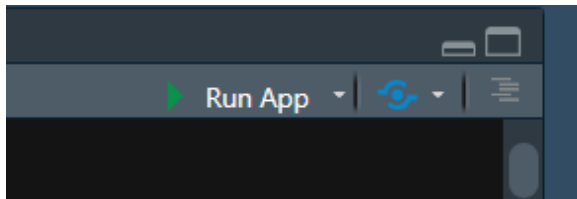


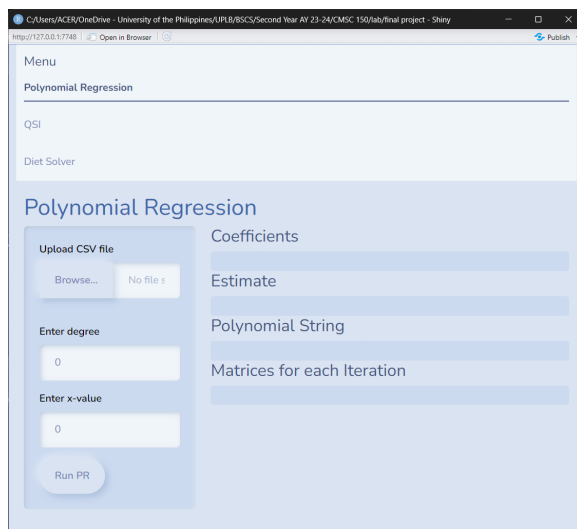
USER MANUAL

Created by: **Joseffe Rose Ong**

1. Type in the console the following:
 - a. `Install.packages("shiny")`
 - b. `Install.packages("shinydashboard")`
 - c. `Install.packages("bslib")`
2. Click the "Run App" in the top right corner of the script file "UI.R".



This window will pop-up (not in full screen):



3. See the navigation bar on top of the window. Select any of the tab of your choice depending on your purpose:



3.1. For Polynomial Regression:

Polynomial Regression

Upload CSV file

Browse... No file selected

Enter degree

0

Enter x-value

0

Run PR

- Input the following:
 - CSV file
 - Degree
 - X-value
- Click "Run PR" to get the following results:

Coefficients

Estimate

Polynomial String

Matrices for each Iteration

- The following warning notification shall be displayed if:
 - Incomplete data in CSV file

Please input a csv file with complete data. ✕

- Degree is not within range $[1, n-1]$.

Please input a value within range. ✕

3.2. For QSI (Quadratic Spline Interpolation)

Quadratic Spline Interpolation

Upload CSV file

Browse... No file selected

Enter point estimate

0

Run QSI

- Input the following:
 - CSV file
 - Point estimate
- Click “Run QSI” to get the following results:

Functions per Interval

X-interval

Correct Function

Estimate

Matrices for each Iteration

- The following warning notification shall be displayed if:
 - Data in CSV file is incomplete

Please input a csv file with complete data. ✕

- If the data points in the CSV file is less than three(3)

Please input a csv file with a minimum of three(3) data points. ✕

- If the point estimate is not within range ($n_{\text{first}} < \text{point_estimate} < n_{\text{last}}$)

Please input a value within range. ✕

3.3. For Diet Problem

Diet Solver

Select Food

- ☐ Frozen Broccoli
- ☐ Carrots,Raw
- ☐ Celery, Raw
- ☐ Frozen Corn
- ☐ Lettuce,Iceberg,Raw
- ☐ Peppers, Sweet, Raw
- ☐ Potatoes, Baked
- ☐ Tofu
- ☐ Roasted Chicken
- ☐ Spaghetti W/ Sauce
- ☐ Tomato,Red,Ripe,Raw
- ☐ Apple,Raw,W/ Skin
- ☐ Banana
- ☐ Grapes
- ☐ Kiwifruit,Raw, Fresh
- ☐ Oranges
- ☐ Bagels
- ☐ Wheat Bread
- ☐ White Bread

- Input the following:
 - Food choices (select as many as you want)
 - You can “Select All” or “Reset choices” by clicking the button/s:

Run Select all Reset choices

- Click “Run” to get the following results:

Food choices

Optimal Cost

Optimal Menu

Basic Solution for each iteration

Matrices for each Iteration

- The following warning notification shall be displayed if:
 - The selected foods for the diet problem is not feasible

Not Feasible. ✕