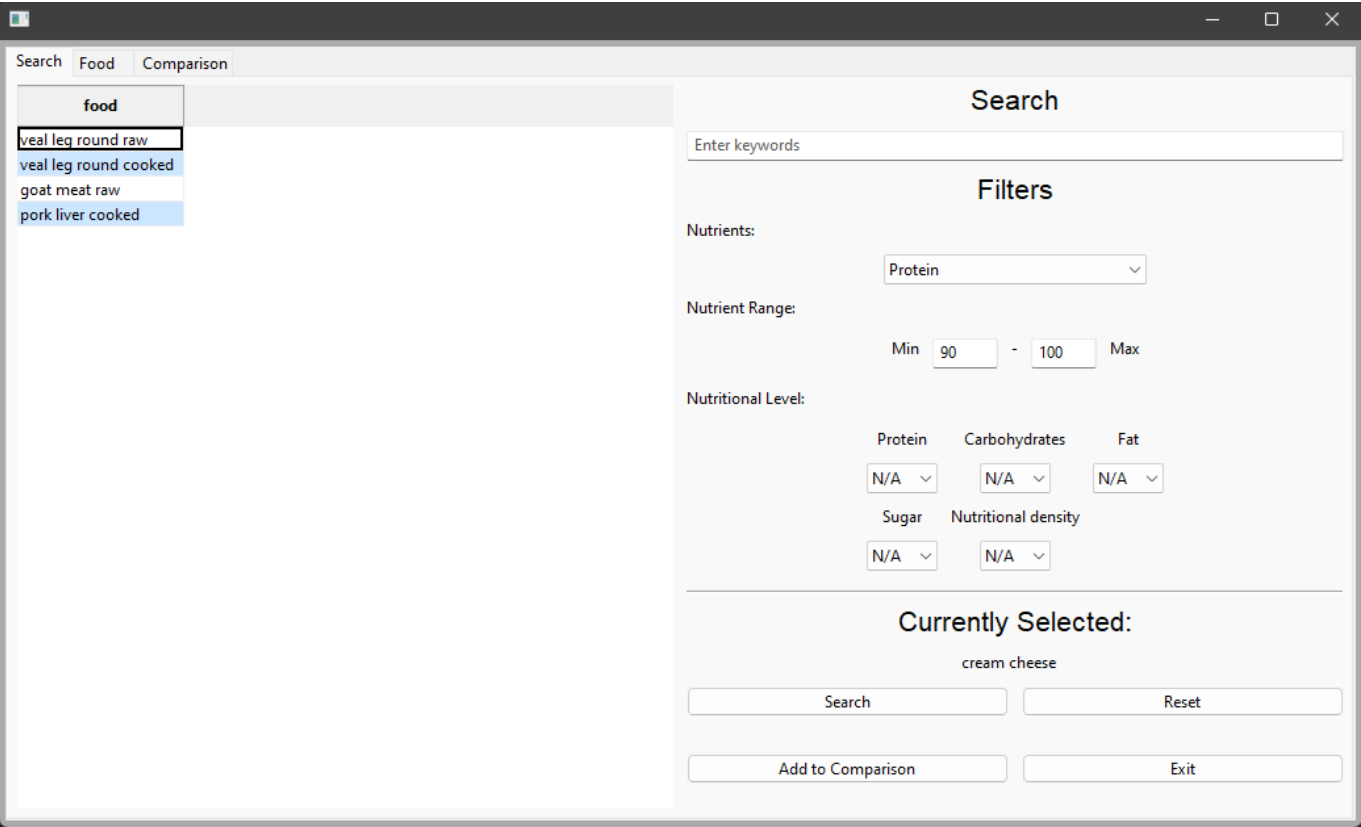
Reset

Add to Comparison

Exit

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[Step 3]



4. Nutrition Level Filter

Description

The system allows users to filter foods based on predefined nutritional levels (low, mid, high) for specific nutrients, including fat, protein, carbohydrates, sugar, and nutritional density.

