

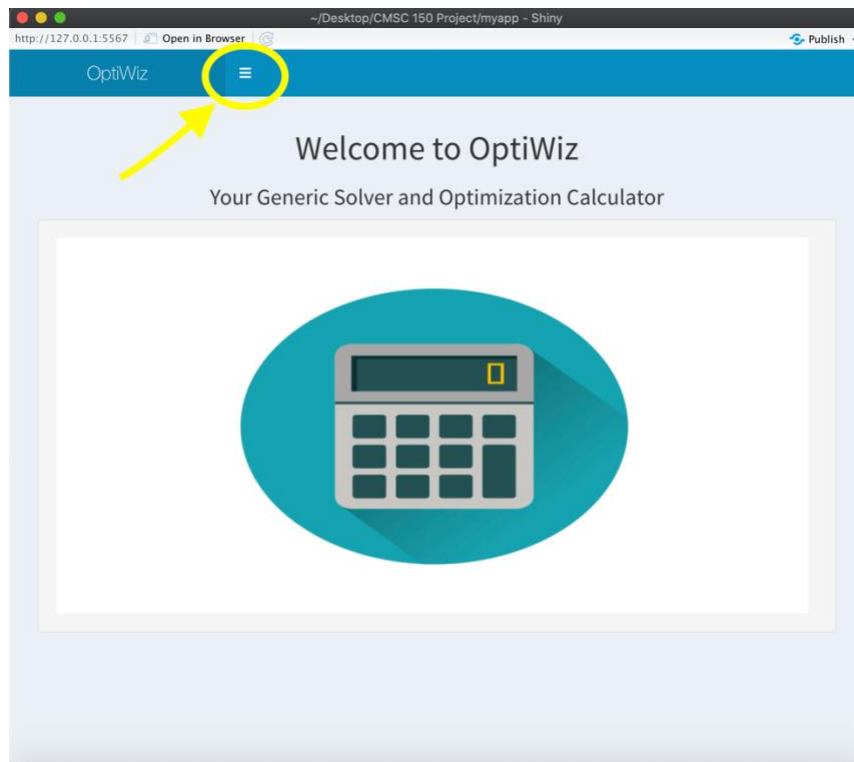
OptiWiz User Manual

I. What is OptiWiz?

OptiWiz is a generic solver and optimization calculator application. It contains solvers and calculators for the particular topics such as Polynomial Regression, Quadratic Spline Interpolation, and Simplex Method.

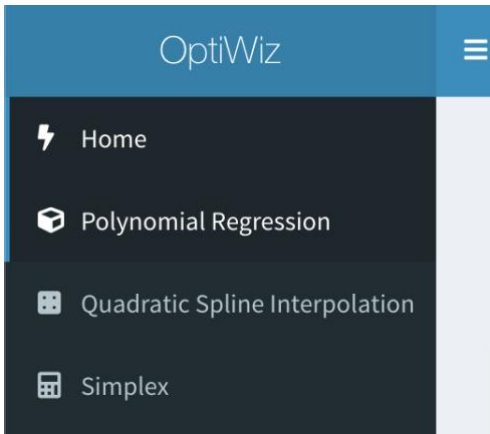
II. How to use the application?

After opening the application, you will be directed to the Home Page.

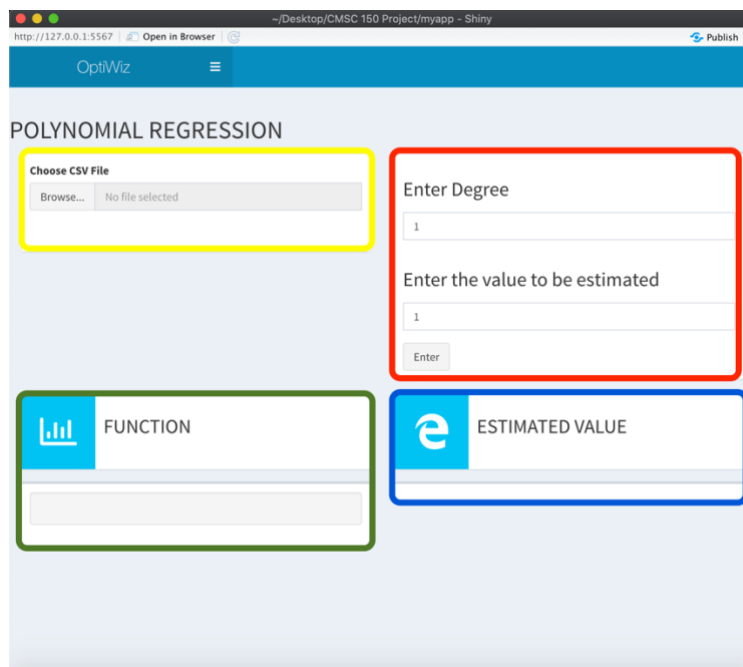


The button inside the yellow circle will help you navigate throughout the app. Let's see what's inside...

