

Executive Summary

GitHub Repository URL: https://github.com/kisangkay/Milestone2_Group62.git

1. Food Search

Description

The Food Search feature helps the users to quickly and easily obtain nutritional data on certain food products from the Nutritional Food Database. When users enter the name or kind of food they're looking for, the system will provide pertinent results, showing important nutritional information and letting them refine their search further depending on dietary levels.

Steps

1. Use the Food Search Function:

- i. Navigate to the application's main menu.
- ii. Click on the "Food Search" option to launch the search screen.

2. Enter in the food item:

Enter the name or category of the food you want to look for (for example, "cheese," "chicken," or "salad") in the search field.

3. Start the Search:

To run the search query, click the "Search" button.

4. View the results of your search:

Relevant data for every food item will be shown in a list or grid style as a consequence of the results, including:

- i. Name of Food
- ii. Nutrition Names

iii. Nutrition Density

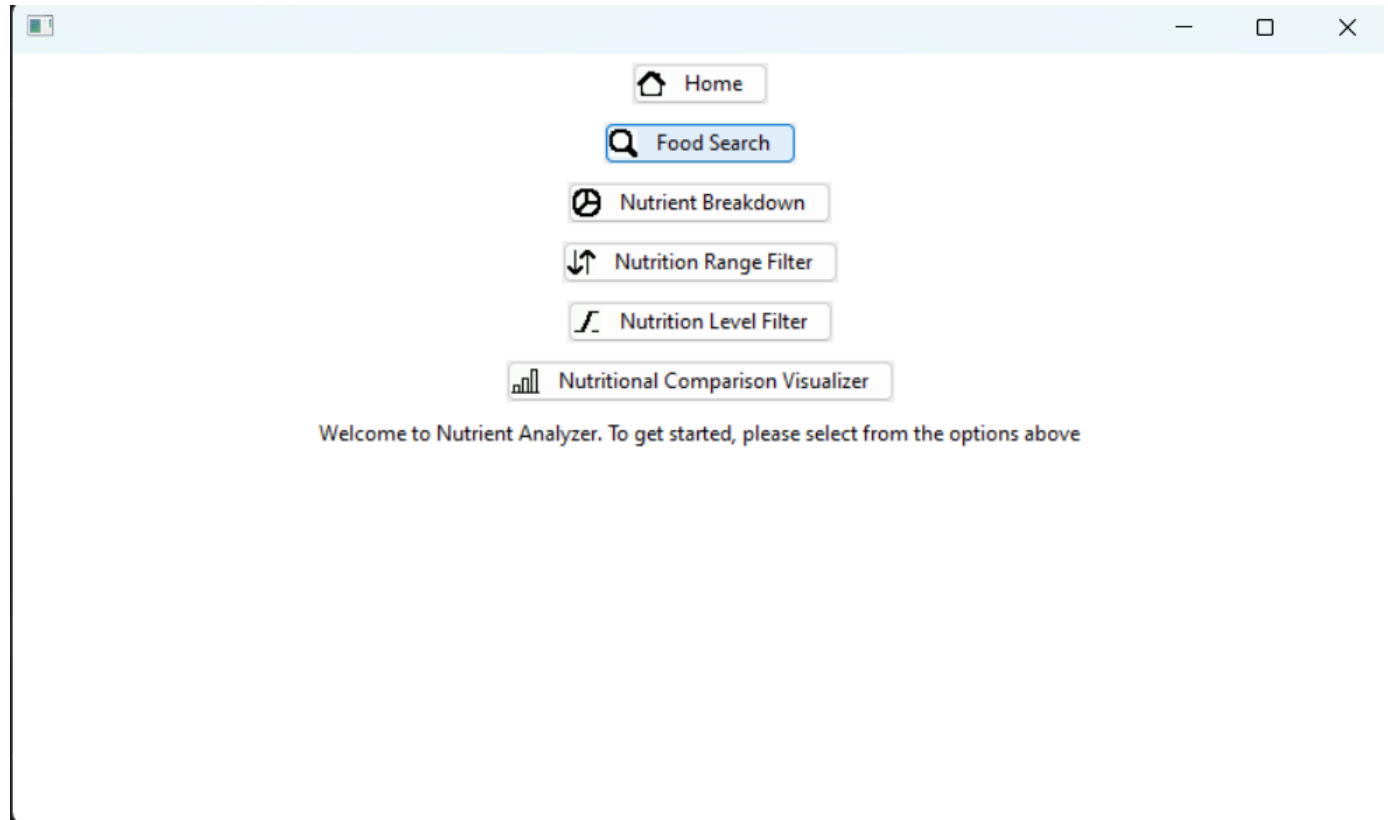
iv. Protein, Fat, and Carbohydrate and more Nutritional Values

5. Exit the Feature:

After finishing searching, click the Close button to exit the Food Search interface.

Screenshots

1. Navigate the Food Search Function:



2. Enter in the food Name:

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Enter a food name to view its nutritional details

Food Name:

	Food Name	Nutrition value 1	Nutrition value 2	Nutrition value 3	Nutrition value 4
1					
2					
3					
4					
5					

3. Start the Search:

×

Enter a food name to view its nutritional details

Food Name:

	Food Name	Nutrition value 1	Nutrition value 2	Nutrition value 3	Nutrition value 4
1					
2					
3					
4					
5					

4. View the results of the search:

×

Enter a food name to view its nutritional details

Food Name:

	food	Caloric Value	Fat	Saturated Fats	Monounsaturated Fats	Polyunsaturated Fat
1	cream cheese	51	5.0	2.9	1.3	0.2
2	neufchatel cheese	215	19.4	10.9	4.9	0.8
3	ricotta cheese	30	2.0	1.3	0.5	0.002
4	cream cheese low fat	30	2.3	1.4	0.6	0.042
5	cream cheese fat free	19	0.2	0.1	0.091	0.075
6	gruyere cheese	116	9.1	5.3	2.8	0.5
7	cheddar cheese	113	9.3	5.3	2.6	0.3
8	parmesan cheese	71	4.5	2.7	1.4	0.1
9	romano cheese	19	1.3	0.9	0.4	0.035
10	parmesan cheese grated	21	1.4	0.8	0.4	0.036
11	port salut cheese	465	37.2	22.0	12.3	1.0
12	swiss cheese	98	7.7	4.6	2.0	0.3
13	goat cheese hard	128	10.1	7.0	2.3	0.2
14	gouda cheese	100	7.7	4.9	2.2	0.2
15	pepper jack cheese lucerne	75	6.0	4.0	0.0	0.0
16	caraway cheese	106	8.3	5.3	2.3	0.2
17	ricotta cheese	1050	67.0	42.5	17.0	2.1

5. Exit the Feature:

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Home

Food Search

Nutrient Breakdown

Nutrition Range Filter

Nutrition Level Filter

Nutritional Comparison Visualizer

Welcome to Nutrient Analyzer. To get started, please select from the options above

2. Nutrition Breakdown

Description

Users may choose a food item from the database and explore comprehensive graphical representations of its nutritional value by using the Nutrition Breakdown function. To see the ratios of different nutrients, including carbs, proteins, fats, vitamins, and minerals, this tool offers both pie charts and bar graphs.

Steps

1. Select nutrient Breakdown Option:

Go to the main menu or select the Nutrition Breakdown function.

2. Choose a Food item:

- i. All the Food Names shown in the list view.
- ii. To view the food item's complete nutritional information, click on it.