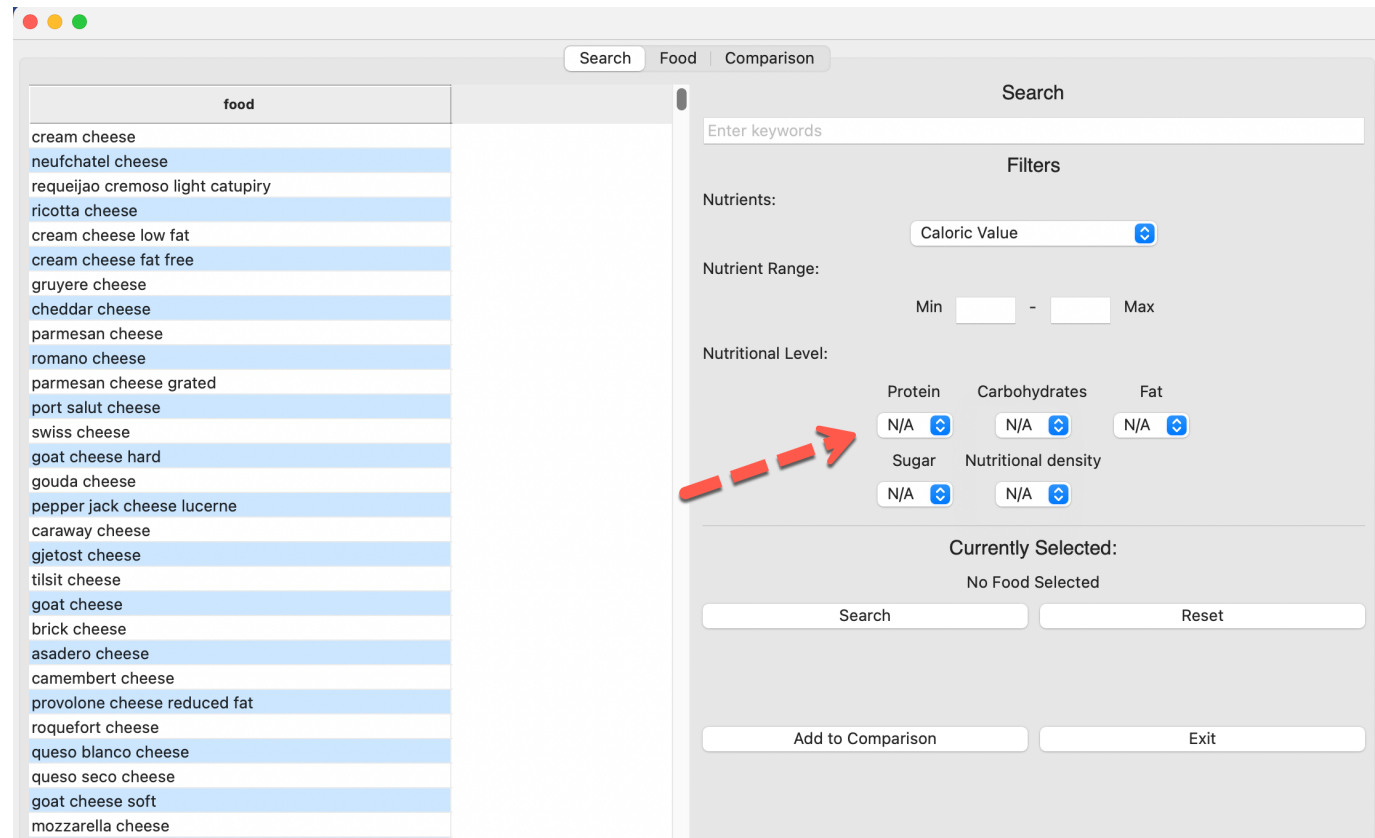
Steps

1. Just click on the nutrition desired to filter by and select (Low, Mid or High).
2. All results will appear on the left-hand side of the screen.

