

Yusuf Can Kan
161044007

HW10 REPORT

When you start the program first you can see the menu function;

```
yusuf@MadLord:~/Desktop/hw10$ ./161044007
```

```
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose: 
```

1.Show Prime(Linked List): Creates the linked list and it filled it. Than it calculates the time for finding prime numbers between 1-500.000 , 1-750.000 and 1-1.000.000.It writes that time on the 'output_even_LinkedList.txt' files.

2.Show Prime(Array): Creates the dynamic array and it filled it. Than it calculates the time for finding prime numbers between 1-500.000 , 1-750.000 and 1-1.000.000.It writes that time on the 'output_even_dynamicarray.txt' files.

3.Write Prime(Linked List): Creates the linked list and it filled it. Than it calculates the time for writing time.It writes that time on the 'output_even_LinkedList.txt' files.

4.Write Prime(Array): Creates the dynamic array and it filled it. Than it calculates the time for writing time.It writes that time on the 'output_even_dynamicarray.txt' files.

1.Show Prime(Linked List):

```
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:1
```

```
yusuf@Madlord: ~/Desktop/hw10
207833
207847
207869
207877
207923
207931
207941
207947
207953
207967
207971
207973
207997
208001
208003
208009
208037
208049
208057
208067
208073
208099
208111
208121
208129
208139
208141
208147
208189
208207
208213
```

```
yusuf@Madlord: ~/Desktop/hw10
999563
999599
999611
999613
999623
999631
999653
999667
999671
999683
999721
999727
999749
999763
999769
999773
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983

The prime numbers has showed.
The calculating times has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

```
yusuf@Madlord: ~/Desktop/hw10
999563
999599
999611
999613
999623
999631
999653
999667
999671
999683
999721
999727
999749
999763
999769
999773
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983

The prime numbers has showed.
The calculating times has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

output_prime_LiknedList.txt (~/Desktop/hw10) - gedit

Open Save

```
1
2
3 Question 2 / 3-a-b-c:
4 1 - 500.000 : 19956.26 ms
5 1 - 750.000 : 43720.53 ms
6 1 - 1.000.000 : 75270.56 ms
```

Plain Text Tab Width: 4 Ln 6, Col 28 INS

2.Show Prime(Array):

```
yusuf@Madlord: ~/Desktop/hw10$ ./161044007
```

```
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:2
```

```
yusuf@Madlord: ~/Desktop/hw10
```

```
173977
173981
173993
174007
174017
174019
174047
174049
174061
174067
174071
174077
174079
174091
174101
174121
174137
174143
174149
174157
174169
174197
174221
174241
174257
174259
174263
174281
174289
174299
174311
```

```
yusuf@Madlord: ~/Desktop/hw10
```

```
999599
999611
999613
999623
999631
999653
999667
999671
999683
999721
999727
999749
999763
999769
999773
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983
```

```
The prime numbers has showed.
The calculating times has written in the file.
```

```
yusuf@Madlord: ~/Desktop/hw10$
```

```
yusuf@Madlord: ~/Desktop/hw10
999599
999611
999613
999623
999631
999653
999667
999671
999683
999721
999727
999749
999763
999769
999773
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983

The prime numbers has showed.
The calculating times has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

```
output_prime_dynamic_array.txt (~/Desktop/hw10) - gedit
Open Save
1
2
3 Question 2 / 3-a-b-c:
4 1 - 500.000 : 20926.50 ms
5 1 - 750.000 : 44473.78 ms
6 1 - 1.000.000 : 76718.50 ms
Plain Text Tab Width: 4 Ln 1, Col 1 INS
```

3. Write Prime(Linked List):

```
yusuf@Madlord:~/Desktop/hw10$ ./161044007
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3
```

```
yusuf@Madlord:~/Desktop/hw10$ ./161044007
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3

Calculating and writing, Please Wait
```

```
yusuf@Madlord:~/Desktop/hw10$ ./161044007
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3

Calculating and writing, Please Wait

The prime numbers has written in the file.
The written time has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

```
yusuf@Madlord: ~/Desktop/hw10
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983

The prime numbers has showed.
The calculating times has written in t
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3

Calculating and writing, Please Wait

The prime numbers has written in the file.
The written time has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