3. View the breakdown of nutrients:

- i. The selection of a food shows the nutritional breakdown in Pie Chart.
- ii. The quantities of macronutrients like Caloric Value, Protein, Fats, and Saturated Fats are displayed in a pie chart.

4. Go back to select another food:

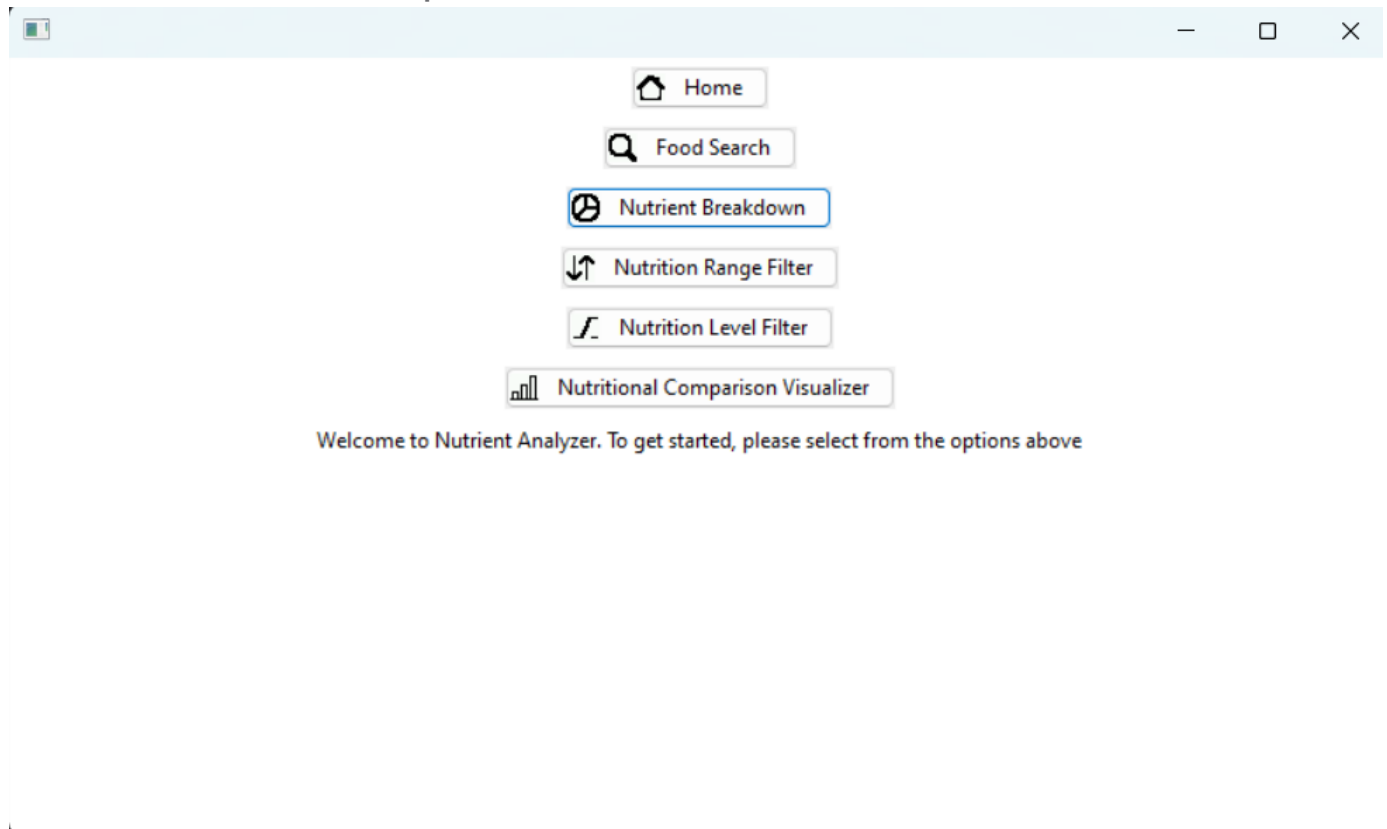
Click another food from Food List to choose a different food item after examining the nutritional information.

5. Exit the Feature:

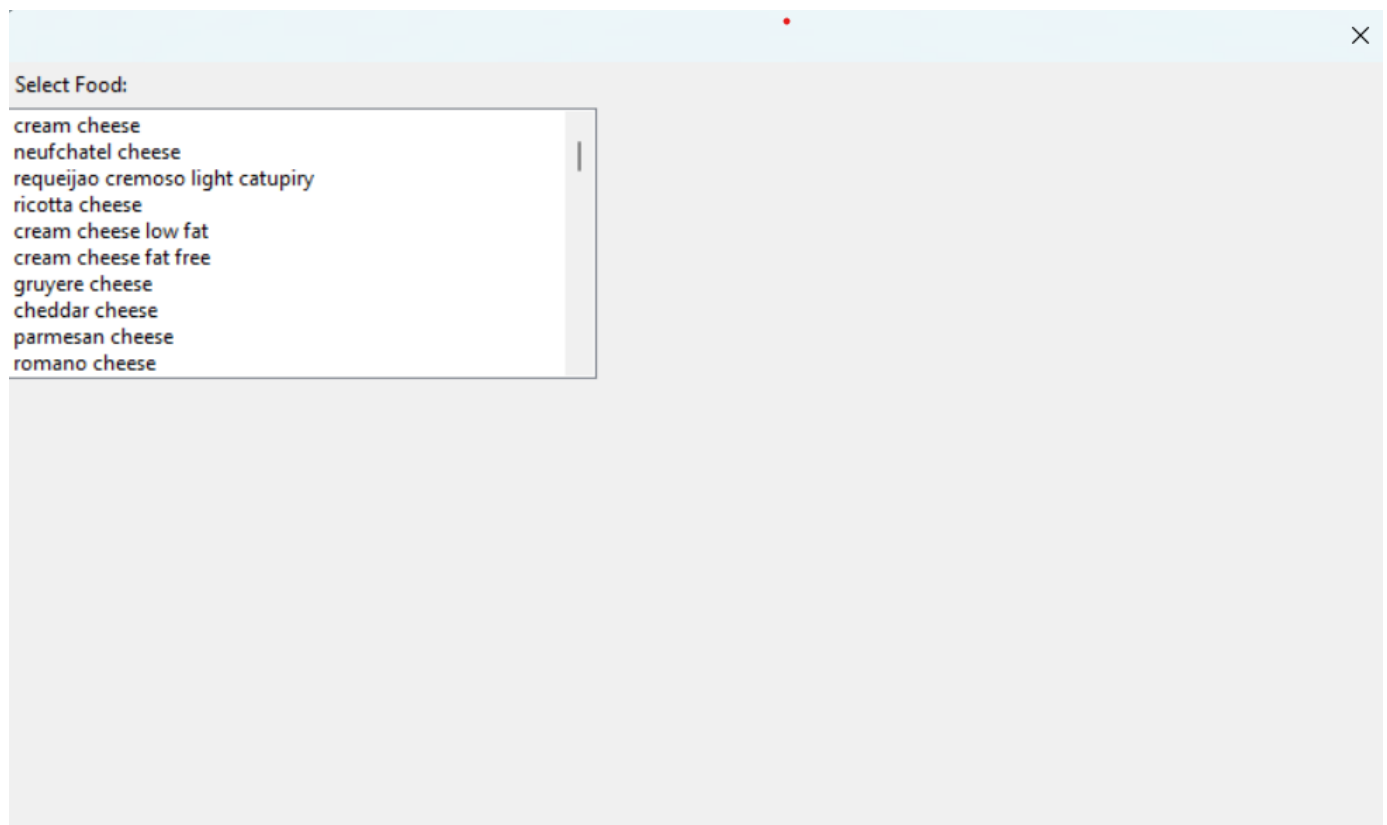
Once finished, select Close to exit or go back to the main menu.

