Concordia University
Engineering and Computer Science

Documentation of Metricstics

Submitted by

Het Jatin Dalal	40200513
Abderraouf Drine	40225137
Chae Dickie-Clark	23345718
Protim Ghosh	40185075
Abhishek Deswal	40220734

SOFTWARE MEASUREMENT

SOEN 6611

Group D

Fall 2023

1   Installation

Metricstics can be installed by cloning the repository from `https://github.com/MajorTreble/Metricstics`.
It requires Python 3.8+ to run.

Install the requirements using

```
pip install -r requirements.txt
```

From the root folder, run the app using

```
python metricstics/src/app.py
```

2   Usage

1. **Read Data:** Following screenshot shows how to use read data functionality along with the results.
   On pressing this button, the system will read data from its database(File in our case) and after that
   user can press other buttons(functionality) as per need to obtain different results
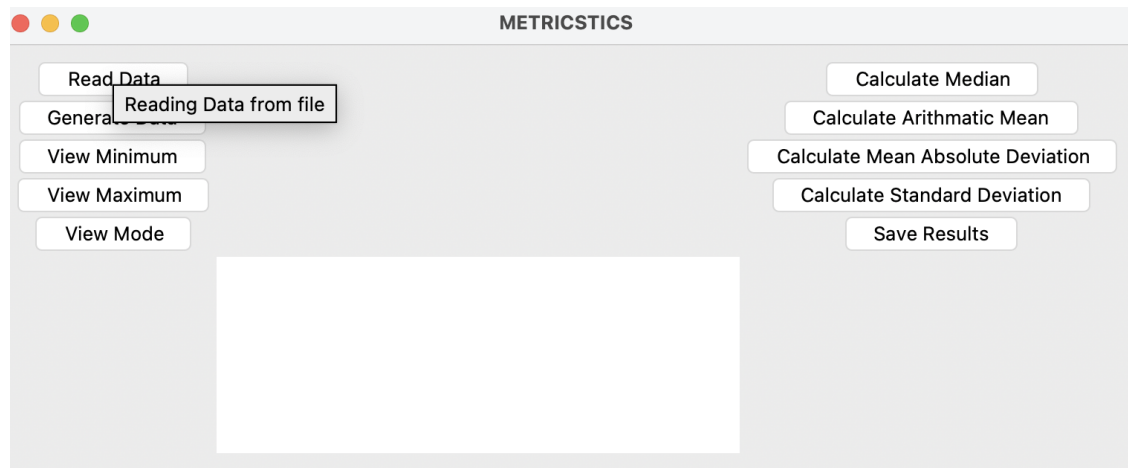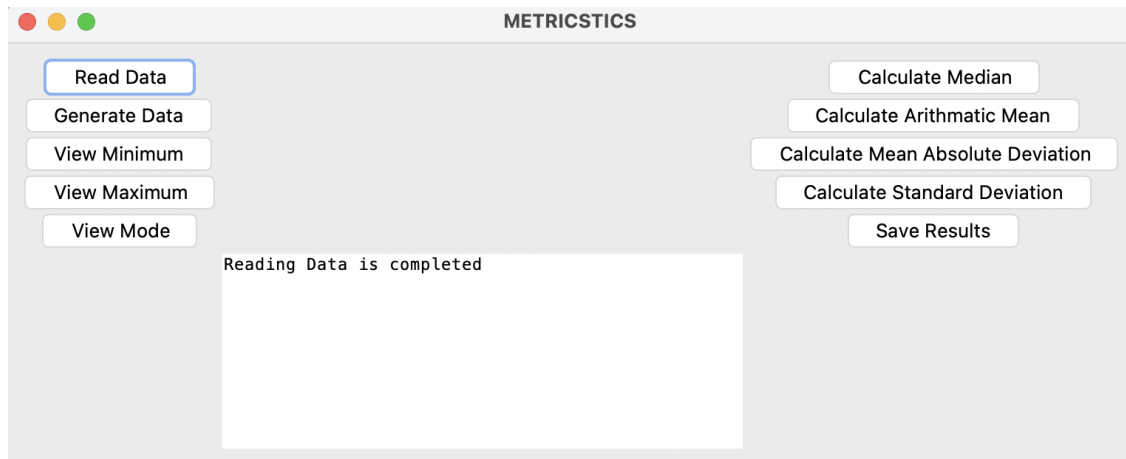

