CSE 102 – HW10
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In my homework I used the following functions:

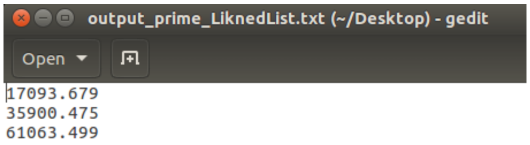
- void readArr(char * fileName,int *arr);
- void readList(char * fileName,linkList * list);
- void freeEm(linkList * list);
- void isPrmArr(int * arr,int num);
- void isPrmList(linkList * list,int num);
- void writeArr(int * arr);

My program has two distinct functions to read from the file “data.txt” for linked list and array. By these functions all numbers in data.txt are recorded into a linked list and a dynamic array separately. Since I was not asked to show this data, I did not show it on console nor on file.

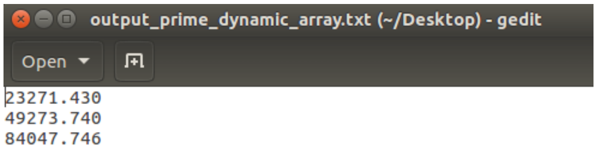
After this the sub-programs isPrmArr and isPrmList search the data which recorded into dynamic array and linked list and find, then show the prime numbers respectively. While sub-programs are working, clock() function is being used to measure the running time of each sub-program for the following intervals:

1) Between 1 and 500.000
2) Between 1 and 750.000
3) Between 1 and 1.000.000.

After the measurement is done for each sub-program, the result is being written into the output_prime_LiknedList.txt and output_prime_dynamic_array.txt files respectively.

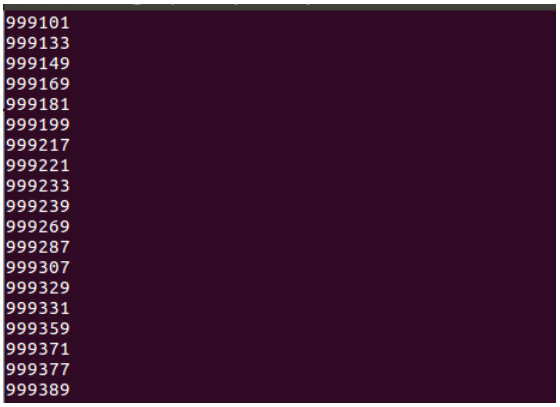


```
17093.679
35900.475
61063.499
```

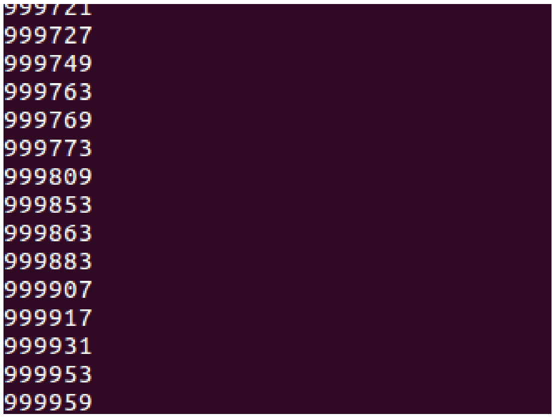


```
23271.430
49273.740
84047.746
```

The result are in ms.

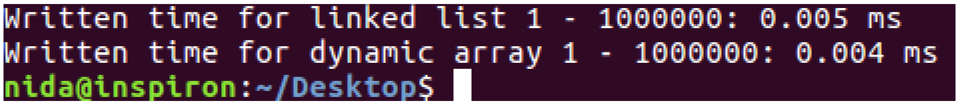


```
999101
999133
999149
999169
999181
999199
999217
999221
999233
999239
999269
999287
999307
999329
999331
999359
999371
999377
999389
```



```
999721
999727
999749
999763
999769
999773
999809
999853
999863
999883
999907
999917
999931
999953
999959
```

These are samples of my running program. It prints out the prime numbers on the console.



```
Written time for linked list 1 - 1000000: 0.005 ms
Written time for dynamic array 1 - 1000000: 0.004 ms
nida@inspiron:~/Desktop$
```

Finally the file written time for 1-1.000.000 linked list and dynamic array separately.