

CSE 102 HW10 REPORT

Explanation:

In this homework, we've calculated time difference between dynamic memory and linkedlist methods. At first my linkedlist algorithm were taking like 30 minutes to fill all 1 million numbers. Then I worked on it (Explained in comment lines) reduced it to 0.3 second.


If we compare the taken time between Dynamic Memory method and LinkedList method;

Dynamic memory method was little bit faster than LinkedList method.(like 1-2 seconds).

But sometimes my linkedlist algorithm worked faster than Dynamic memory algorithm.

As you can see in pictures:

Printing all numbers in Dynamic method:



```
yusuf@ubuntu: ~/Desktop/Homeworks/HW10
Dynamic : 415817
Dynamic : 415818
Dynamic : 415819
Dynamic : 415820
Dynamic : 415821
Dynamic : 415822
Dynamic : 415823
Dynamic : 415824
Dynamic : 415825
Dynamic : 415826
Dynamic : 415827
Dynamic : 415828
Dynamic : 415829
Dynamic : 415830
Dynamic : 415831
Dynamic : 415832
Dynamic : 415833
Dynamic : 415834
Dynamic : 415835
Dynamic : 415836
Dynamic : 415837
Dynamic : 415838
Dynamic : 415839
Dynamic : 415840
```

Printing all numbers in LinkedList method:



```
yusuf@ubuntu: ~/Desktop/Homeworks/HW10
LinkedList 165089
LinkedList 165103
LinkedList 165133
LinkedList 165161
LinkedList 165173
LinkedList 165181
LinkedList 165203
LinkedList 165211
LinkedList 165229
LinkedList 165233
LinkedList 165247
LinkedList 165287
LinkedList 165293
LinkedList 165311
LinkedList 165313
LinkedList 165317
LinkedList 165331
LinkedList 165343
LinkedList 165349
LinkedList 165367
LinkedList 165379
LinkedList 165383
LinkedList 165391
LinkedList 165397
```

Dynamic Memory Speed:

```
1 0 - 500000 Dynamic Memory calc time is is 21.800
2 0 - 750000 Dynamic Memory calc time is 44.224
3 0 - 1000000 Dynamic Memory calc time is 74.419
```

Linked List Speed:

```
1 0 - 500000 Linkedlist calc time is is 18.139
2 0 - 750000 Linkedlist calc time is 39.364
3 0 - 1000000 Linkedlist calc time is 68.938
```