Figure 1: How to use Read Data functionality

Figure 2: Read Data Results

2. **Calculate Minimum:** Following screenshot shows how to use view minimum functionality along with the results. On pressing this button, the system will give you minimum number from the list of elements (if generated using generate data or if read from file)
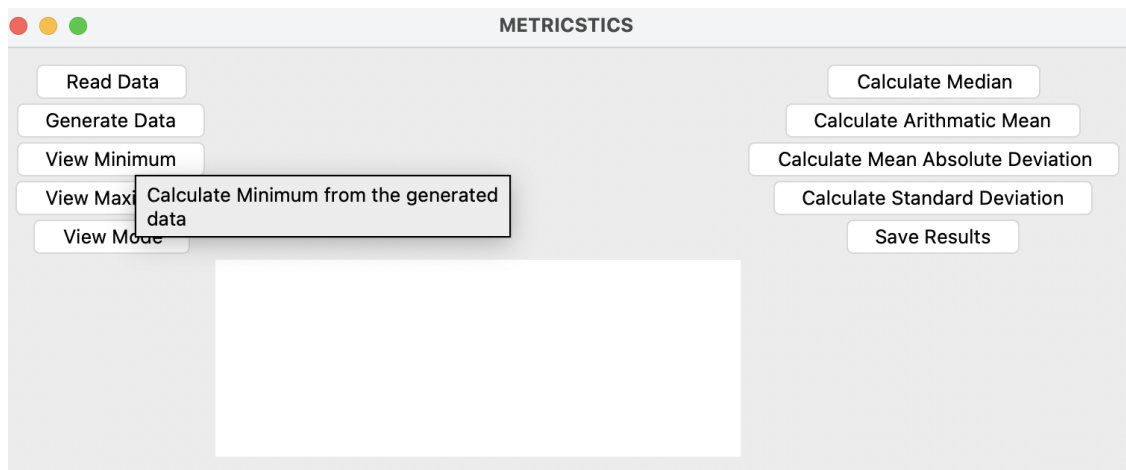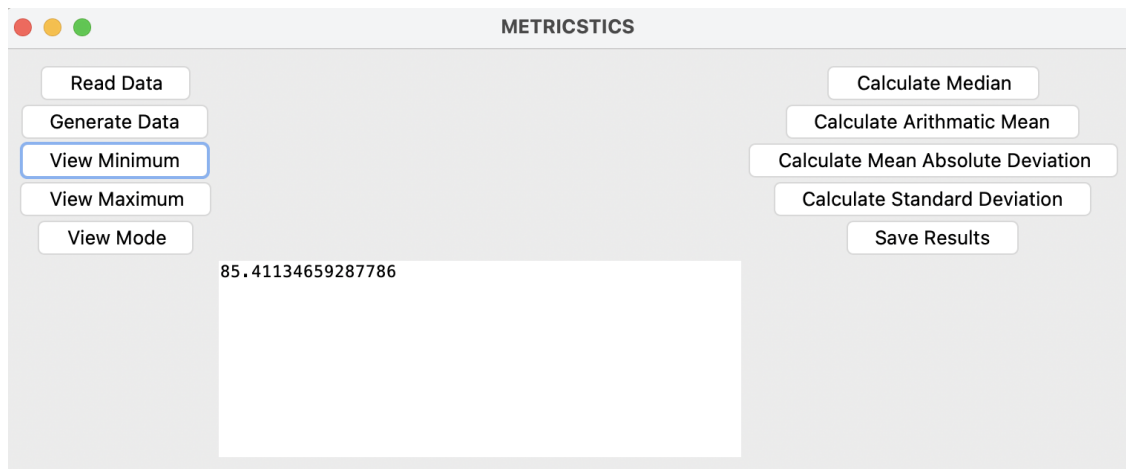

