USER'S MANUAL

CMSC 150 FINAL PROJECT

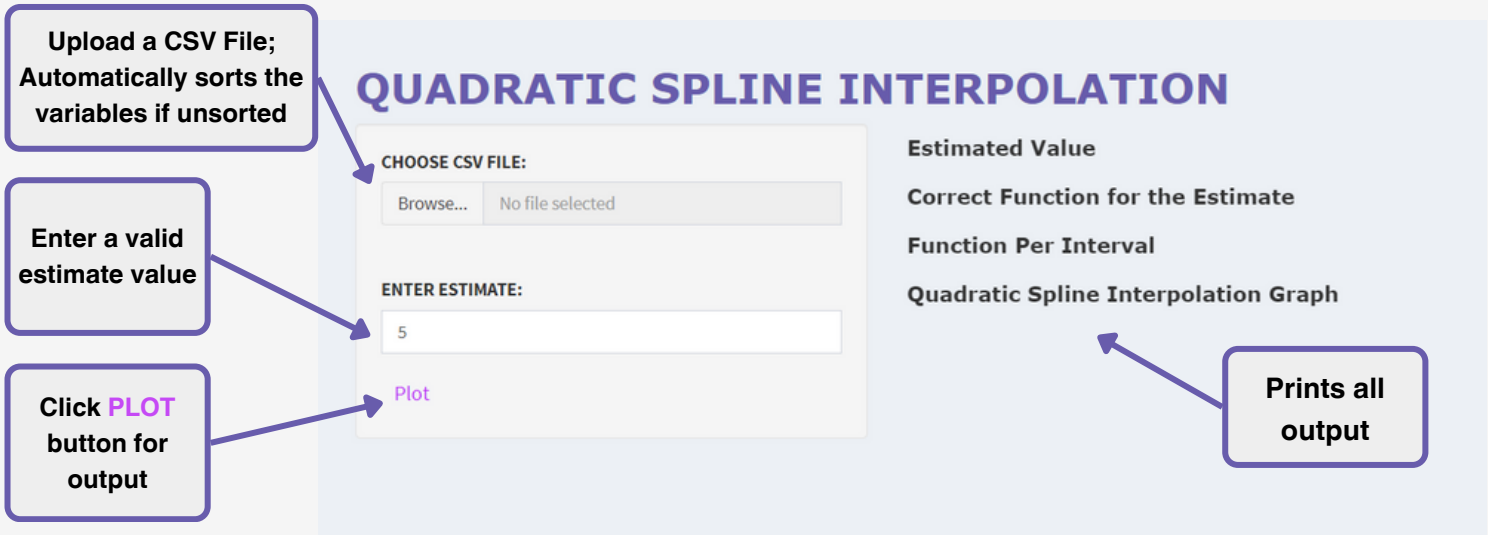
ANARETA, NADINE

CMSC 150 - B2L

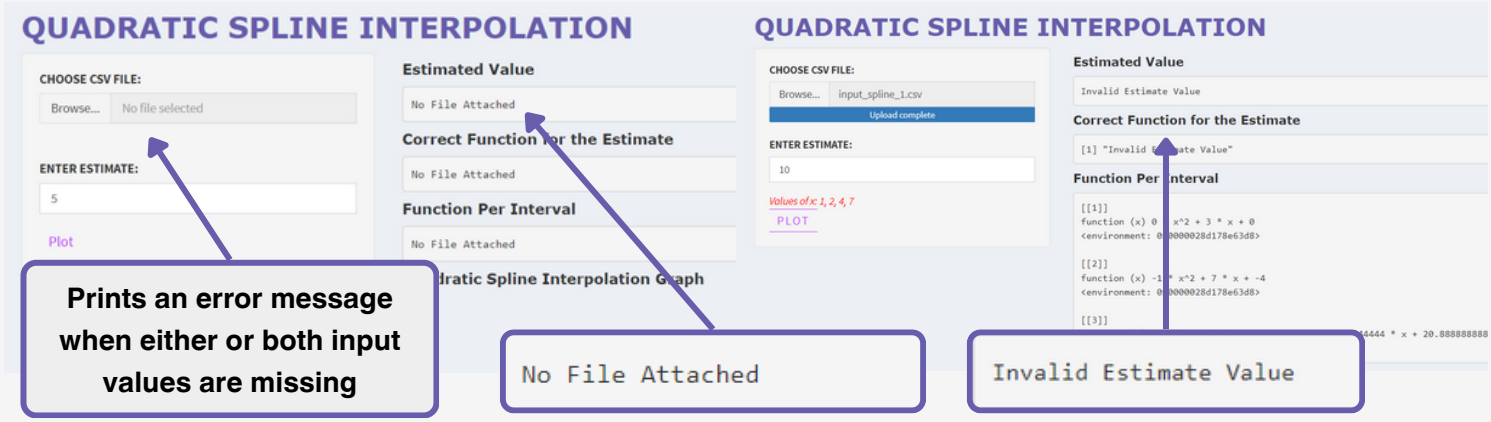
2022 - 12005

QUADRATIC SPLINE INTERPOLATION

Quadratic Spline Interpolation is a method to curve fit data. Piecewise quadratics approximate the data between two consecutive data points, and fit an interpolating quadratic spline through the data.