Screenshots

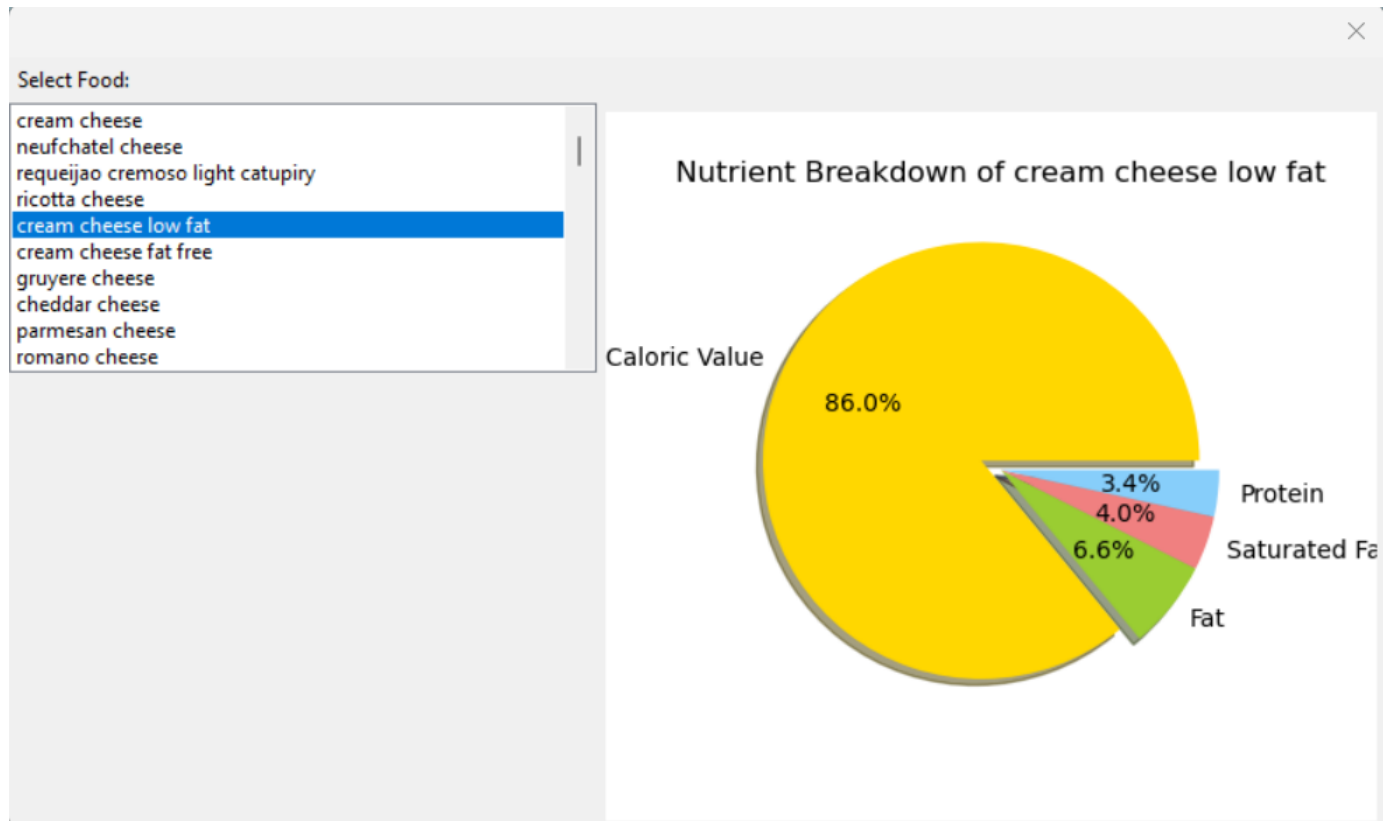
1. Select nutrient Breakdown Option:



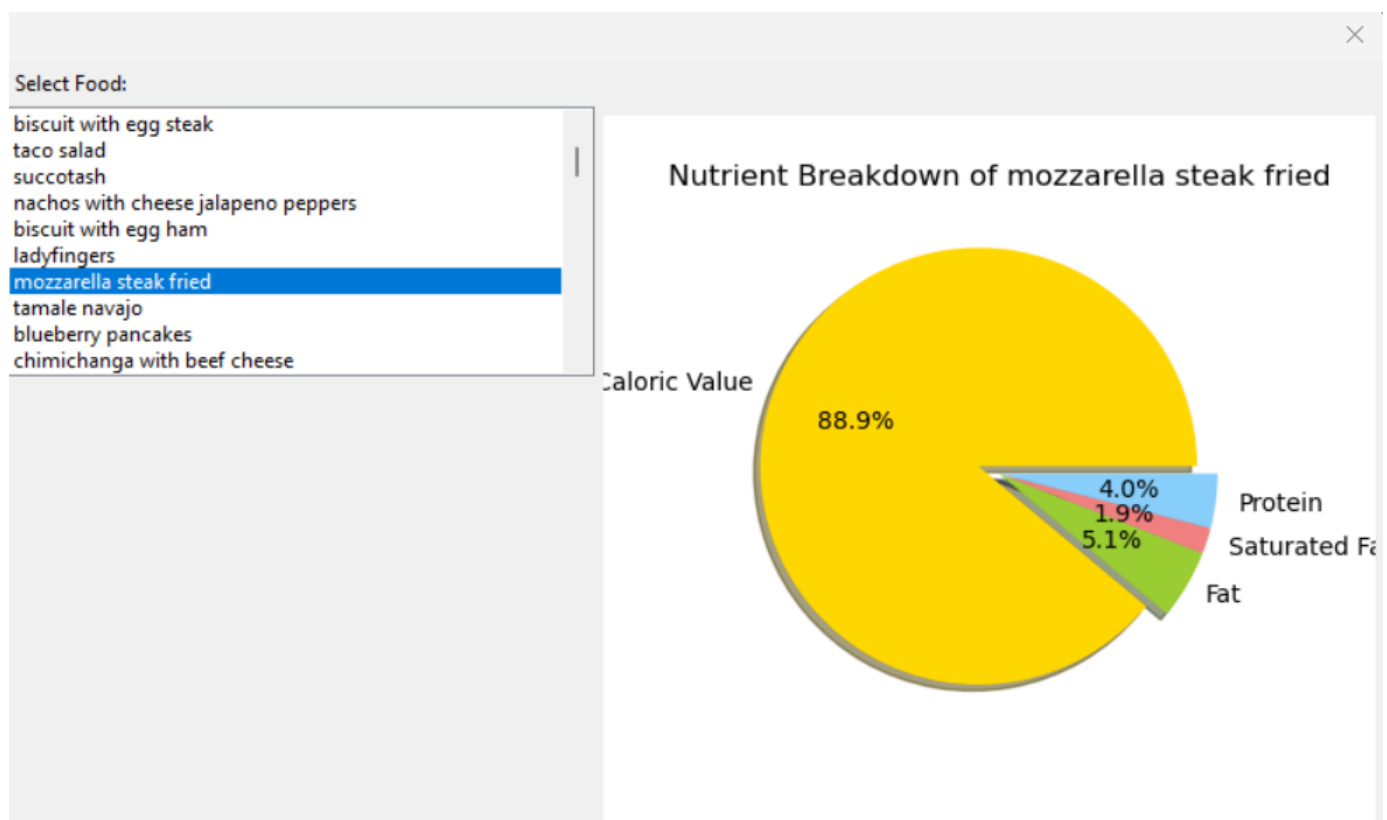
2. Choose a Food item:



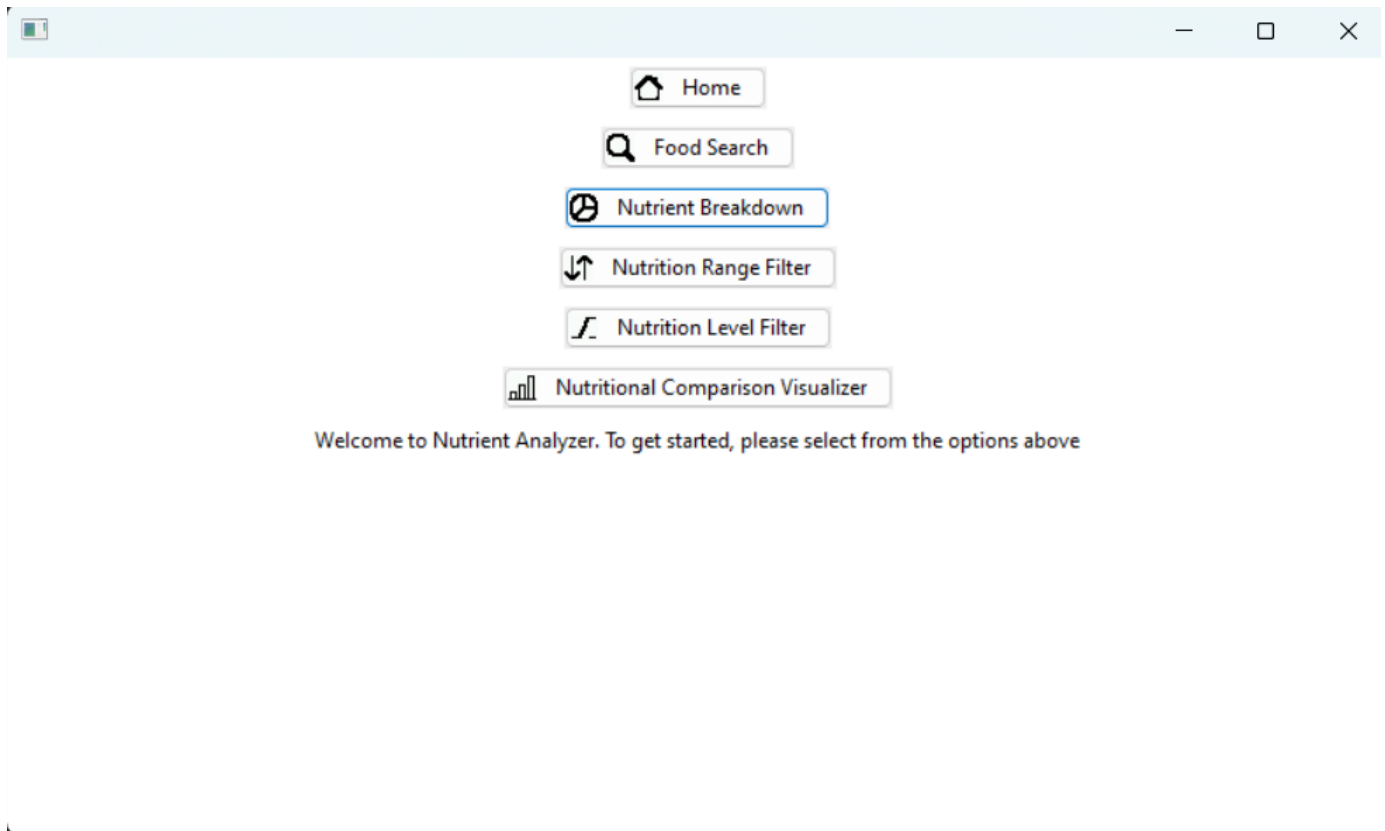
3. View the breakdown of nutrients:



4. Go back to select another food:



5. Exit the Feature:



3. Nutrition Range Filter

Description

Users may browse and filter a list of items that fall within a specific nutrient range by using the Nutrition Range Filter tool. To see items that fit the specified criteria, users can enter the lowest and maximum values for a certain nutrient (such as calories, protein, or fat). Based on their chosen nutrient preferences, this function assists users in finding meals that meet their unique dietary requirements.

Steps

1. Select the Nutrition Range Filter Function:

Navigate the Nutrition Range Filter option from the main menu.

2. Click on Drop Down function:

Users can expand a hidden nutrient list to choose a nutrient from the drop-down list.

3. Select the Nutrients:

Click on any Nutrient from the drop-down option for which the user wants to see the minimum and maximum value.

4. Set the range of Nutrient:

- i. There are input slots for the Minimum Range and Maximum Range in a dialogue box that appears.
- ii. In the Min Range text area, provide the intended minimum value.
- iii. In the text section labelled "Max Range," type the desired maximum value.

5. Click on Filter:

- i. A grid-style list of foods that fit within the chosen nutritional range will be displayed after "Filter" button is clicked.
- ii. The grid will show:
 - a. **Food Name:** Each food item's name.
 - b. **Nutrient Value:** The actual value of the chosen nutrient for every food item is known as the nutrient value.

6. Refine the Filter

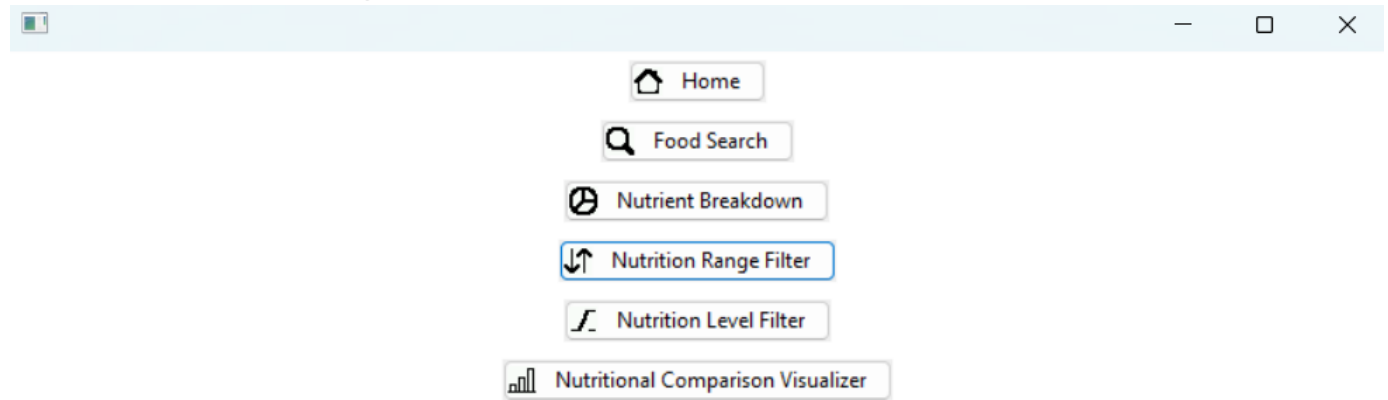
- i. Return to the Min Range and Max Range fields to change the numbers and also change the nutrient.
- ii. Re-click Filter to refresh the results.

