USER MANUAL

Diet Solver

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Section: B2L

Setting up the app

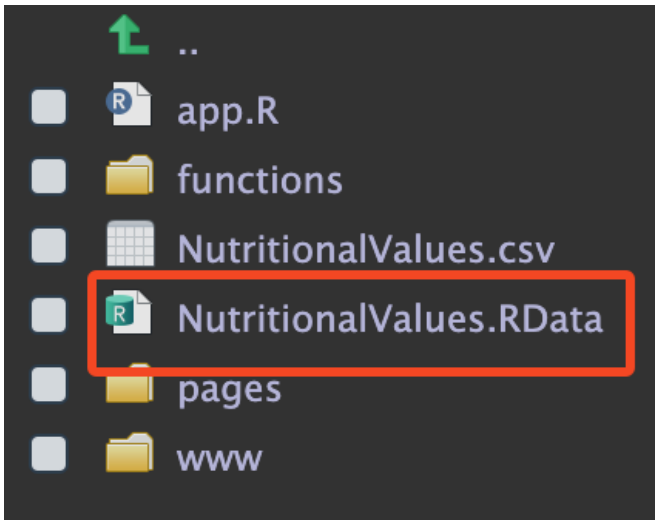
Before we start running the app, it is important to **change the working directory** inside the app.R file.

```
# IMPORTANT!!!
setwd("/Users/markusrecaplaza/Documents/CMSC/150/project/finalproject")
```

You need to change this with your personal path to the location of this folder.

After successfully setting up the directory, we now need to load the **NutritionalValues.RData**. You will only need to do this once during your session in the RStudio.

You can double-click the **NutritionalValues.RData** in the files pane on your RStudio.



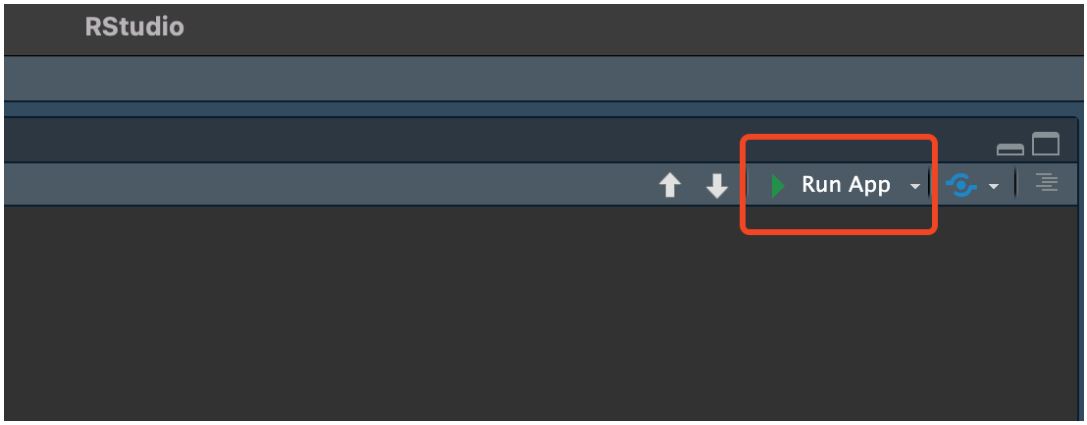
Or, if you're feeling nerdy, you may type in this command in the terminal:

```
Unset
load("NutritionalValues.RData")
```

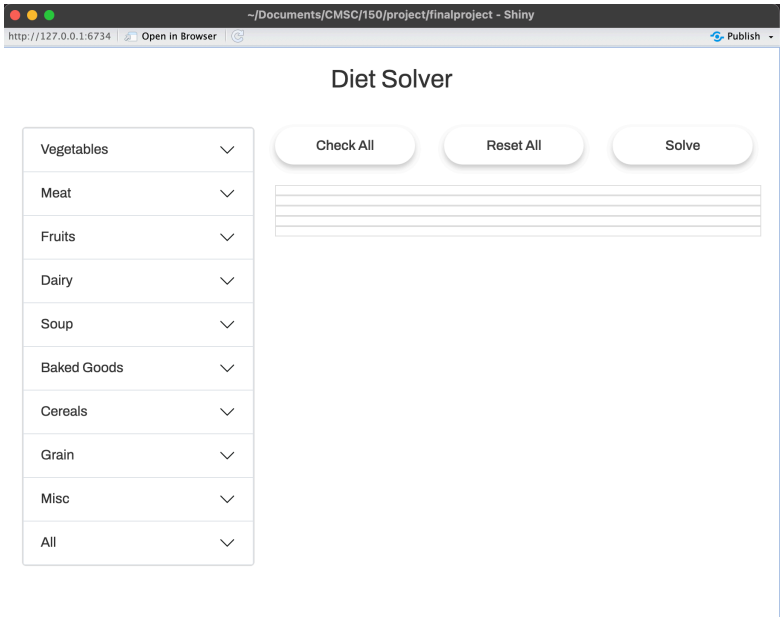
Once you're done, you have now successfully completed the setup stage!