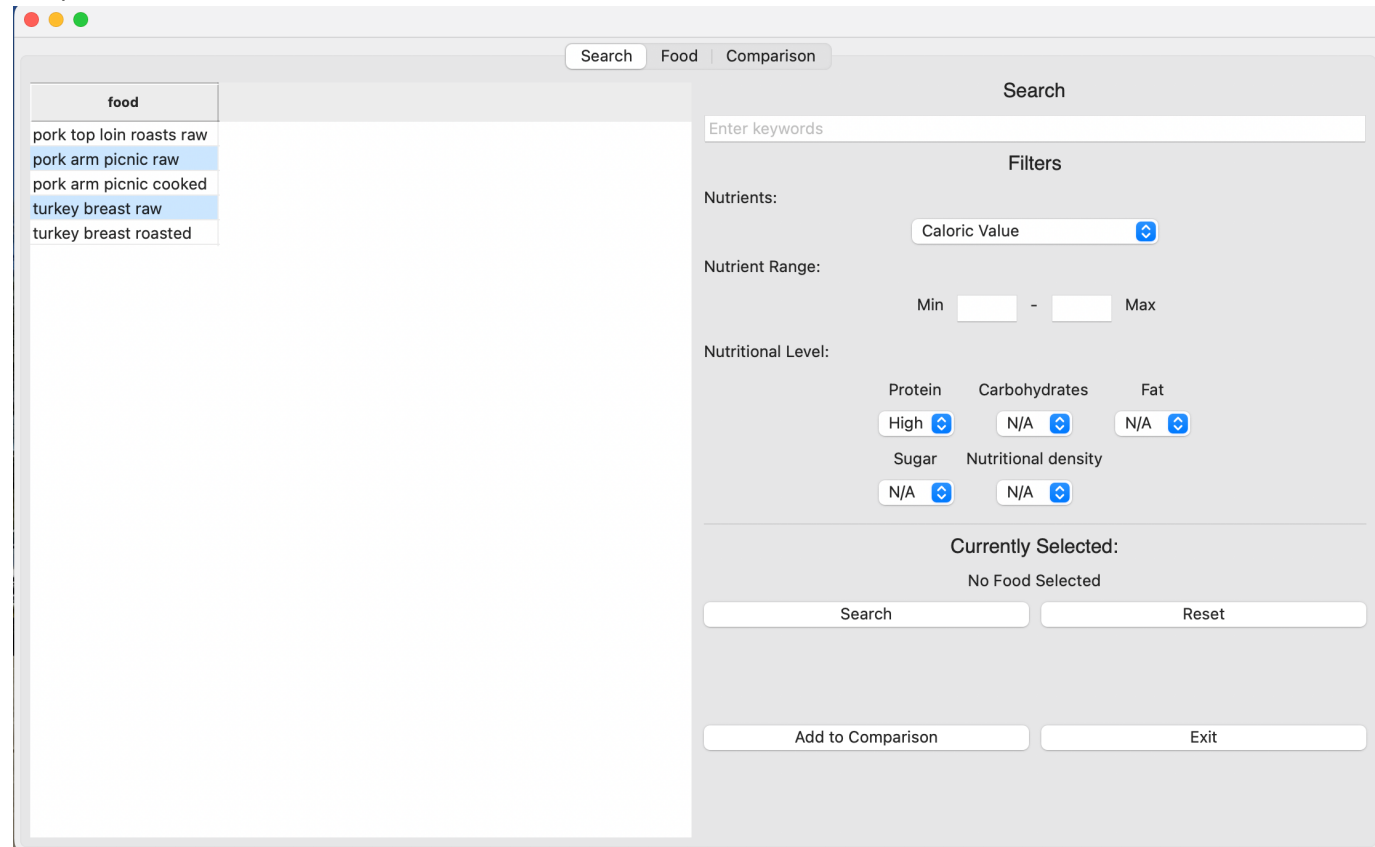
Screenshots

Screenshots for each step demonstrating the use of the Nutrition Level Filter.

[Step 1]



[Step 2]



5. food comparison

Description

The system allows users to select multiple foods and generate side by side comparisons of their nutritional content.

