

CS 104 Homework 4
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Professor Kempe, M W 12:30PM

Question 2 Part D:

The results of the time elapsed for each insertion amount and array time:

```
Stephens-MacBook-Pro:Question_2 stephensher$ ./HW4Q3
-----
      Add One Array
-----
The time elapsed in seconds for 2000 insertions is: 0.0143472
The time elapsed in seconds for 4000 insertions is: 0.0554356
The time elapsed in seconds for 6000 insertions is: 0.125837
The time elapsed in seconds for 8000 insertions is: 0.264481
The time elapsed in seconds for 10000 insertions is: 0.534409
-----
      Double Size Array
-----
The time elapsed in seconds for 2000 insertions is: 0.0064302
The time elapsed in seconds for 4000 insertions is: 0.0247667
The time elapsed in seconds for 6000 insertions is: 0.0568031
The time elapsed in seconds for 8000 insertions is: 0.0999134
The time elapsed in seconds for 10000 insertions is: 0.155658
-----
      Add 10 Percent Array
-----
The time elapsed in seconds for 2000 insertions is: 0.0069124
The time elapsed in seconds for 4000 insertions is: 0.0248878
The time elapsed in seconds for 6000 insertions is: 0.0570057
The time elapsed in seconds for 8000 insertions is: 0.0979103
The time elapsed in seconds for 10000 insertions is: 0.154982
-----
      Linked List
-----
The time elapsed in seconds for 2000 insertions is: 0.0169394
The time elapsed in seconds for 4000 insertions is: 0.0603843
The time elapsed in seconds for 6000 insertions is: 0.135822
The time elapsed in seconds for 8000 insertions is: 0.233285
The time elapsed in seconds for 10000 insertions is: 0.364938
Stephens-MacBook-Pro:Question_2 stephensher$ █
```

Graphical Representation:

Homework 4 Question 2: Analysis of Time for Insertion for Different Array Expansion Methods