Running the app

We can now run the app by pressing **cmd + shift + enter** or **ctrl + shift + enter**. You may also click the Run App button on the top right portion of the RStudio screen.

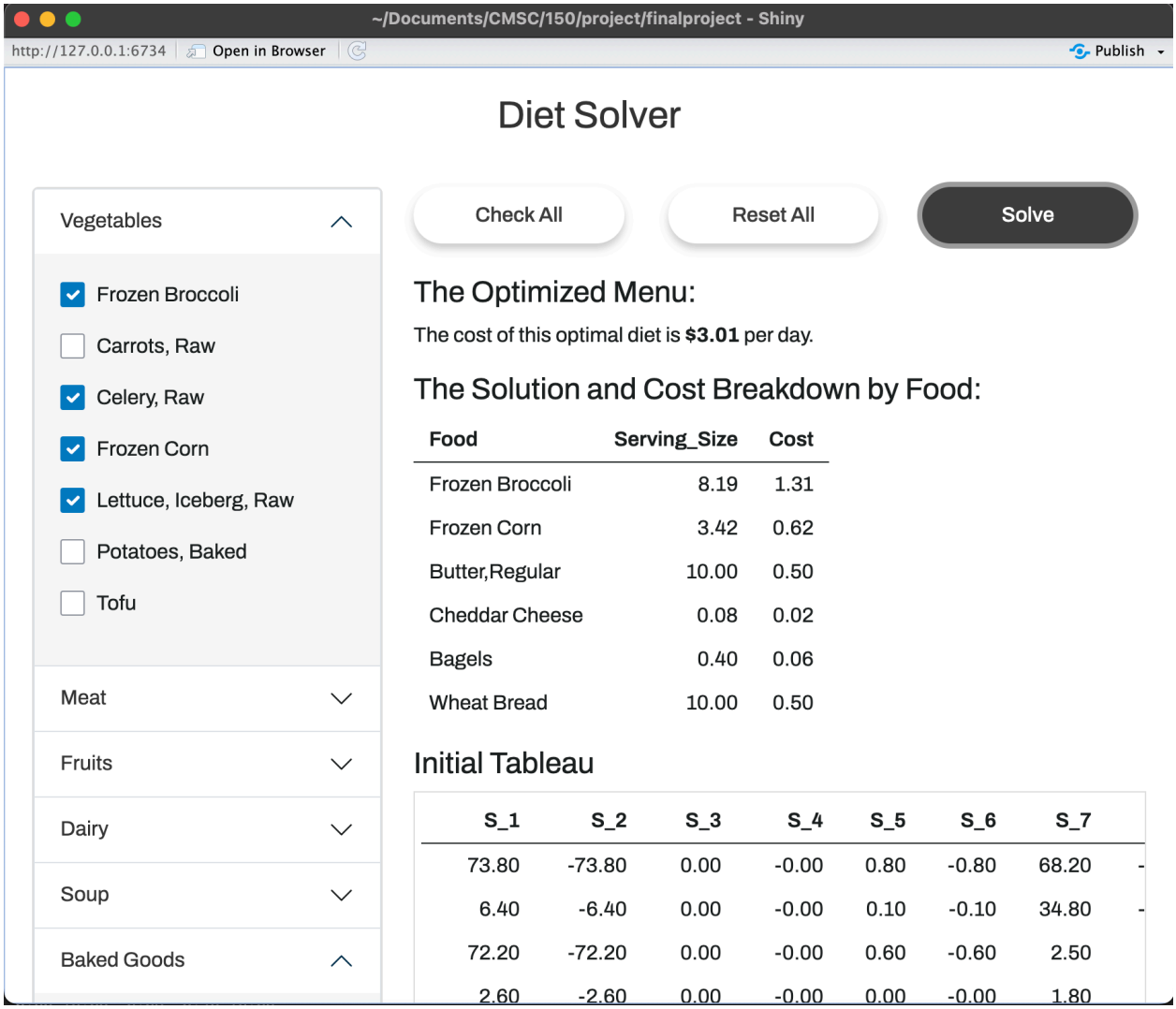


After running the app, you should have this window pop-up:



You may now start using the **diet solver**! To find a certain food, you may **click the accordion panel** on the left side of the window and **click the checkboxes of the food** that you want to add. If you want to look at **all the selection of the foods**, there is an **All option** on the lowermost part of the accordion.

Once you have chosen the food that you want to include in your diet, you can now click the **Solve button**.



As you can see, the solver has now calculated the **best optimized menu** among the foods that you have selected. It returns the **total cost** of the optimal diet, the **serving size** for each food, and the **cost of each food** given its serving size.