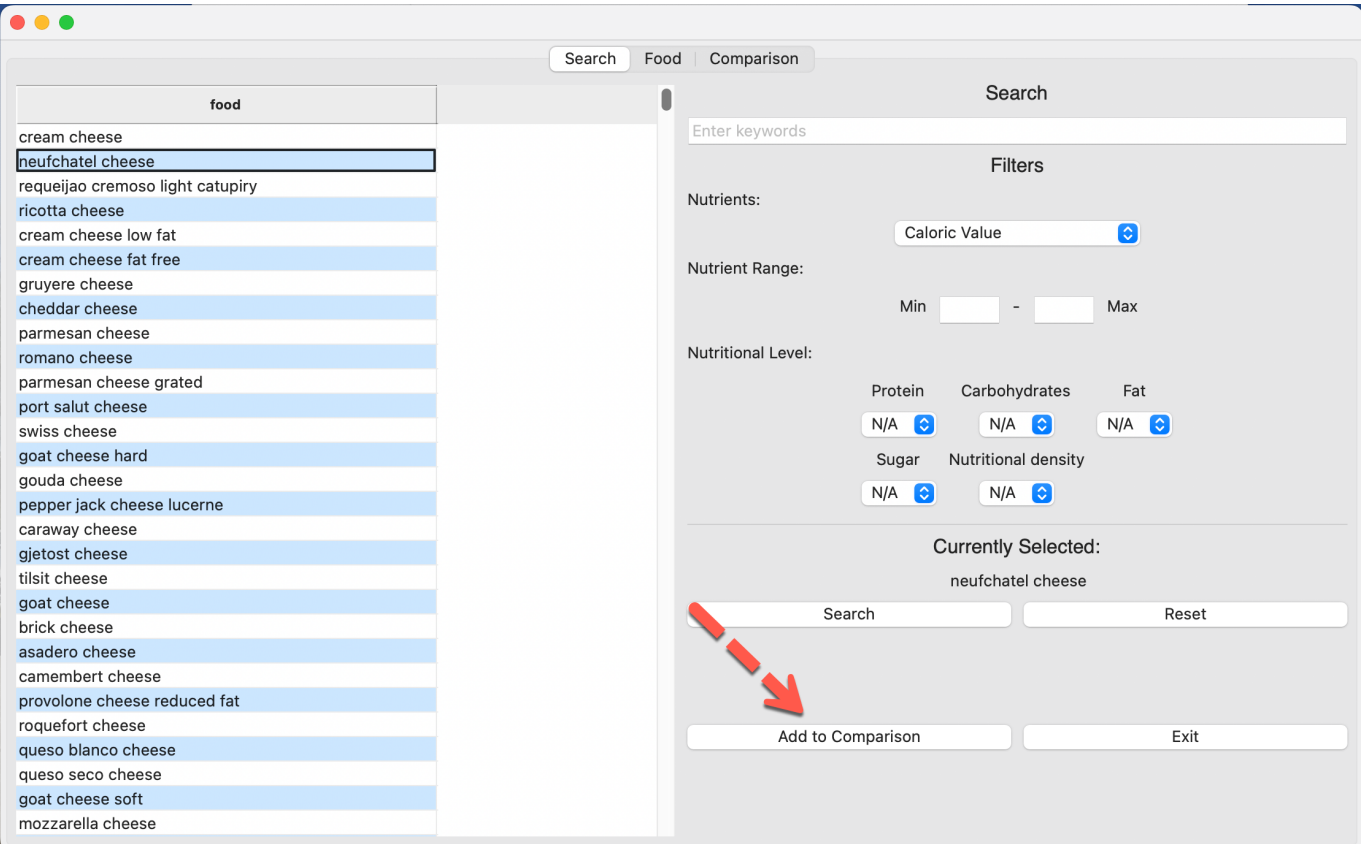
Steps

- 1. Double-click the first food you want to compare then click Add to comparison.
- 2. Then do the same for the second food you want to compare.
- 3. Next press the comparison tab to see the nutritional comparison.
- 4. You can also click the Micro-nutrients and the Macro-nutrients to see graphs of the Micro-nutrients and the Macro-nutrients.

Screenshots

Screenshots for each step demonstrating the use of the Food Comparison tool.

[Step 1]



[Step 2]

SearchFoodComparison

food

cream cheese
neufchatel cheese
requeijao cremoso light catupiry
ricotta cheese
cream cheese low fat
cream cheese fat free
gruyere cheese
cheddar cheese
parmesan cheese
romano cheese
parmesan cheese grated
port salut cheese
swiss cheese
goat cheese hard
gouda cheese
pepper jack cheese lucerne
caraway cheese
gjetost cheese
tilsit cheese
goat cheese
brick cheese
asadero cheese
camembert cheese
provolone cheese reduced fat
roquefort cheese
queso blanco cheese
queso seco cheese
goat cheese soft
mozzarella cheese

Search

Enter keywords

Filters

Nutrients:

Caloric Value

Nutrient Range:

Min-Max

Nutritional Level:

Protein

N/A

Carbohydrates

N/A

Fat

N/A

Sugar

N/A

Nutritional density

N/A

Currently Selected:

cream cheese

SearchReset

Remove from ComparisonExit

[Step 3]

