

DIET PROBLEM SOLVER

USER MANUAL

Alexander Gabriel Aranes - Author | Developer

This document will serve as the instruction manual for new users on how to fully utilize the Diet Problem Solver app.

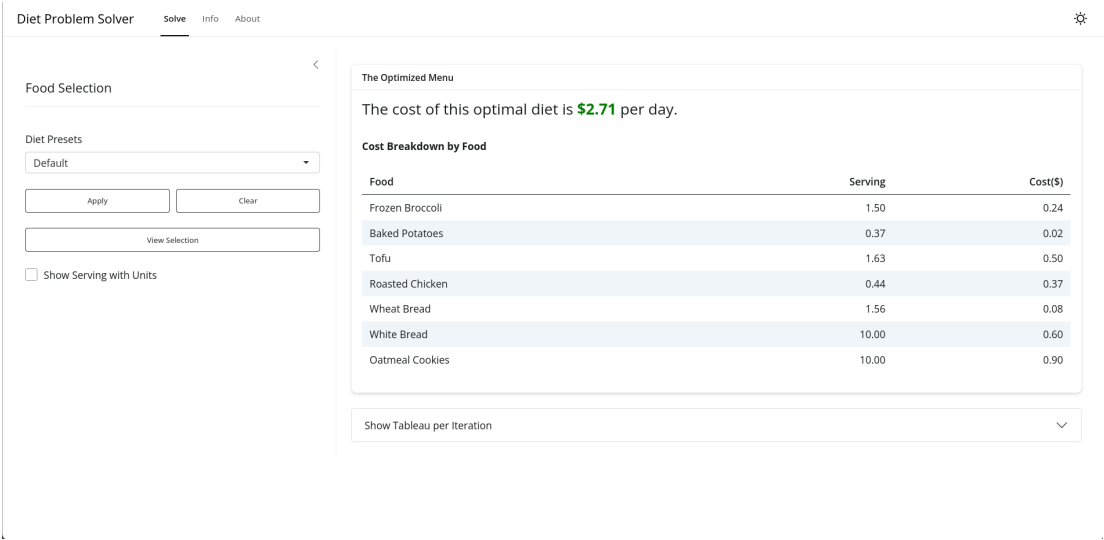
App Repository: <https://github.com/alexgaaranes/Diet-Problem-Solver>

Download app archive: <https://tinyurl.com/4wbz45j>

Use app online: <https://alexgaaranes.github.io/Diet-Problem-Solver/>

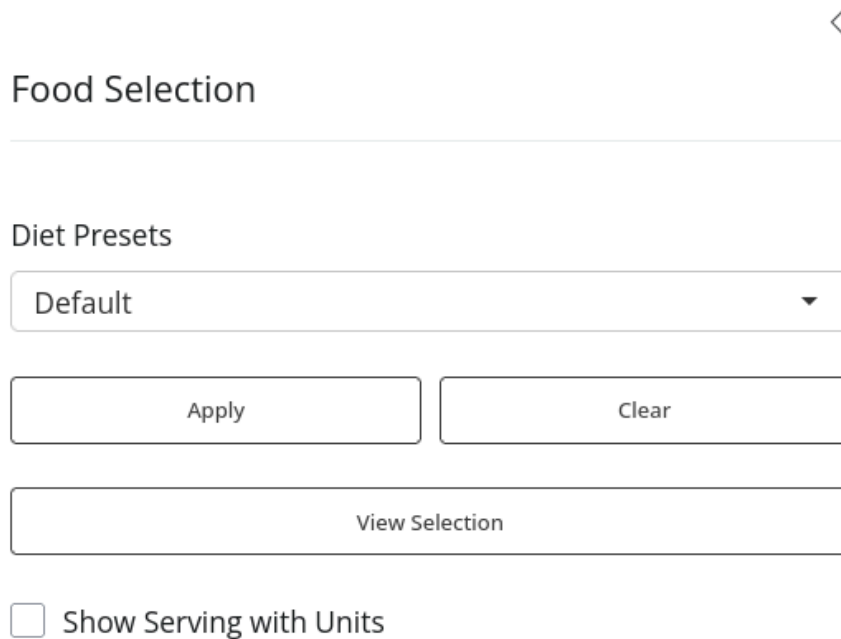
Usage:

1.) Upon opening of the app, this will be the first thing users will see.