6. Exit the Feature:

After locating the foods you want, click the Close button to close the range filter dialogue and go back to the application's main screen or other features.

Screenshots

1. Select the Nutrition Range Filter Function:



2. Click on Drop Down function:

Nutrition Density Range Filter

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Select Nutrient

Caloric Value

Min Range: Max Range: Filter

	Food Name	Value
1		
2		
3		
4		
5		

3. Select the Nutrients:

Nutrition Density Range Filter

×

Select Nutrient

Caloric Value

Caloric Value

Fat

Saturated Fats

Monounsaturated Fats

Polyunsaturated Fats

Carbohydrates

Sugars

Protein

Dietary Fiber

Cholesterol

Sodium

Water

Vitamin A

Vitamin B1

Vitamin B11

Vitamin B12

Vitamin B2

Vitamin B3

Vitamin B5

Vitamin B6

Vitamin C

Vitamin D

Vitamin E

Vitamin K

Calcium

Copper

Iron

Magnesium

Manganese

Phosphorus

Min Range:

Filter

		Value
1		
2		
3		
4		
5		

4. Set the range of Nutrient:

Nutrition Density Range Filter

×

Select Nutrient

Protein

Min Range:

5

Max Range:

10

Filter

	Food Name	Value
1		
2		
3		
4		
5		

5. Click on Filter:

Nutrition Density Range Filter
×

Select Nutrient

Protein

Min Range: 5
Max Range: 10
Filter

	Food Name	Value
1	cream cheese	7.07
2	requeijao cremoso light catupiry	5.4
3	ricotta cheese	5.196
4	chicken and rice casserole homemade	5.7
5	savoury noodle one pan dinner tandaco	6.7
6	chicken bouillon dry	9.502
7	original chicken sandwich chick fil a	5.1
8	chicken box mcdonalds	9.7
9	chicken mcnuggets mcdonalds	8.181
10	chips chipotle	9.4
11	grilled chicken sandwich wendys	8.0
12	jellyfish dried	6.517
13	roe raw	9.553
14	surimi	9.072

6. Refine the Filter

Nutrition Density Range Filter
×

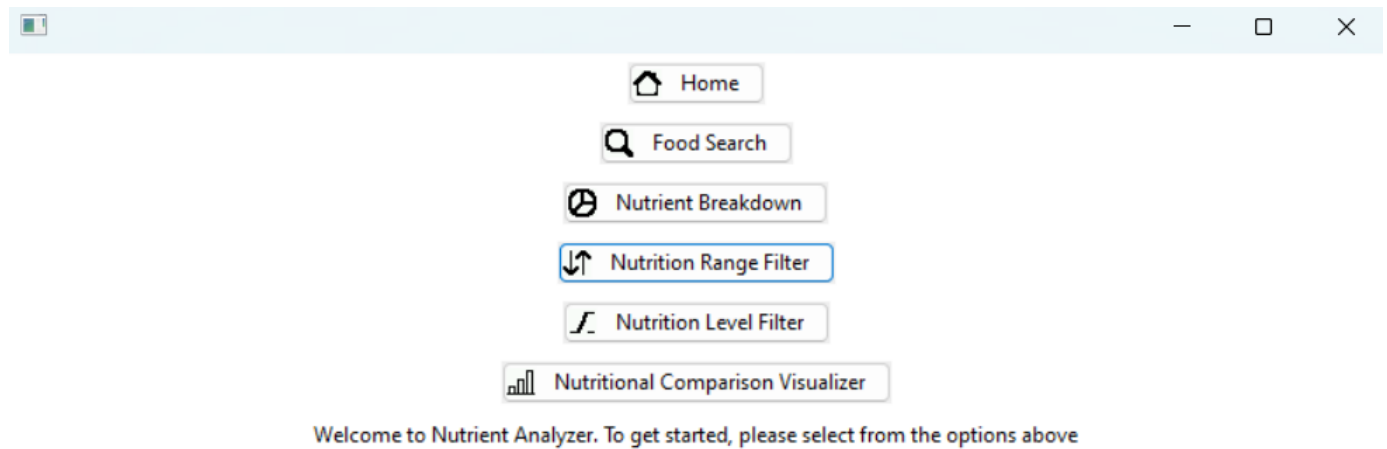
Select Nutrient

Vitamin D

Min Range: 70 Max Range: 80 Filter

	Food Name	Value
1	brie cheese	70.096
2	tahini	78.6
3	beef empanada	76.2
4	buttermilk pancakes	77.568
5	arroz con abichuelas	78.5
6	fried rice	75.203
7	french toast with butter	70.093
8	baked beans	76.2
9	vegetable chicken soup	72.737
10	cream of chicken soup	76.9
11	mushroom barley soup	71.1
12	chili beef soup	77.607
13	pea soup	76.26
14	oyster stew soup	72.8
15	...	75.0

7. Exit the Feature:



4. Nutrition Level Filter

Description

Users may filter items by low, mid, and high nutritional content levels for different nutrients, including fat, protein, carbs, sugar, and nutritional density, using the Nutrition Level Filter function. The following standards are used to categorise the nutritional levels:

Low: The chosen nutrient's value is less than 33% of its maximum value.

Mid: From 33% to 66% of the maximum amount.

High: Exceeding 66% of the maximum amount.

This function lets users filter items according to their nutritional composition, which makes it easier for them to choose foods that fit their dietary needs.

Steps

1. Navigate the Nutrition Level Filter Feature:

Launch the app, then use the main menu to find the Nutrition Level Filter option and click on it to open.

2. Choose the nutrient:

User chooses the nutrient from the drop-down list of nutrients, to check the low, medium and high level in each food.

3. Choose Your Nutritional Levels:

- i. There will be radio button for each level—Low, Medium, and High—in the dialogue box that displays.
- ii. To filter for certain nutritional values, check the corresponding boxes:
 - i. **Low:** Choose this choice to incorporate foods with a nutritional value of less than 33%.
 - ii. **Medium:** Choose this option to include items that range from 33% to 66% in terms of nutritional value.
 - iii. **High:** Choose this choice to incorporate meals with a nutritional value more than 66%.

4. Click on the Filter button:

- i. Click the Filter button once the required nutritional values have been chosen.
- ii. Based on the levels that have been chosen, the system will filter foods and update the grid with the filtered results.