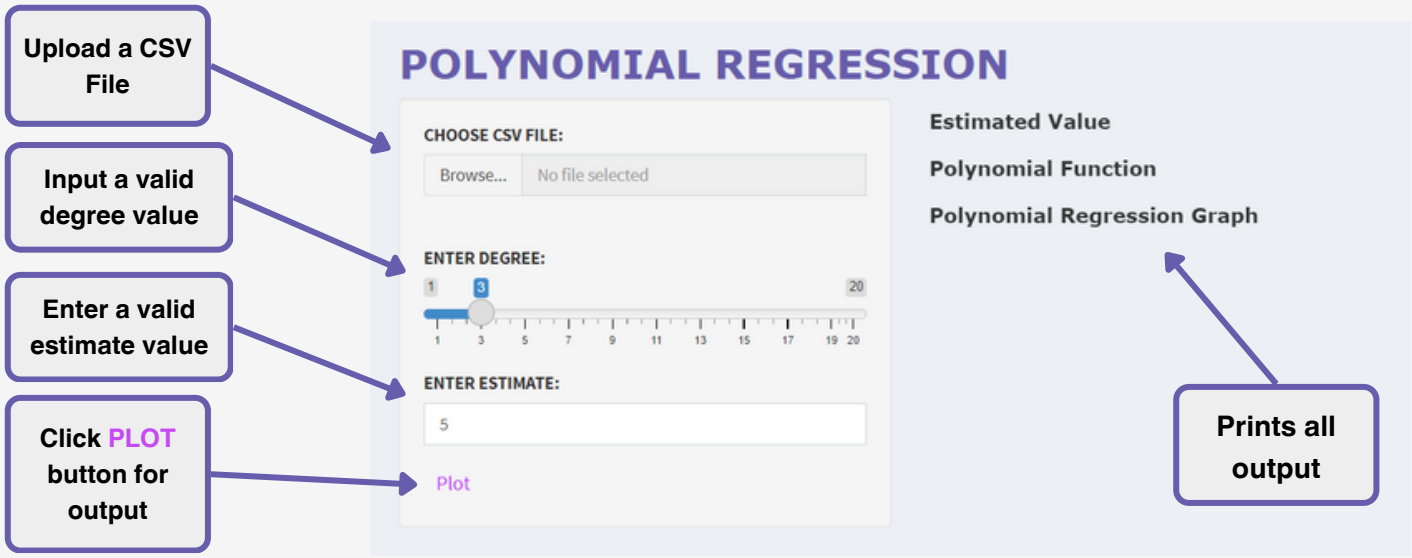
Error and Warning Messages



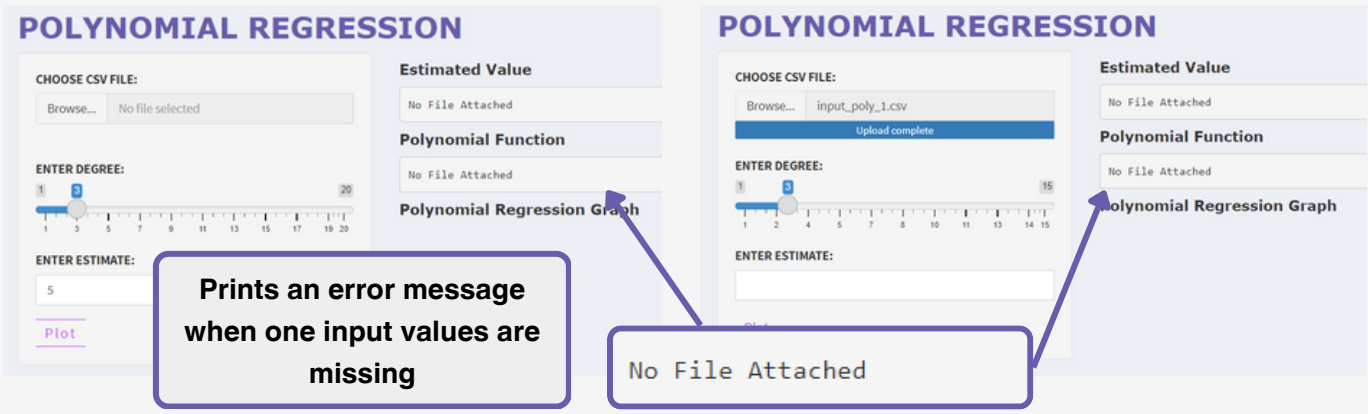
Successful Quadratic Spline Interpolation

POLYNOMIAL REGRESSION