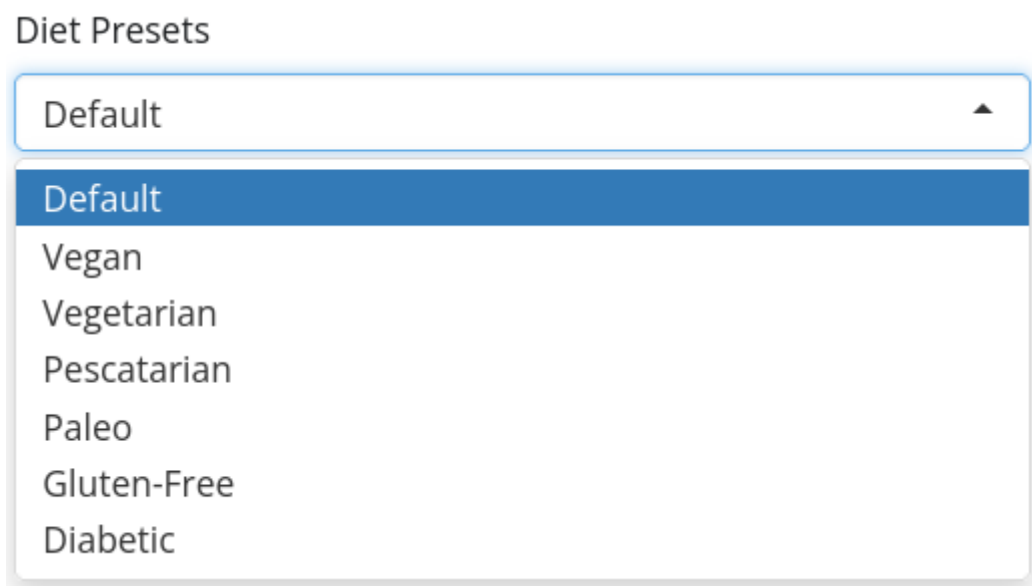
This is where all the features can be located and can be used. There are more tabs for users to explore but those tabs don't have significant features for app usage.

2.) In the **Food Selection** side panel on the left, users are offered options on how they want to select the food that will be used for the calculation.



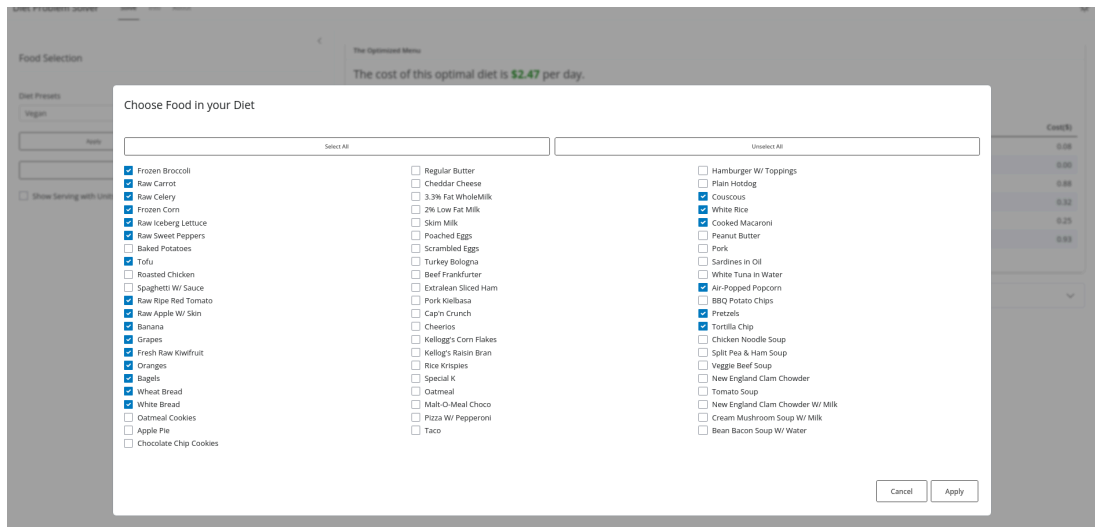
The screenshot shows a side panel titled "Food Selection" with a back arrow in the top right corner. Below the title is a section labeled "Diet Presets" containing a dropdown menu with "Default" selected. Underneath the dropdown are two buttons: "Apply" and "Clear". Below these is a single button labeled "View Selection". At the bottom of the panel is a checkbox labeled "Show Serving with Units", which is currently unchecked.