5. View Results Filtered and again adjust the nutrient and its level:

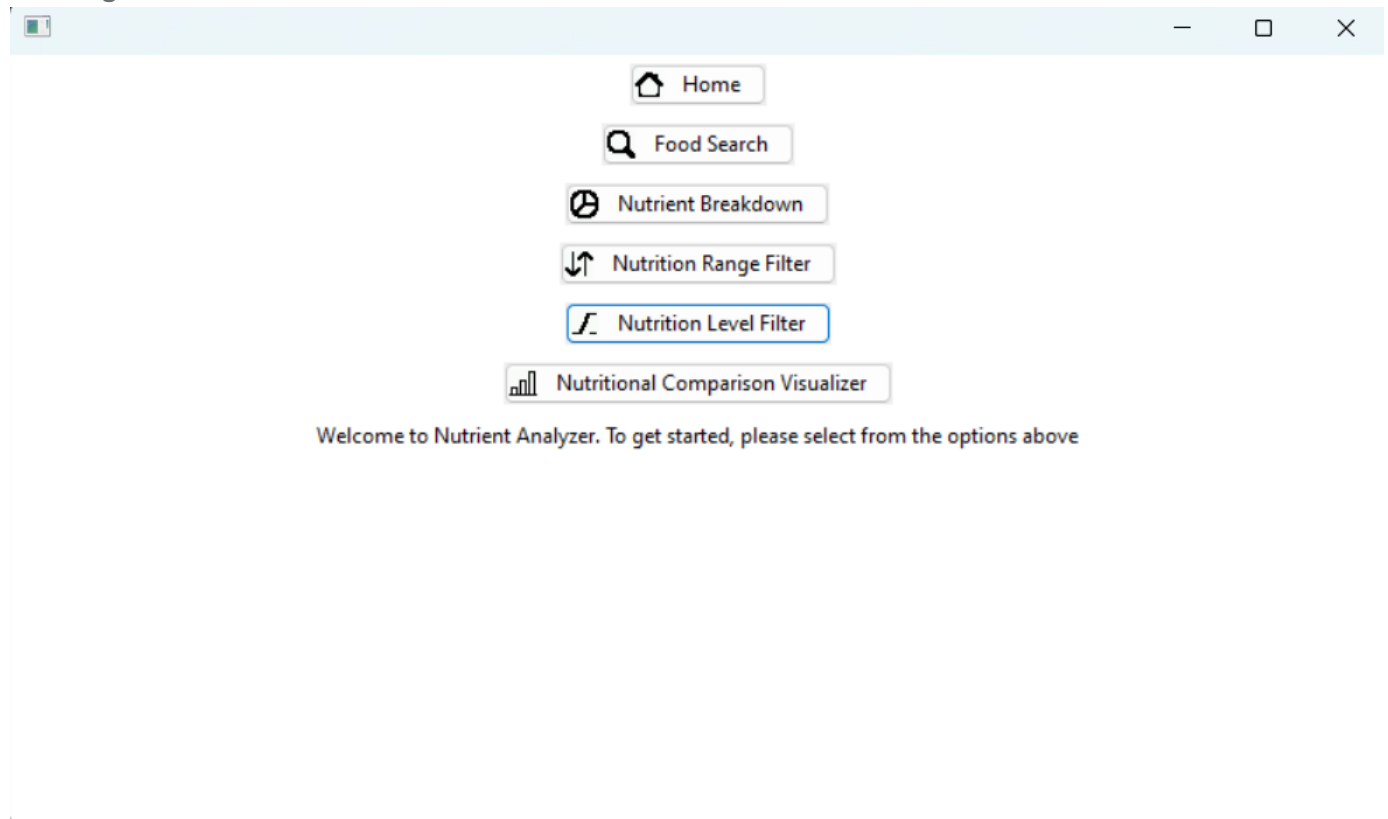
- i. The filtered items will be shown in a grid with their quantities values. ii. The grid will have the following items:
 - i. **Food Name:** Each food item's name.
 - ii. **Levels of Nutrients:** The particular concentration of every nutrient in every food item.

6. Exit the Feature:

After locating the items you want, select Close to close the nutrition level filter dialogue and go back to the main program.

Screenshots

1. Navigate the Nutrition Level Filter Feature:



2. Choose the nutrient:

Select Nutrient to check its levels

Caloric Value

Fat

Saturated Fats

Monounsaturated Fats

Polyunsaturated Fats

Carbohydrates

Sugars

Protein

Dietary Fiber

Cholesterol

Sodium

Water

Vitamin A

Vitamin B1

Vitamin B11

Vitamin B12

Vitamin B2

Vitamin B3

Vitamin B5

Vitamin B6

Vitamin C

Vitamin D

Vitamin E

Vitamin K

Calcium

Copper

Iron

Magnesium

Manganese

Phosphorus

3. Choose Your Nutritional Levels:

×

Select Nutrient to check its levels

Vitamin A

Select Nutrient Level

☐ Low

☒ Medium

☐ High

Filter Food Items for that Level

	Food Name	Nutrition Density
1		
2		
3		
4		
5		

4. Click on the Filter button:

×

Select Nutrient to check its levels

Vitamin A

Select Nutrient Level

☐ Low ☒ Medium ☐ High

Filter Food Items for that Level

	Food Name	Nutrition Density
1	gamay red wine	128.6
2	late harvest white wine	119.8
3	muller thurgau white wine	129.2
4	mouvedre red wine	126.1
5	petite sirah red wine	126.7
6	lemberger red wine	127.9
7	semillon white wine	128.1
8	claret red wine	127.0
9	fume blanc white wine	127.9
10	hyacinth beans cooked	134.1

5. View Results Filtered and again adjust the nutrient and its level:

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Select Nutrient to check its levels

Cholesterol

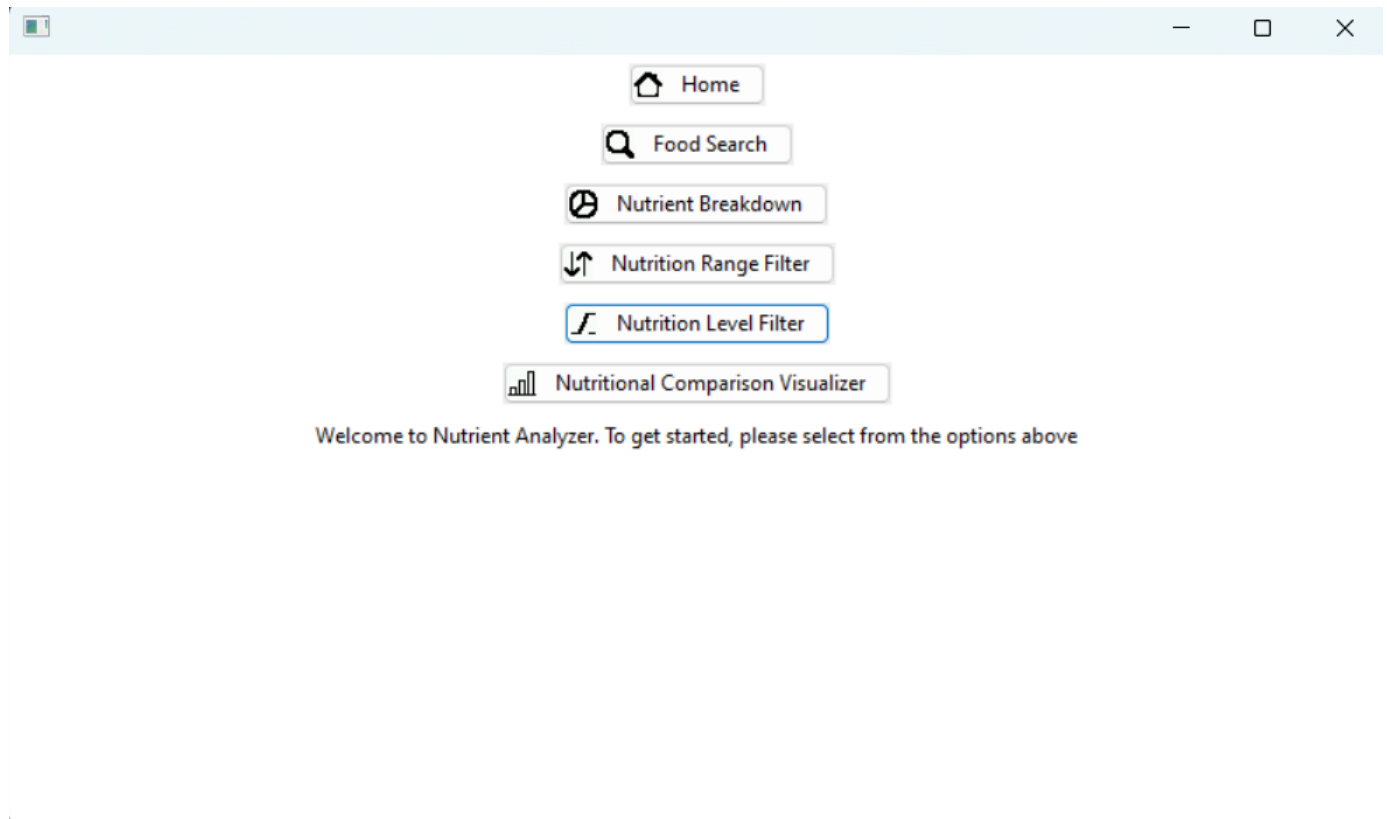
Select Nutrient Level

☐ Low ☐ Medium ☒ High

Filter Food Items for that Level

	Food Name	Nutrition Density
1	veal brain cooked	10509.0
2	beef brain cooked	7002.5
3	pork brain cooked	9748.6
4	lamb brain cooked	7089.2