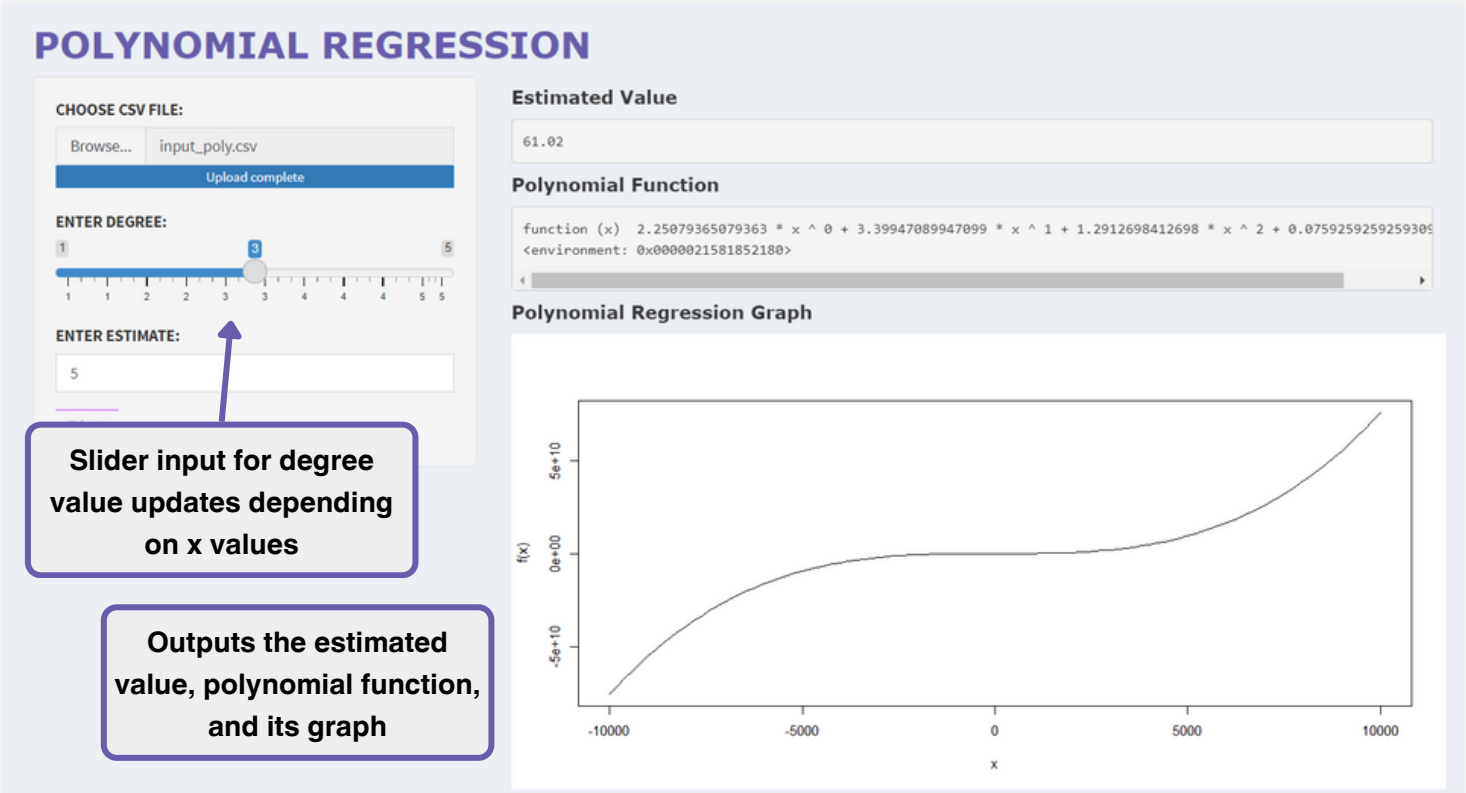
In polynomial regression, it describes the relationship between the independent variable x and the dependent variable y using an nth-degree polynomial in x.