3.) There are presets of selection that correspond to a type of diet. Users can also click **Apply** to use the preset for the calculation.



The screenshot shows the "Diet Presets" dropdown menu open. The menu lists several diet options: "Default", "Vegan", "Vegetarian", "Pescatarian", "Paleo", "Gluten-Free", and "Diabetic". The "Default" option is currently selected and highlighted with a blue background.

4.) To make a custom selection of food, users can click **View Selection** that will open a **Modal Dialog** showing all the available food.



5.) Upon applying changes, the app will calculate the minimum cost and diet plan based on the selected food. It will be shown on the **right side** of the page.

The Optimized Menu		
The cost of this optimal diet is \$2.71 per day.		
Cost Breakdown by Food		
Food	Serving	Cost(\$)
Frozen Broccoli	1.50	0.24
Baked Potatoes	0.37	0.02
Tofu	1.63	0.50
Roasted Chicken	0.44	0.37
Wheat Bread	1.56	0.08
White Bread	10.00	0.60
Oatmeal Cookies	10.00	0.90

Show Tableau per Iteration

6.) Users can check the **Show Serving with Units** checkbox to see the actual measurement of the food servings base on the data.

Food Selection

Diet Presets

Default

ApplyClear

View Selection

☒ Show Serving with Units

The Optimized Menu

The cost of this optimal diet is **\$2.71** per day.

Cost Breakdown by Food

Food	Serving	Cost(\$)
Frozen Broccoli	14.96 OzPkg	0.24
Baked Potatoes	0.18 CupShredded	0.02
Tofu	1.63 Stalk	0.50
Roasted Chicken	0.22 Cup	0.37
Wheat Bread	1.56 Leaf	0.08
White Bread	10.00 Pepper	0.60
Oatmeal Cookies	5.00 Cup	0.90

Show Tableau per Iteration

7.) For curious users who wants to see the **step-by-step** changes during the calculation, the **Show Tableau per Iteration** accordion will show the table of values and solutions calculated by the app.