6. Exit the Feature:



5. Nutritional Comparison Visualizer

Description

Users may visually compare the nutrients of various food products using this tool. Users may observe a graphical comparison of many nutritional elements, including fat, protein, carbs, and other important nutrients, by selecting food products from a list. The visualiser helps consumers make educated dietary decisions by offering an easy-to-use method of comparing the nutritional value of various meals.

Steps

1. Navigate the Nutritional Comparison Visualizer:

Open the visualiser by selecting it from the application menu.

2. Choose the Nutrient:

Users choose nutrient from the drop-down list that they want to do food comparison for that nutrient.

3. Choose the Food to compare

Users choose three food items from the drop-down list by selecting the ones they want in the selection box.

4. Press the 'Visualize' button.

To produce the comparison, choose the food products and then click the 'Visualize' option.

5. Re-define the findings

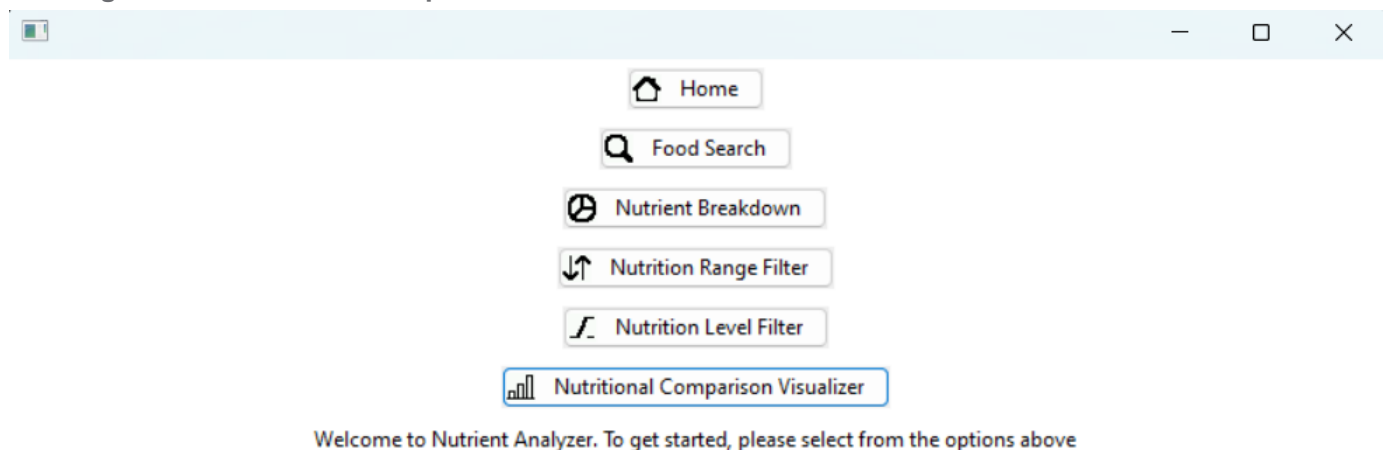
The data can be re-define, by selecting the another food with another nutrient to do comparison.

6. Exit the Feature:

After visualize the items you want, select Close to close the nutrition level filter dialogue and go back to the main program.

Screenshots

1. Navigate the Nutritional Comparison Visualizer:



2. Choose the Nutrient

×

Select Foods to Visualize Nutritional Comparison

Which Nutrient do you want to Compare?

Food Choice 1

Food Choice 2

Food Choice 3

Caloric Value

Caloric Value

Fat

Saturated Fats

Monounsaturated Fats

Polyunsaturated Fats

Carbohydrates

Sugars

Protein

Dietary Fiber

Cholesterol

Sodium

Water

Vitamin A

Vitamin B1

Vitamin B11

Vitamin B12

Vitamin B2

Vitamin B3

Vitamin B5

Vitamin B6

Vitamin C

Vitamin D

Vitamin E

Vitamin K

Calcium

Copper

Iron

Magnesium

Manganese

Phosphorus

3. Choose the Food to compare

×

Select Foods to Visualize Nutritional Comparison

Which Nutrient do you want to Compare?