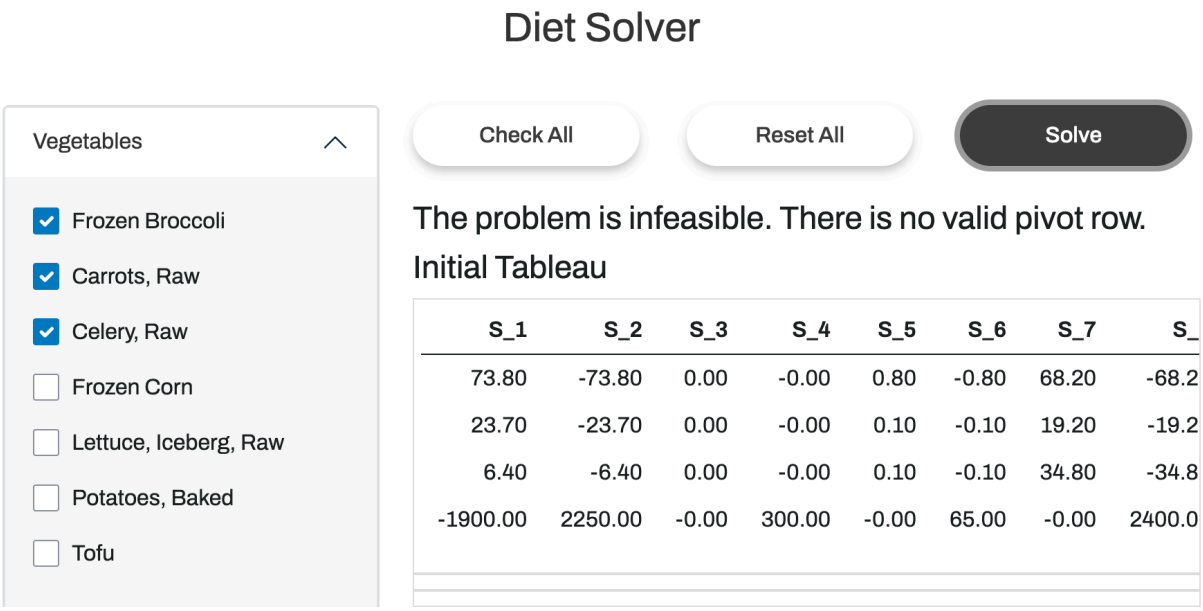
Scrolling down, you can also see the **Initial Tableau**, **Final Tableau**, and the **Tableau and Basic Solution for each iteration** of the Simplex method.

If you want to **check all the checkboxes**, you can simply press the Check All button. Do not worry as it will not duplicate any foods that you have selected already.

If you want to **reset the solver** or you want to **uncheck the foods** you have selected, you can press the **Reset All button** which will clear the state of the solver as if it is the first time you have opened it.

Certain cases

If you are worried that this happens to you:



Do not worry because this just means that the foods you have selected are **not enough** to calculate the optimal diet. You just simply need to **add more foods** until the solver finds a feasible solution.