Error and Warning Messages



Successful Polynomial Regression

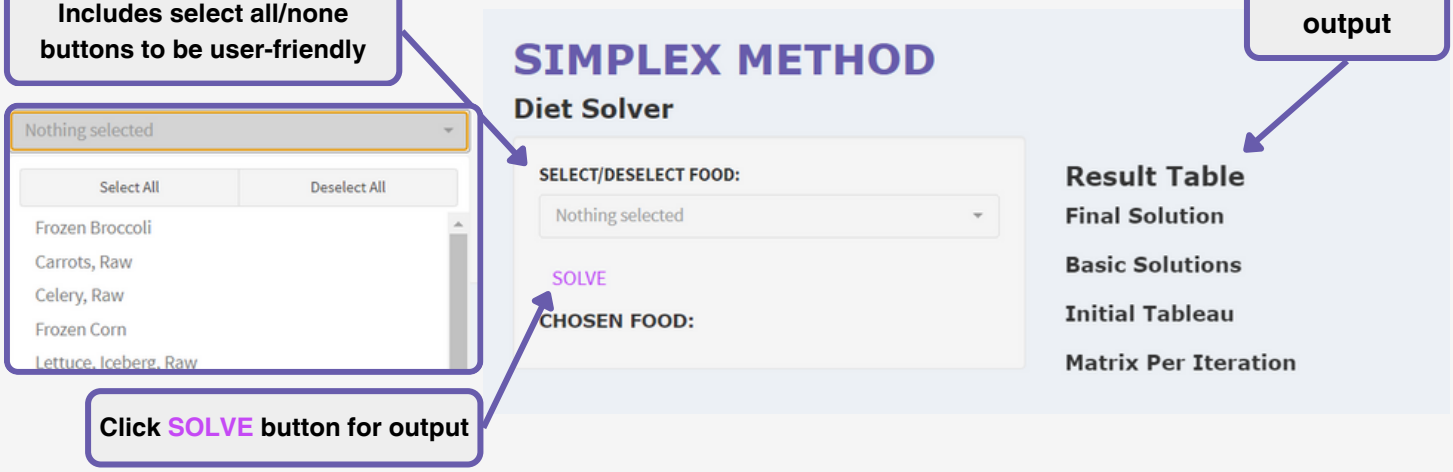


SIMPLEX METHOD FOR MINIMIZATION

One solution to this is by reconstructing our minimization problem to a maximization problem by converting it to a dual problem and using the simplex method that we've discussed before to solve the dual problem.