Caloric Value

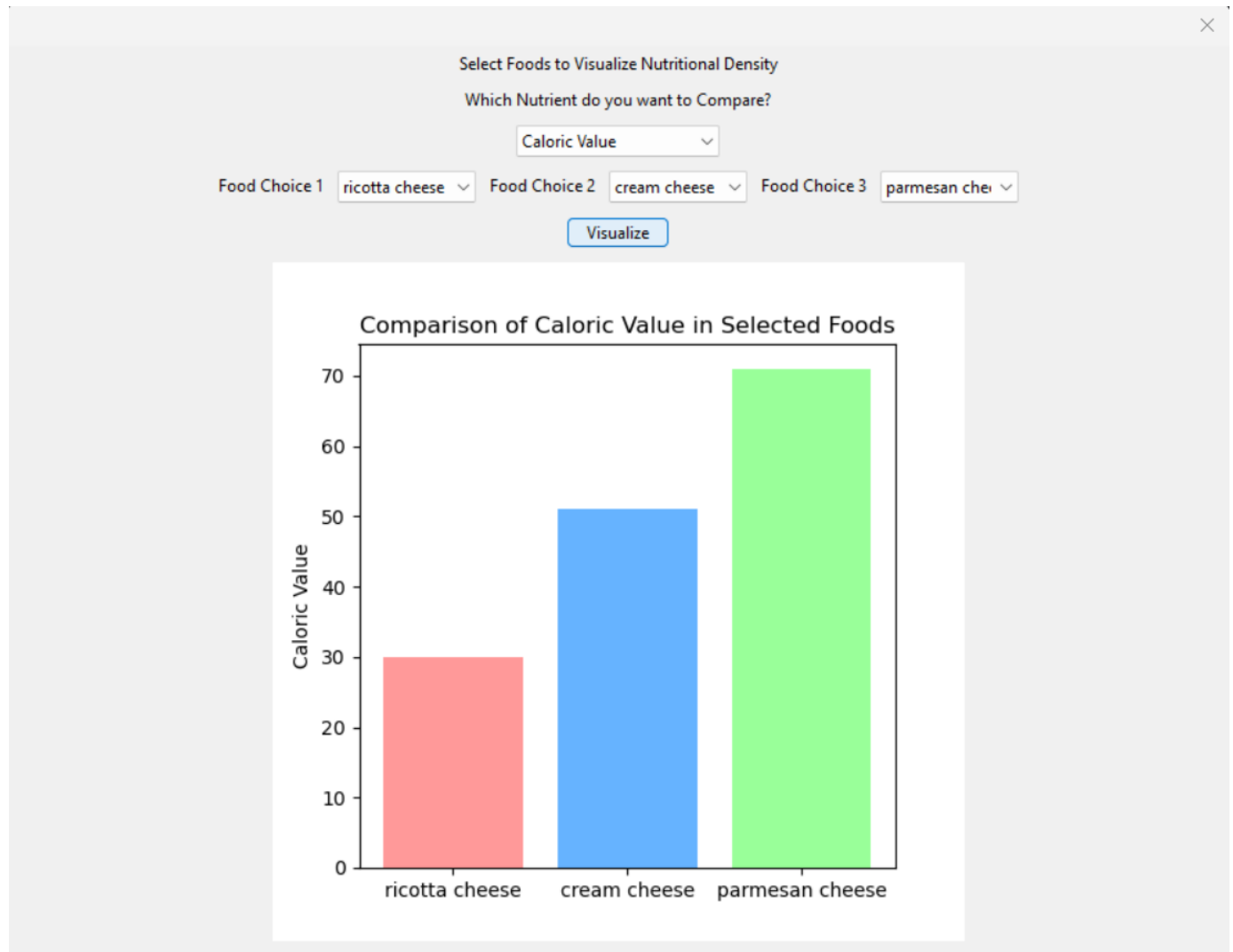
Food Choice 1 ricotta cheese

Food Choice 2 cream cheese

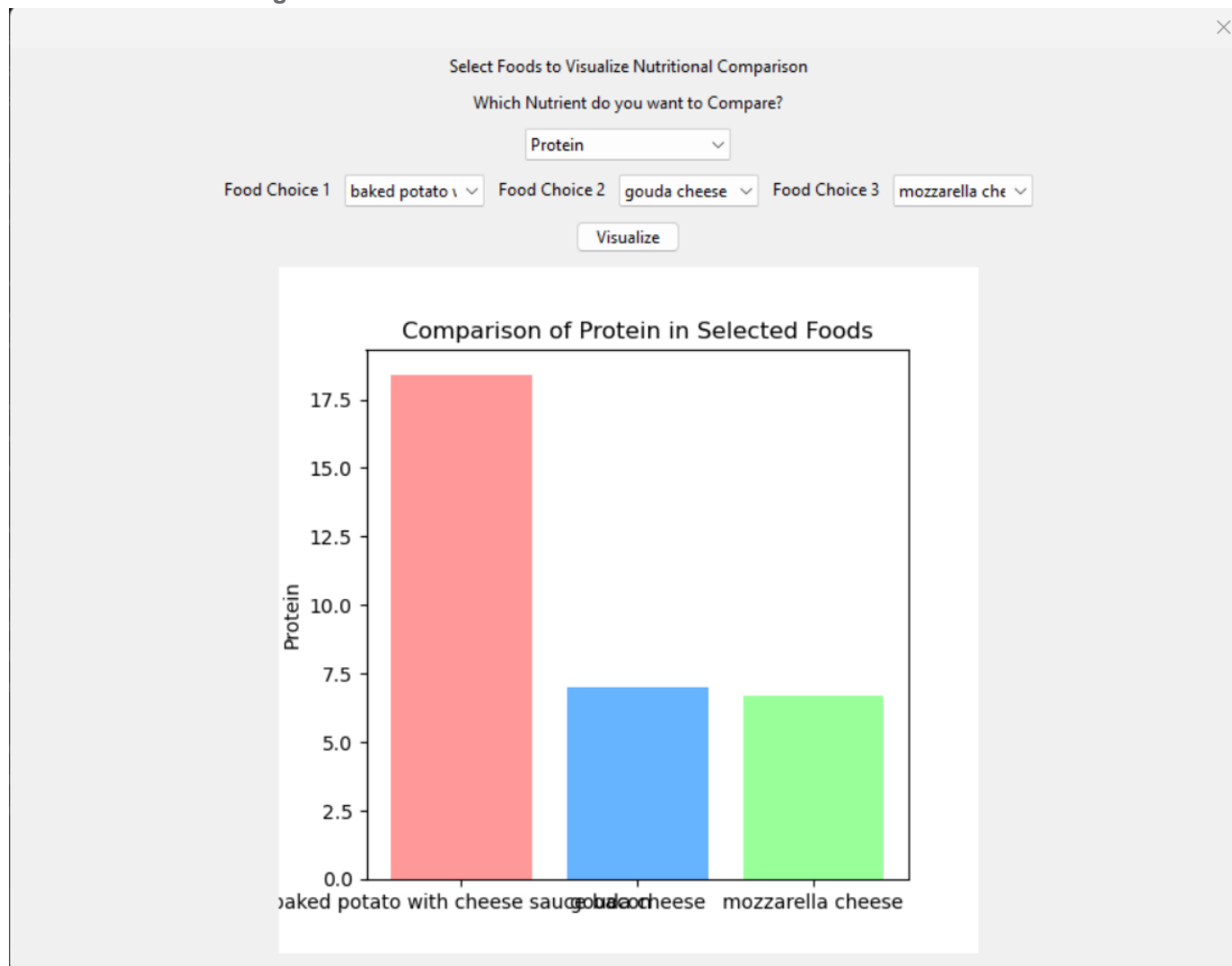
Food Choice 3 parmesan che

Visualize

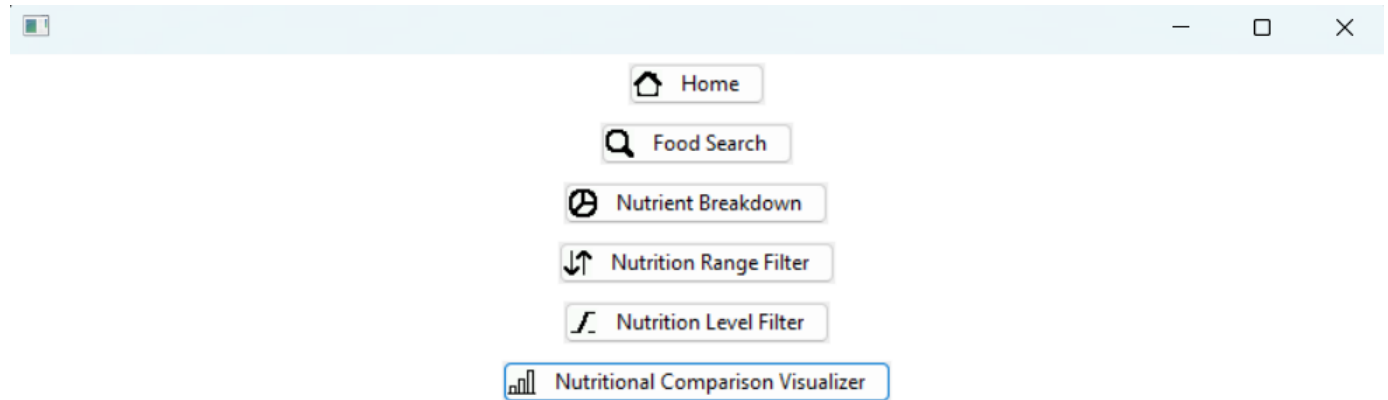
4. Press the 'Visualize' button.



5. Re-define the findings



6. Exit the Feature:



Welcome to Nutrient Analyzer. To get started, please select from the options above