Figure 3: How to use View Minimum functionality

Figure 4: View Minimum Results

3. **Calculate Maximum:** Following screenshot shows how to use view maximum functionality along with the results. On pressing this button, the system will give you maximum number from the list of elements (if generated using generate data or if read from file)
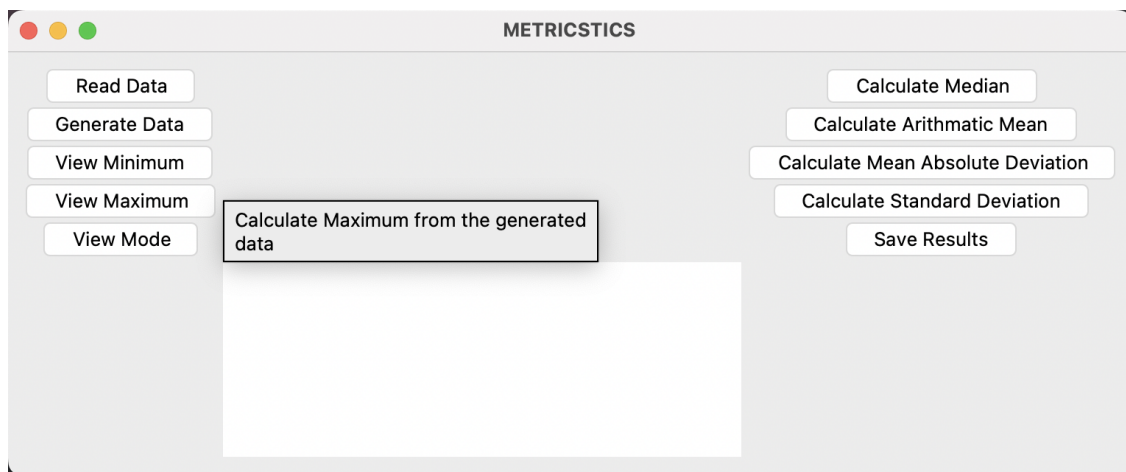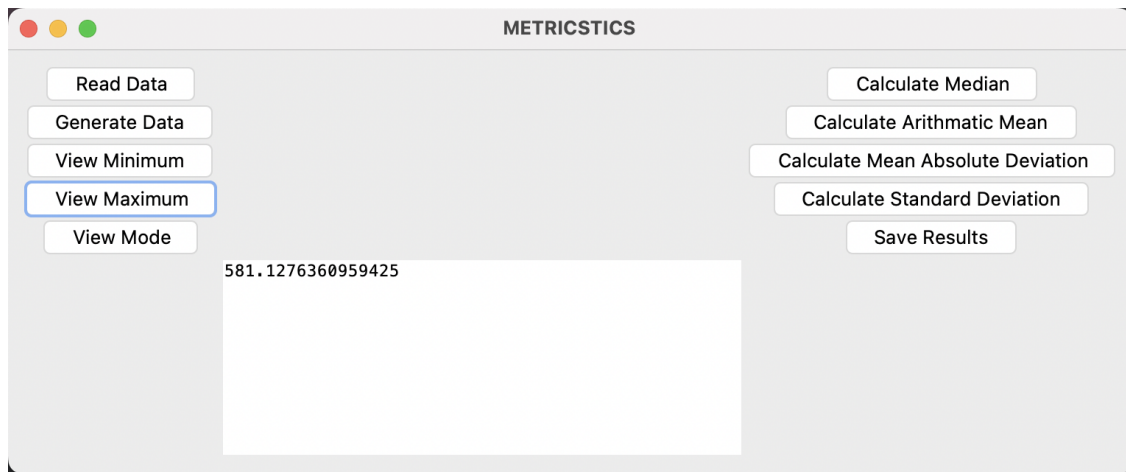