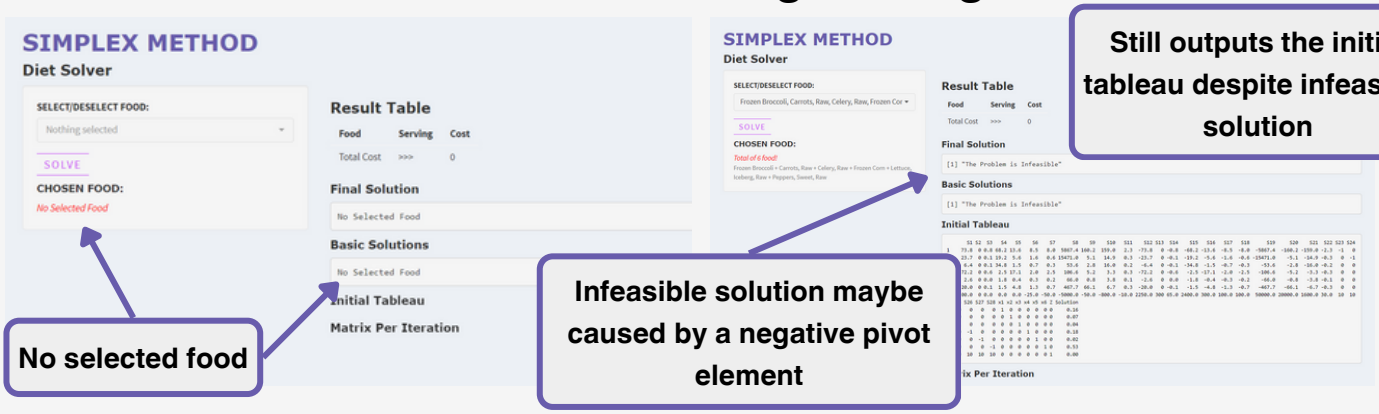
Includes select all/none buttons to be user-friendly