SearchFoodComparison

Compare Two Foods

neufchatel cheese

cream cheese

Nutritional Information

Micronutrients

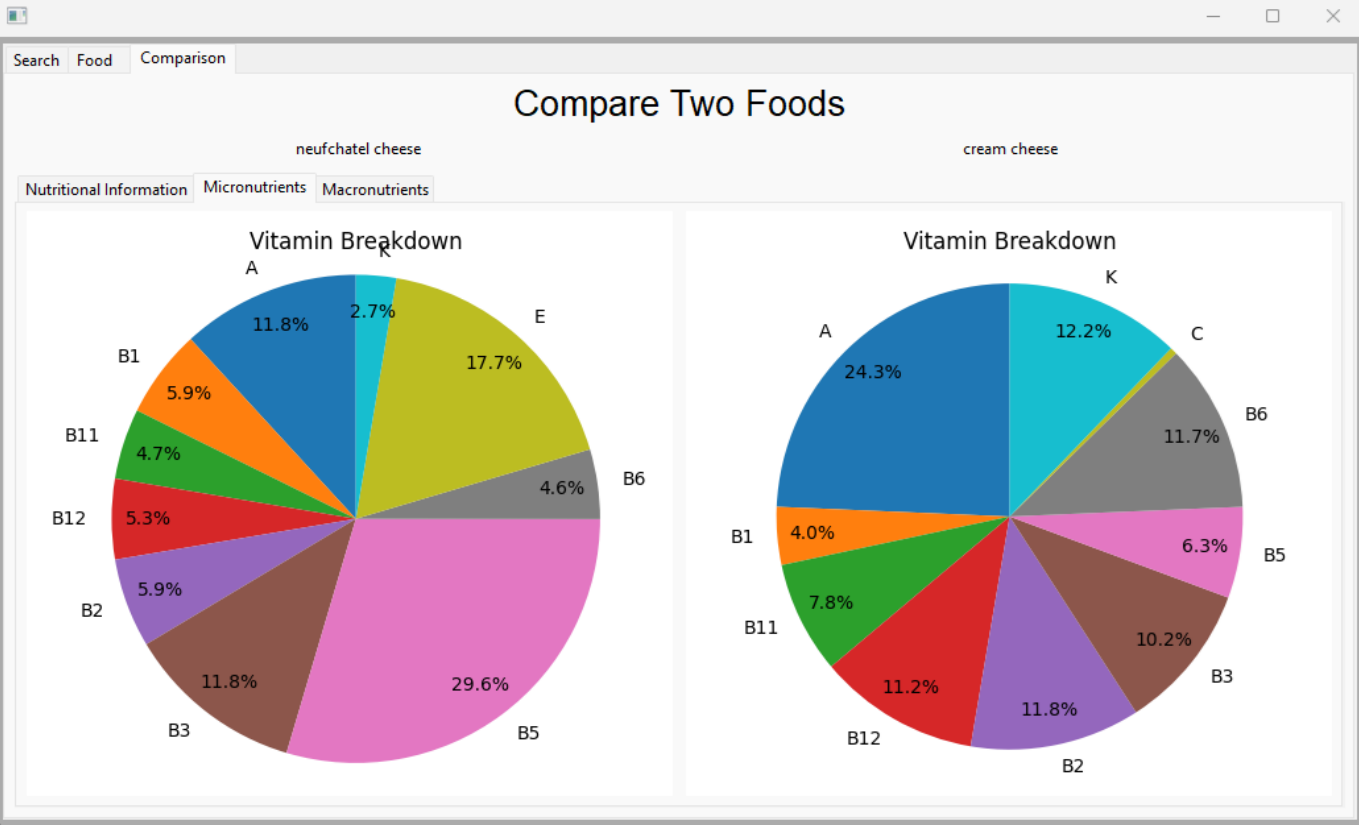
Macronutrients

Nutrient Name	Value	Unit
Caloric Value	215.0	kcal
Fat	19.4	g
Saturated Fats	10.9	g
Monounsaturated Fats	4.9	g
Polyunsaturated Fats	0.8	g
Carbohydrates	3.1	g
Sugars	2.7	g
Protein	7.8	g
Dietary Fiber	0.0	g
Cholesterol	62.9	mg
Sodium	0.3	g
Water	53.6	g
Vitamin A	0.2	mg
Vitamin B1	0.099	mg
Vitamin B11	0.079	mg
Vitamin B12	0.09	mg
Vitamin B2	0.1	mg
Vitamin B3	0.2	mg
Vitamin B5	0.5	mg
Vitamin B6	0.078	mg
Vitamin C	0.0	mg
Vitamin D	0.0	mg

Nutrient Name	Value	Unit
Caloric Value	51.0	kcal
Fat	5.0	g
Saturated Fats	2.9	g
Monounsaturated Fats	1.3	g
Polyunsaturated Fats	0.2	g
Carbohydrates	0.8	g
Sugars	0.5	g
Protein	0.9	g
Dietary Fiber	0.0	g
Cholesterol	14.6	mg
Sodium	0.016	g
Water	7.6	g
Vitamin A	0.2	mg
Vitamin B1	0.033	mg
Vitamin B11	0.064	mg
Vitamin B12	0.092	mg
Vitamin B2	0.097	mg
Vitamin B3	0.084	mg
Vitamin B5	0.052	mg
Vitamin B6	0.096	mg
Vitamin C	0.004	mg
Vitamin D	0.0	mg

[Step 4]

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[Step 5]