Figure 5: How to use View Maximum functionality

Figure 6: View Maximum Results

4. **Generate Data:** The Following screenshot shows how to use generate data functionality along with the results.On hovering on the button the system will display a tool tip of what button does. On pressing this button, the system will display the random generated data.
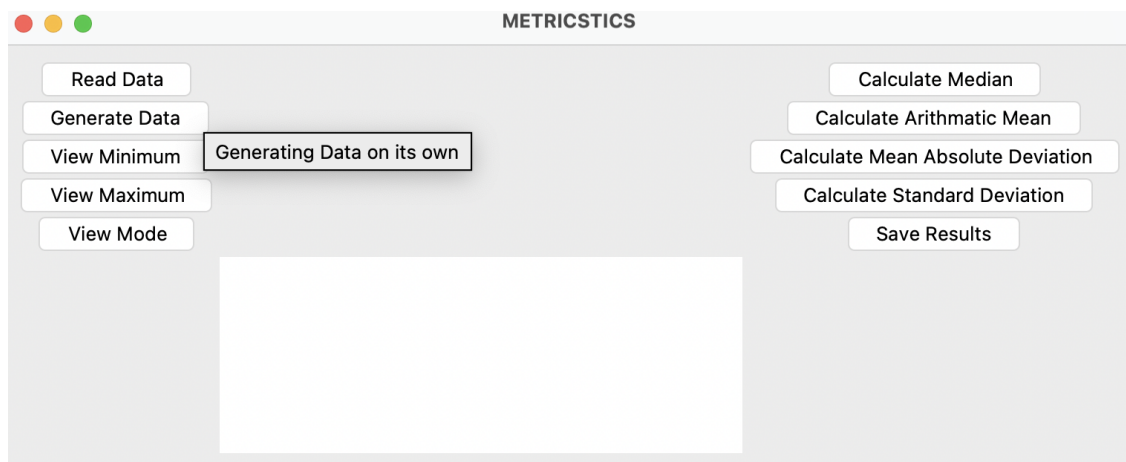

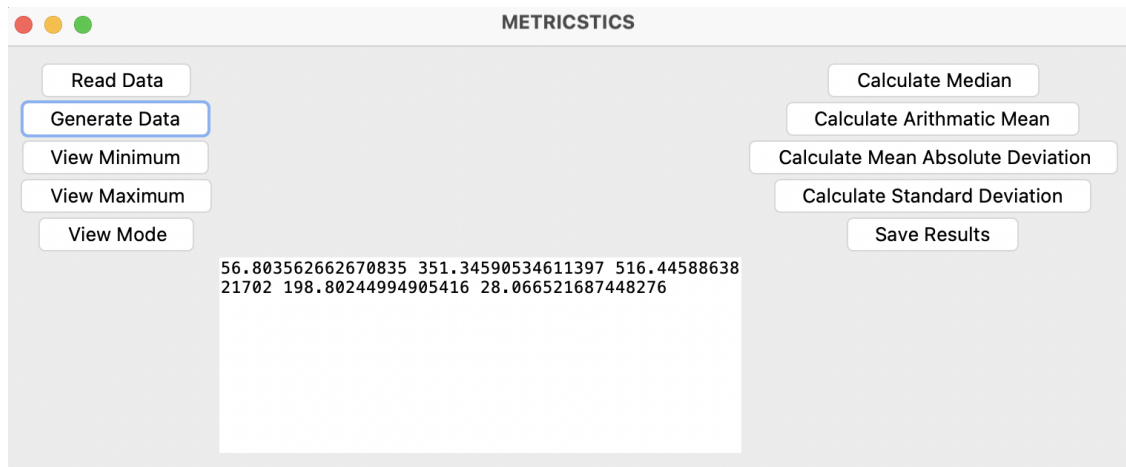Figure 7: How to use Generate Data functionality