Show Tableau per Iteration

Iteration 1

Tableau

S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31
0.00	0.00	-0.02	0.02	0.00	-0.00	0.00	0.00	0.00	0.00	-0.06	0.06	-0.04	0.04	-46.49	46.49	-1.25	1.25	-1.00	1.00	0.00	0.00	-0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-7.71	7.71	0.58	-0.58	0.00	0.00	0.00	0.00	-0.97	0.97	-1.48	1.48	-996.08	996.08	-27.55	27.55	0.00	0.00	1.00	-1.00	-0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-3.01	3.01	0.11	-0.11	0.00	0.00	0.00	0.00	0.08	-0.08	-0.11	0.11	379.95	-379.95	7.97	-7.97	0.00	0.00	0.00	0.00	0.07	-0.07	0.00	0.00	-1.00	1.00	0.00	0.00	0.00
0.00	0.00	11.38	-11.38	-1.45	1.45	0.00	0.00	0.00	0.00	0.52	-0.52	0.94	-0.94	1150.61	-1150.61	36.61	-36.61	0.00	0.00	0.00	0.00	0.22	-0.22	0.00	0.00	0.00	0.00	-1.00	1.00	0.00
0.00	0.00	-0.01	0.01	0.06	-0.06	0.00	0.00	0.00	0.00	-0.13	0.13	0.02	-0.02	37.63	-37.63	2.05	-2.05	0.00	0.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	-1.00
0.00	0.00	1.44	-1.44	-0.24	0.24	0.00	0.00	0.00	0.00	-0.48	0.48	0.13	-0.13	-68.40	68.40	-53.31	53.31	0.00	0.00	0.00	0.00	0.07	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-1.00	1.00	-0.56	0.56	-0.03	0.03	0.00	0.00	0.00	0.00	-0.00	0.00	-0.17	0.17	-6.14	6.14	-0.18	0.18	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.89	-0.89	-0.19	0.19	0.00	0.00	0.00	0.00	-0.28	0.28	0.54	-0.54	-14742.13	14742.13	16.20	-16.20	0.00	0.00	0.00	0.00	0.13	-0.13	-1.00	1.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-16.17	16.17	2.36	-2.36	0.00	0.00	0.00	0.00	-1.01	1.01	-4.87	4.87	-548.74	548.74	-17.95	17.95	0.00	0.00	0.00	0.00	-0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-16.02	16.02	-2.20	2.20	0.00	0.00	0.00	0.00	-5.31	5.31	4.31	-4.31	-4477.01	4477.01	-90.25	90.25	0.00	0.00	0.00	0.00	-0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.11	-0.11	-0.29	0.29	0.00	0.00	0.00	0.00	-0.80	0.80	-0.25	0.25	-667.15	667.15	-18.95	18.95	0.00	0.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	11.62	-11.62	-1.93	1.93	0.00	0.00	0.00	0.00	-0.15	0.15	3.26	-3.26	1877.30	-1877.30	54.52	-54.52	0.00	0.00	0.00	0.00	0.34	-0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	14.21	-14.21	-2.15	2.15	0.00	0.00	0.00	0.00	1.37	-1.37	3.09	-3.09	1986.33	-1986.33	58.04	-58.04	0.00	0.00	0.00	0.00	0.36	-0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	1.35	-1.35	-0.37	0.37	0.00	0.00	0.00	0.00	0.51	-0.51	0.33	-0.33	357.84	-357.84	11.14	-11.14	0.00	0.00	0.00	0.00	0.07	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	6.22	-6.22	-0.91	0.91	0.00	0.00	0.00	0.00	-0.07	0.07	1.82	-1.82	1392.85	-1392.85	-28.35	28.35	0.00	0.00	0.00	0.00	0.26	-0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	10.99	-10.99	-1.42	1.42	0.00	0.00	0.00	0.00	2.08	-2.08	3.71	-3.71	3325.04	-3325.04	34.37	-34.37	0.00	0.00	0.00	0.00	0.62	-0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-0.50	0.50	0.64	-0.64	0.00	0.00	0.00	0.00	1.33	-1.33	-0.21	0.21	294.72	-294.72	8.33	-8.33	0.00	0.00	0.00	0.00	0.05	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-0.69	0.69	-0.09	0.09	0.00	0.00	0.00	0.00	-0.89	0.89	-0.72	0.72	-595.57	595.57	-15.79	15.79	0.00	0.00	0.00	0.00	-0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-1.54	1.54	-0.20	0.20	0.00	0.00	1.00	-1.00	0.14	-0.14	-0.48	0.48	57.08	-57.08	1.95	-1.95	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-0.09	0.09	0.01	-0.01	1.00	-1.00	0.00	0.00	-0.00	0.00	-0.02	0.02	-6.78	6.78	-0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	243.23	56.77	5.49	59.51	0.00	2400.00	0.00	300.00	64.79	10.21	15.48	34.52	40999.21	4000.79	19753.44	196.56	800.00	0.00	0.00	20.00	8.50	1.50	10.00	0.00	10.00	0.00	10.00	0.00	10.00