Prints all output



Click SOLVE button for output

Error and Warning Messages

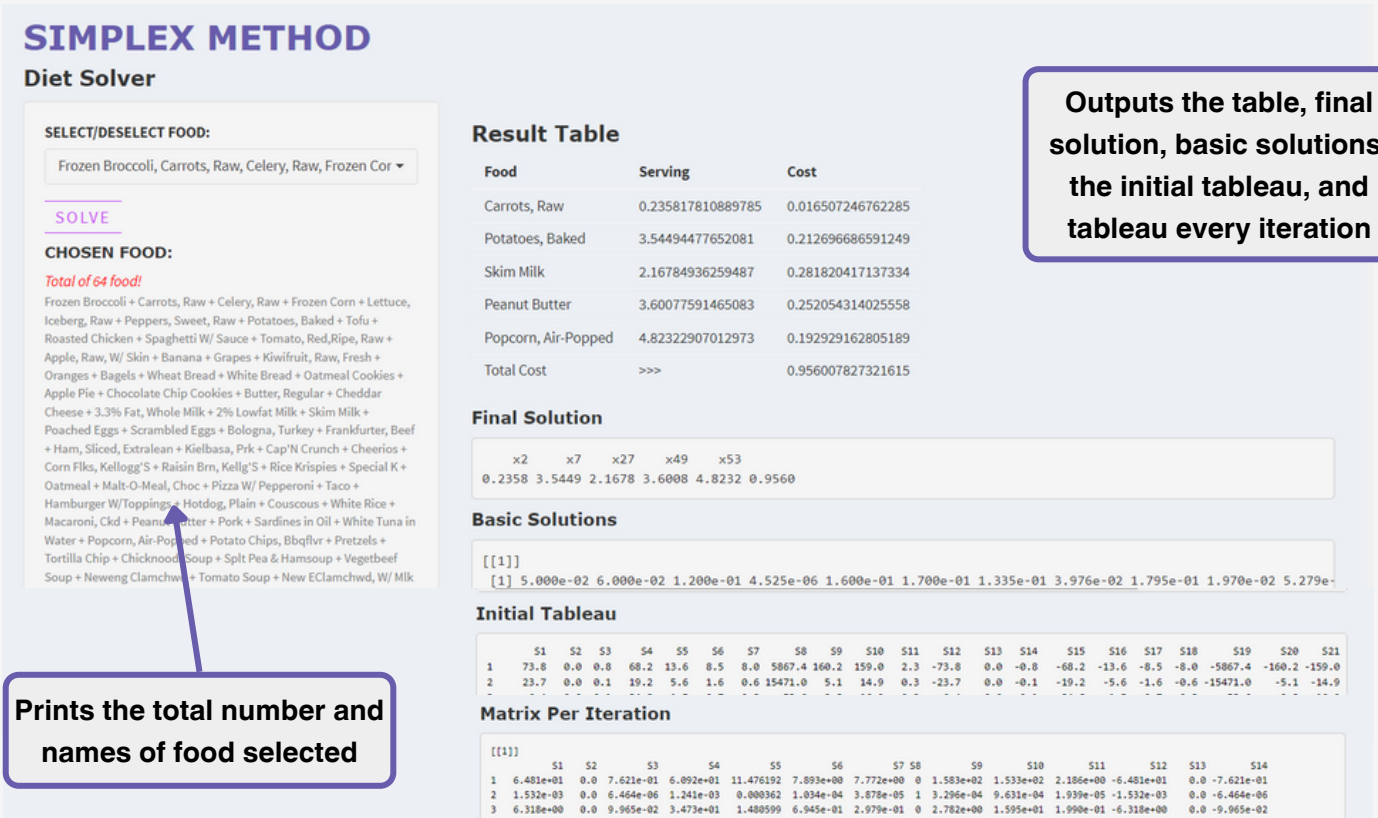


Still outputs the initial tableau despite infeasible solution

No selected food

Infeasible solution maybe caused by a negative pivot element

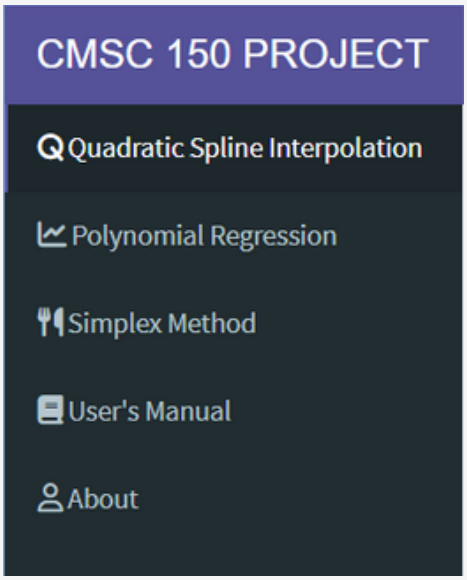
Successful Simplex Method for Minimization