Figure 8: Generate Data Results

5. **Calculate Median:** The Following screenshot shows how to use calculate median functionality along with the results.On hovering on the button the system will display a tool tip of what button does. On pressing this button, the system will display the median of the data set.
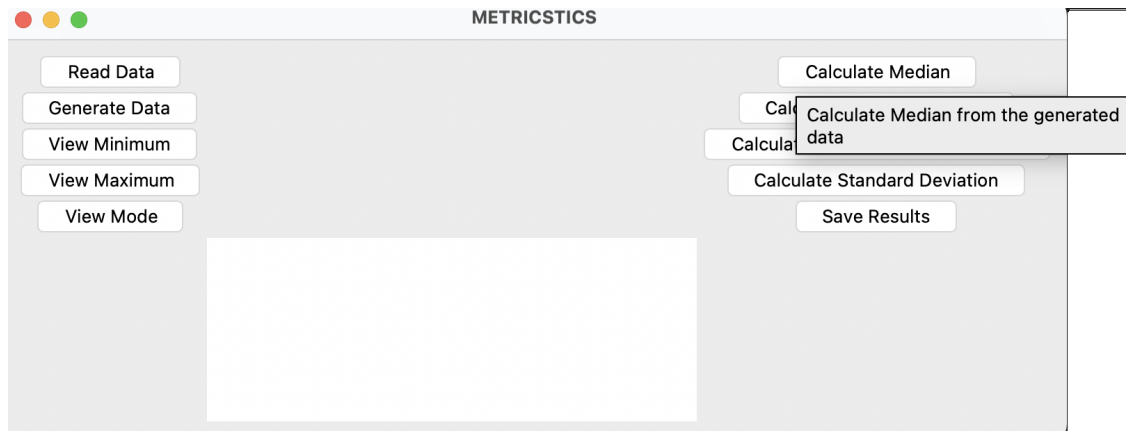

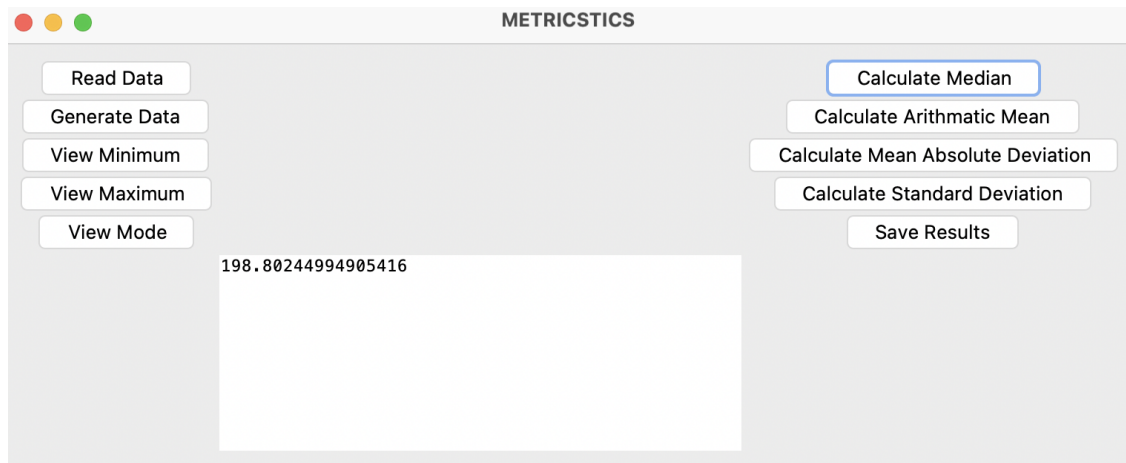Figure 9: How to use Calculate Median functionality

Figure 10: Calculate Median Results

6. **Calculate Mode:** Following screenshot shows how to use view mode functionality along with the results. On pressing this button, the system will give you mode from the list of elements (if generated using generate data or if read from file)
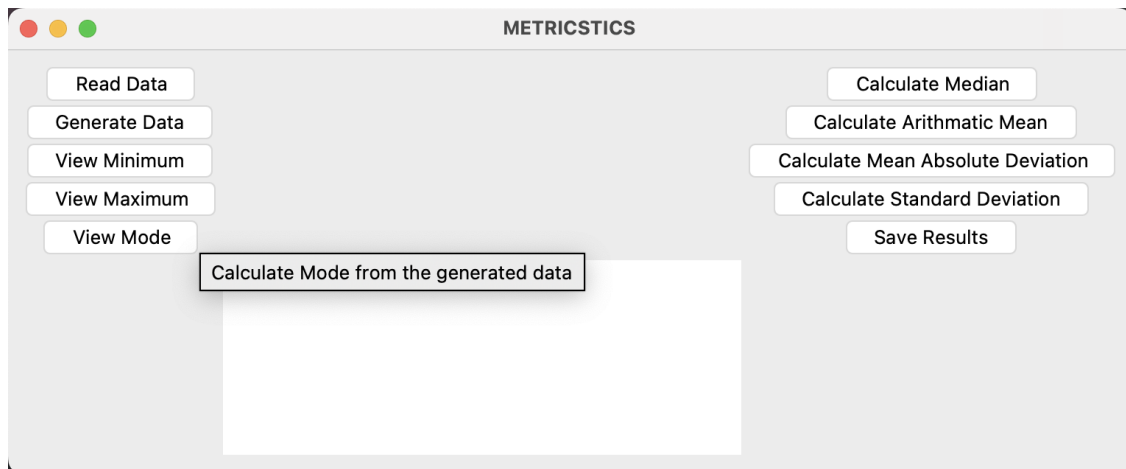

