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DAA Project
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Instruction to run the project

There are four files in the project folder,

1. Sorting_algorithms.py (implementation of all the algorithms)
2. Sorting_Algorithms_gui.py (GUI of the algorithms)
3. Sadashiva_Project_document.pdf (Documentation of the project)
4. README.pdf

Sorting_algorithms.py file has only implementation of the algorithms. We need to run Sorting_Algorithms_gui.py file to get the project running.

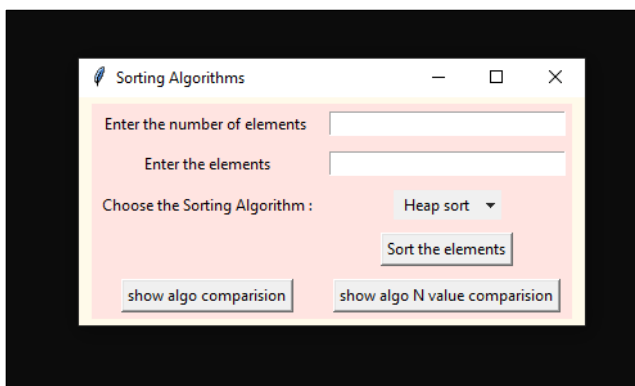
Steps to follow:

1. open command prompt(windows) or terminal(mac)
2. go to the directory in which the project file is saved.
3. Type
python Sorting_Algorithms_gui.py

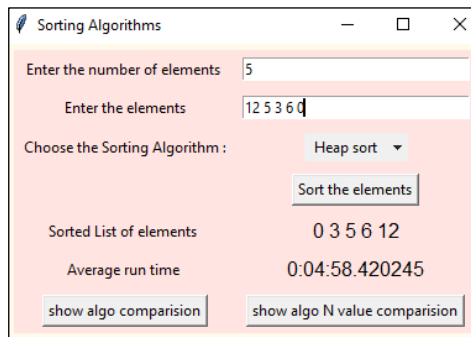
```
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

D:\sowjanya\MS 2nd Sem\DAA\DAA_Project>python Sorting_Algorithms_gui.py
```

And hit enter, we get a GUI as shown below.



4. Enter the number of elements, list of elements ***with the single space between the elements***, select the sorting algorithm and click on sort the elements as shown below.



The screenshot shows a window titled "Sorting Algorithms" with a light pink background. It contains the following elements:

- A label "Enter the number of elements" followed by a text input field containing the value "5".
- A label "Enter the elements" followed by a text input field containing the values "12 5 3 6 0".
- A label "Choose the Sorting Algorithm :" followed by a dropdown menu currently showing "Heap sort".
- A button labeled "Sort the elements".
- A label "Sorted List of elements" followed by the text "0 3 5 6 12".
- A label "Average run time" followed by the text "0:04:58.420245".
- Two buttons at the bottom: "show algo comparison" and "show algo N value comparison".

5. Click on show algo comparison to get a graph of run time comparison between the entered elements.
6. Click on show algo N value comparison to get the graph of run time comparison of algorithm with N randomly generated values.