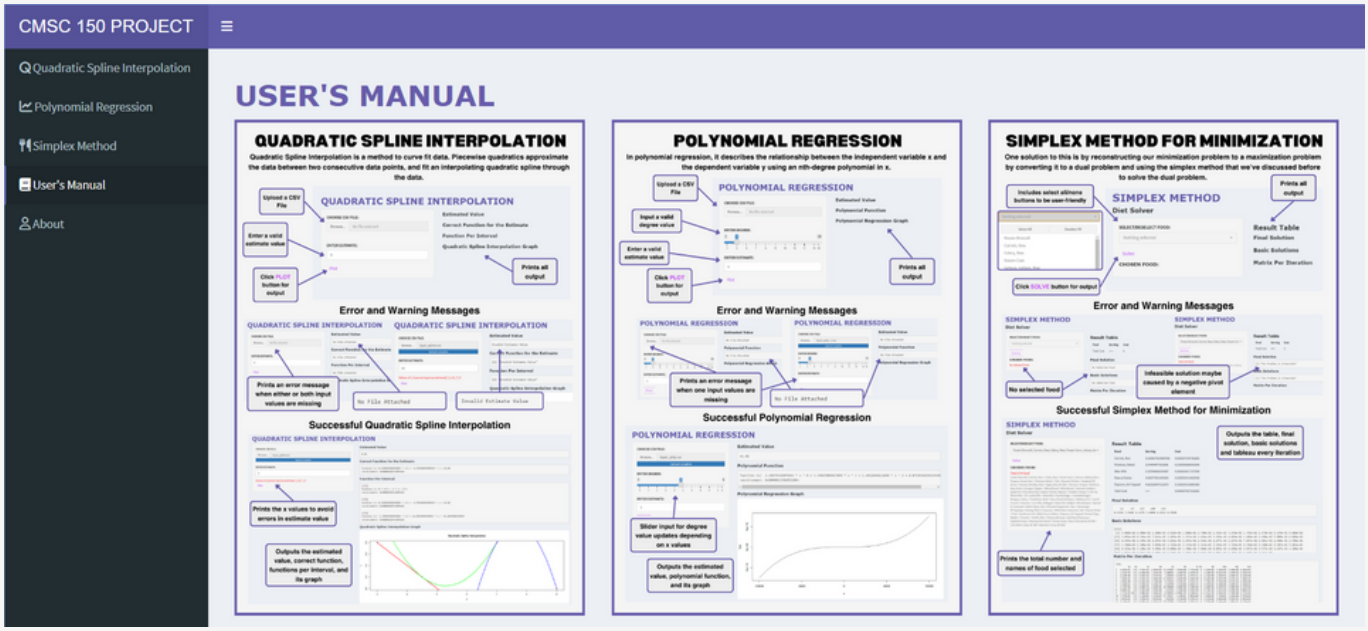
Outputs the table, final solution, basic solutions, the initial tableau, and tableau every iteration

Prints the total number and names of food selected

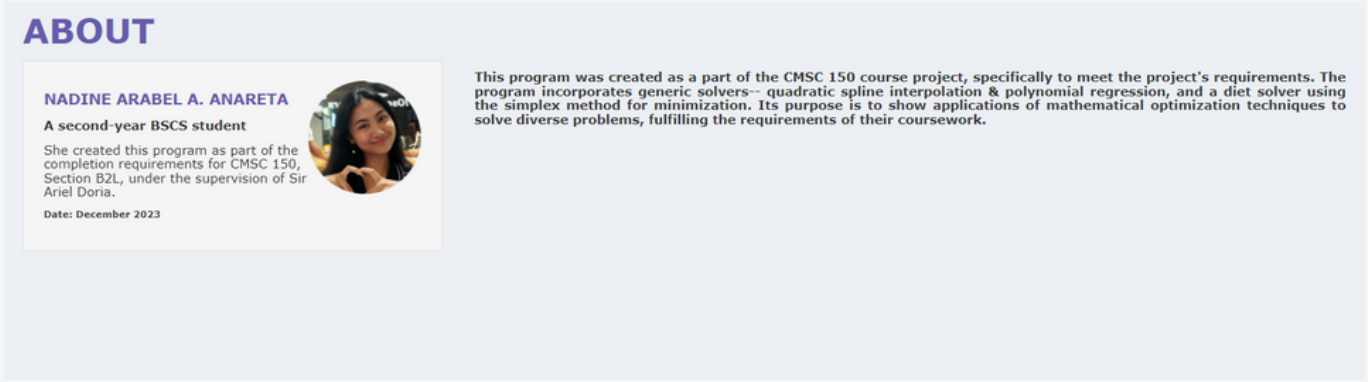
OTHER FEATURES



A sidebar for easy access, the output display can be seen in the body



A copy of the user's manual on the website



Displays about the creator and about the website