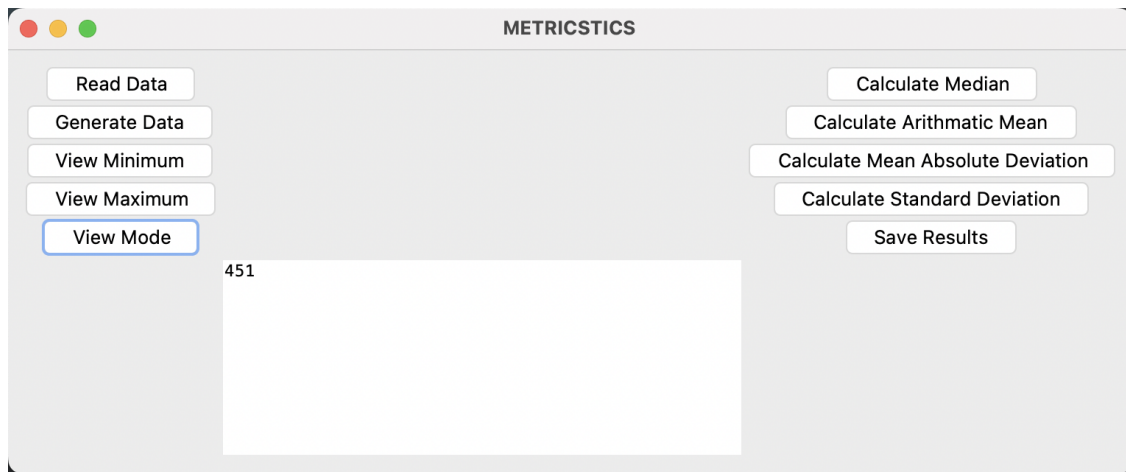Figure 11: How to use View Mode functionality

Figure 12: View Mode Results

7. **Calculate Arithmetic Mean:** After reading or generating data, choose Calculate Arithmetic Mean. The result is displayed in the text box.
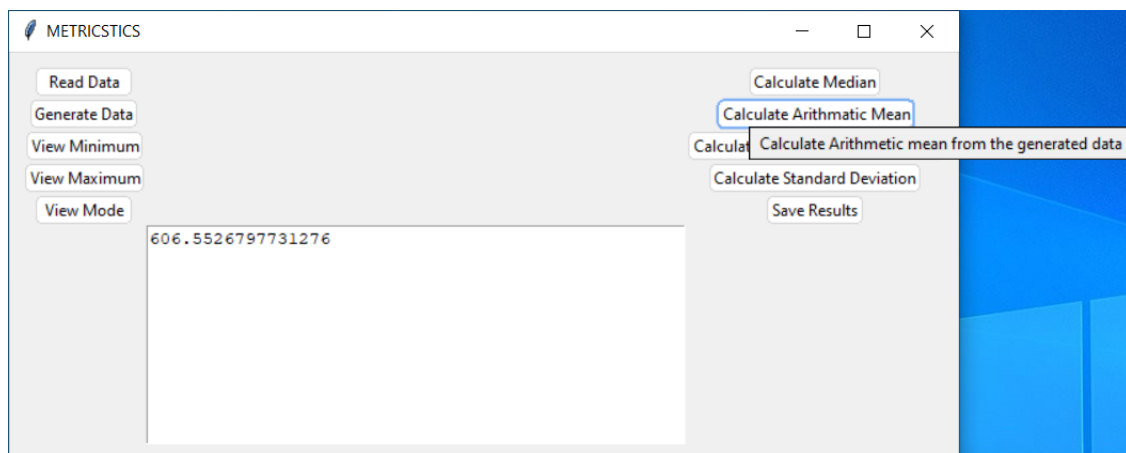