Basic Solution

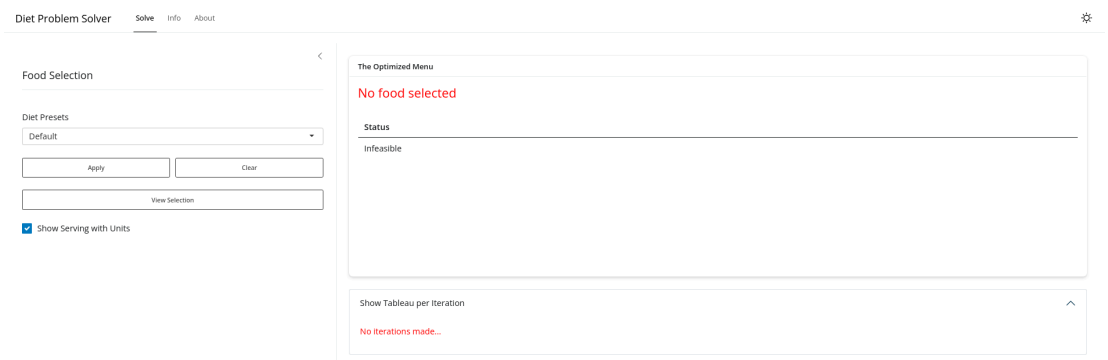
S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32
250.00	0.00	243.23	56.77	5.49	59.51	0.00	2400.00	0.00	300.00	64.79	10.21	15.48	34.52	40999.21	4000.79	19753.44	196.56	800.00	0.00	0.00	20.00	8.50	1.50	10.00	0.00	10.00	0.00	10.00	0.00	10.00	0.00

Iteration 2

Tableau

S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31
0.00	0.00	-0.02	0.02	0.00	-0.00	0.00	0.00	0.00	0.00	-0.06	0.06	-0.04	0.04	-46.49	46.49	-1.25	1.25	-1.00	1.00	0.00	0.00	-0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-7.71	7.71	0.58	-0.58	0.00	0.00	0.00	0.00	-0.97	0.97	-1.48	1.48	-996.08	996.08	-27.55	27.55	0.00	0.00	1.00	-1.00	-0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	-3.01	3.01	0.11	-0.11	0.00	0.00	0.00	0.00	0.08	-0.08	-0.11	0.11	379.95	-379.95	7.97	-7.97	0.00	0.00	0.00	0.00	0.07	-0.07	0.00	0.00	-1.00	1.00	0.00	0.00	0.00
0.00	0.00	11.38	-11.38	-1.45	1.45	0.00	0.00	0.00	0.00	0.52	-0.52	0.94	-0.94	1150.61	-1150.61	36.61	-36.61	0.00	0.00	0.00	0.00	0.22	-0.22	0.00	0.00	0.00	0.00	-1.00	1.00	0.00
0.00	0.00	-0.01	0.01	0.06	-0.06	0.00	0.00	0.00	0.00	-0.13	0.13	0.02	-0.02	37.63	-37.63	2.05	-2.05	0.00	0.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	-1.00
0.00	0.00	1.44	-1.44	-0.24	0.24	0.00	0.00	0.00	0.00	-0.48	0.48	0.13	-0.13	-68.40	68.40	-53.31	53.31	0.00	0.00	0.00	0.00	0.07	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8.) Users can also clear the selection of food and there will be no result table to show.



9.) On the **top right** of the page, there's a button for toggling between **light** and **dark** mode.