Inside the side bar menu, we will see three options namely Polynomial Regression, Quadratic Spline Interpolation, and Simplex. Click the menu of your desired page in order to perform the solvers.



In the **Polynomial Regression** page, you will see 4 different section:



Yellow Mark: File Input (.csv files only)

Red Mark: Numeric inputs for the degree of the function and the value to be estimated

Green Mark: Displays the function depending on the degree input of the user

Blue Mark: Displays the estimated value of the function depending on the value input of the user

In the **Quadratic Spline Interpolation** page, you will also see 4 different section:

Yellow Mark: File Input (.csv files only)

Red Mark: Numeric inputs for the value to be estimated (The value must be within the range of x values)

Green Mark: Displays the function per interval

Blue Mark: Displays the estimated value of the function depending on the value input of the user

Simplex Page (Upper Section)

	Supply	Sacramento	SaltLake	Chicago	Albuquerque	NewYork
Denver	310.00	10.00	8.00	6.00	5.00	4.00
Phoenix	260.00	6.00	5.00	4.00	3.00	6.00
Dallas	280.00	3.00	4.00	5.00	5.00	9.00
Demand	0.00	180.00	80.00	200.00	160.00	220.00

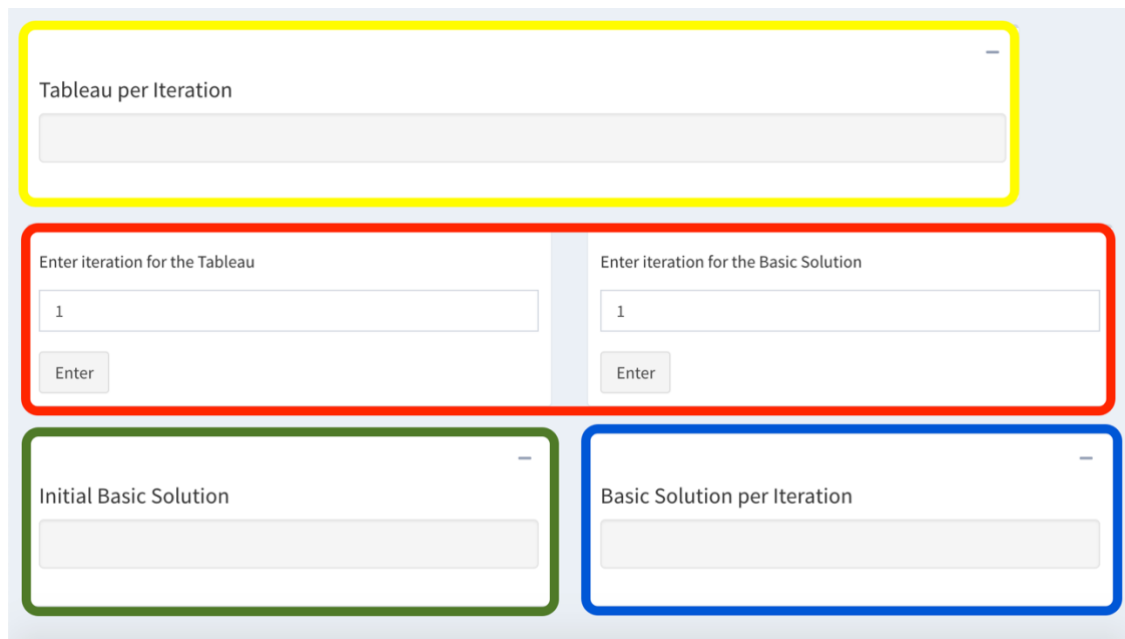
Yellow Mark: Table for the data input (This table is editable for easy data input manipulation)

Red Mark: Displays the minimum shipping cost of the problem based on the data input of the user

Green Mark: Displays the total number of shipping based on the data input of the user

Blue Mark: Displays the initial tableau of the problem

Simplex Page (Lower Section)



The image shows a UI mockup for the 'Simplex Page (Lower Section)'. It features four distinct colored boxes: a yellow box at the top labeled 'Tableau per Iteration'; a red box in the middle containing two input fields labeled 'Enter iteration for the Tableau' and 'Enter iteration for the Basic Solution', both with the value '1' and an 'Enter' button; a green box at the bottom left labeled 'Initial Basic Solution'; and a blue box at the bottom right labeled 'Basic Solution per Iteration'. Each box contains a large, empty rectangular area for data display.

Yellow Mark: Displays the specific iteration of the tableau depending on the numeric input by the user

Red Mark: Numeric input for the desired iteration of the user (The one on the left side is for the tableau and the one right side is for the Basic Solution)

Green Mark: Displays the initial table for the basic solution

Blue Mark: Displays the specific iteration of the Basic Solution depending on the numeric input by the user

III. About the Developer

Daniel Pete M. Aguilar is an undergraduate BS Computer Science student at University of the Philippines Los Baños. He loves food and he also play basketball. He lives in the City of Valenzuela, also known as the Vibrant City.