Figure 13: How to use Calculate Arithmetic Mean

8. **Calculate Mean Absolute Deviation:** After reading or generating data, choose Calculate Mean Absolute Deviation. The result is displayed in the text box.
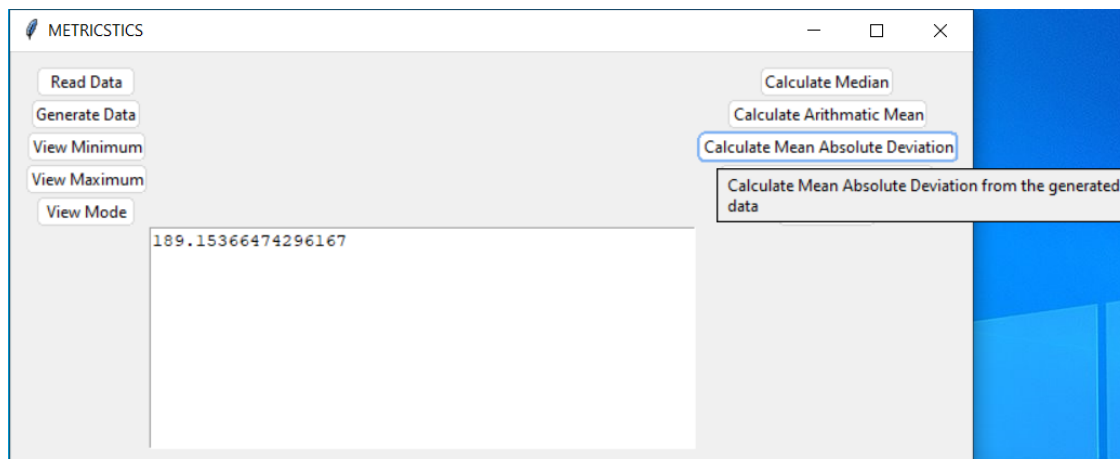

Figure 14: How to use Calculate Mean Absolute Deviation

9. **Calculate Standard Deviation:** After reading or generating data, choose Calculate Standard Deviation. The result is displayed in the text box.
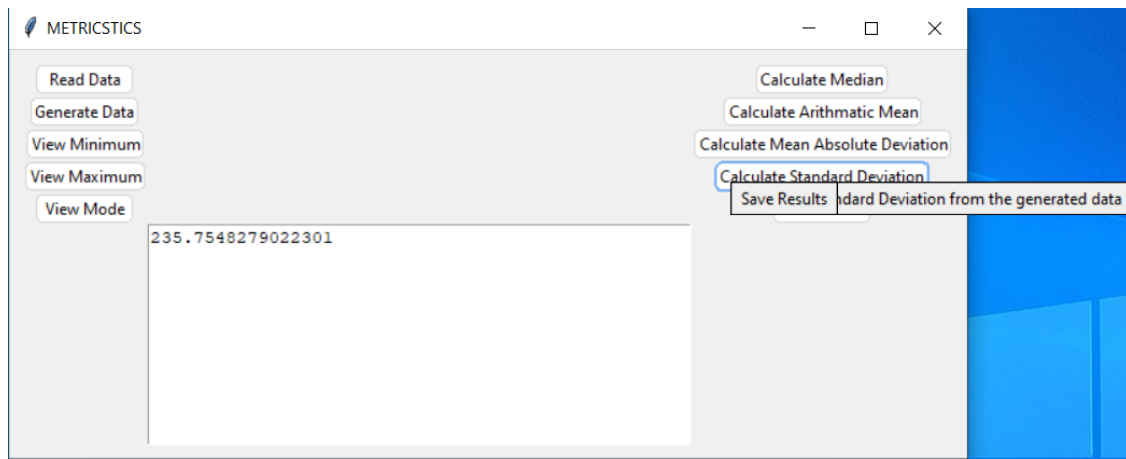
Figure 15: How to use Calculate Standard Deviation

10. **Save Button:** Following screenshot shows the functionality of save results. On pressing this button, the system will calculate all the seven calculations: minimum , maximum values, median , mode, Arithmetic mean, Mean Absolute Deviation and Standard Deviation and display the result on the view. Once it displays the result on the view it prompts for a save file dialog box and once the user saves it on their preferred directory, the file gets saved and its path is displayed on the view.
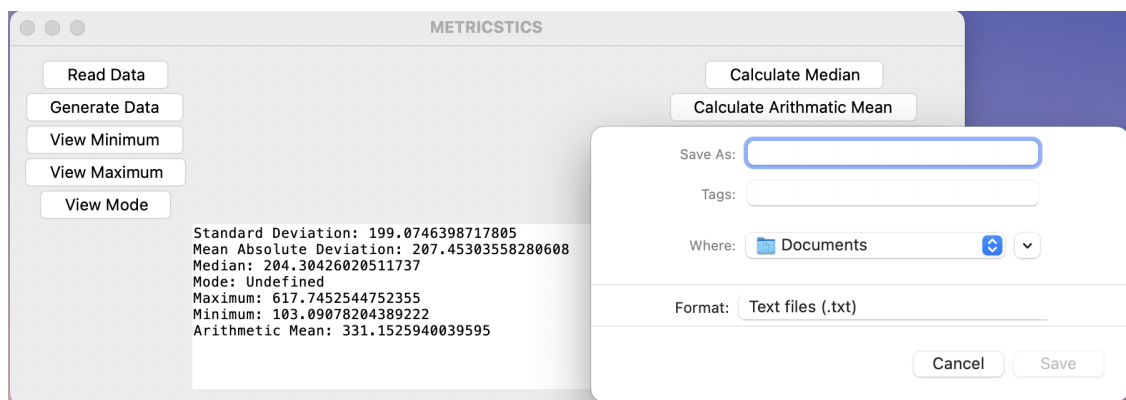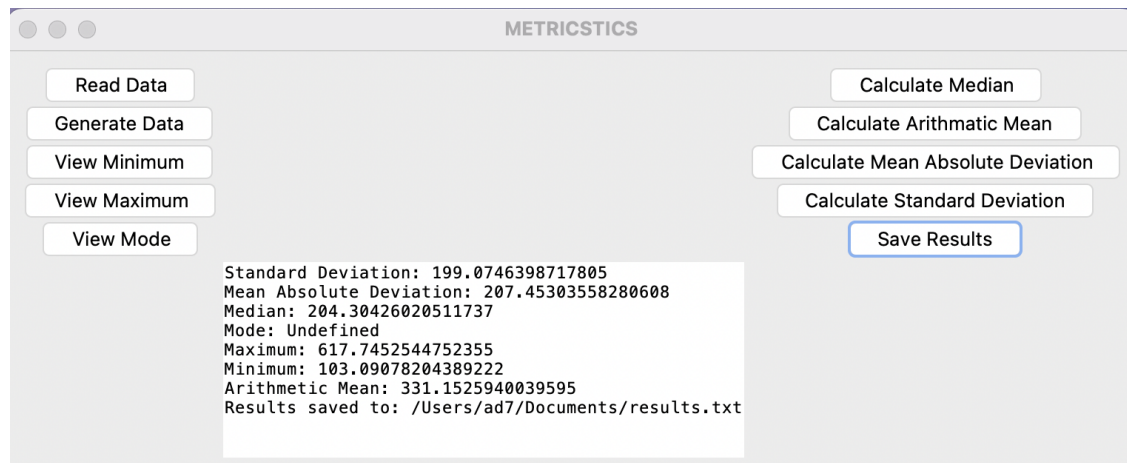

Figure 16: How to use Save Button functionality

Figure 17: How to use Save Button functionality