```
output_prime_LiknedList.txt (~/Desktop/hw10) - gedit
output_prime_dynamic_array.txt x output_prime_LiknedList.txt x
1 2
2 3
3 5
4 7
5 11
6 13
7 17
8 19
9 23
10 29
11 31
12 37
13 41
14 43
15 47
16 53
17 59
18 61
19 67
20 71
21 73
22 79
23 83
Plain Text Tab Width: 4 Ln 35, Col 3 INS
```

```
yusuf@Madlord: ~/Desktop/hw10
999809
999853
999863
999883
999907
999917
999931
999953
999959
999961
999979
999983

The prime numbers has showed.
The calculating times has written in t
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3

Calculating and writing, Please Wait

The prime numbers has written in the file.
The written time has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

```
output_prime_LiknedList.txt (~/Desktop/hw10) - gedit
output_prime_dynamic_array.txt x output_prime_LiknedList.txt x
78478 999667
78479 999671
78480 999683
78481 999721
78482 999727
78483 999749
78484 999763
78485 999769
78486 999773
78487 999809
78488 999853
78489 999863
78490 999883
78491 999907
78492 999917
78493 999931
78494 999953
78495 999959
78496 999961
78497 999979
78498 999983
78499
78500 Question 4 : 69899.323000
Plain Text Tab Width: 4 Ln 35, Col 3 INS
```

4. Write Prime(Array):

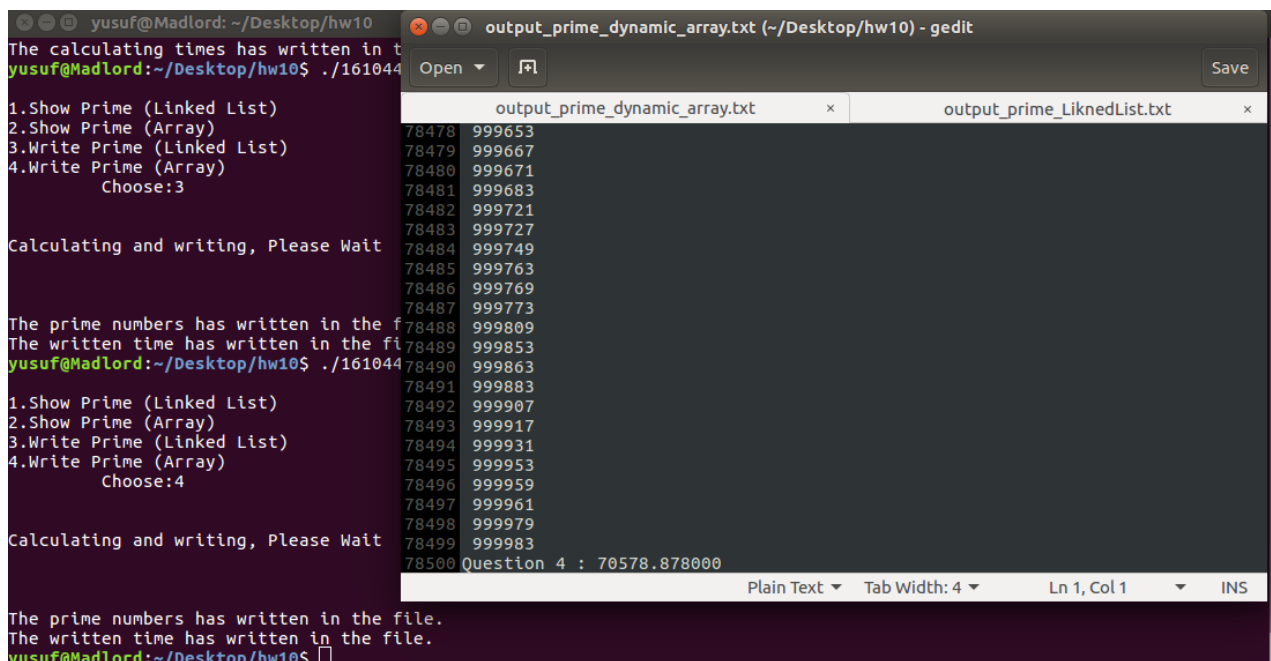
```
yusuf@Madlord:~/Desktop/hw10$ ./161044007
```

```
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:4
```

```
yusuf@Madlord:~/Desktop/hw10$ ./161044007
```

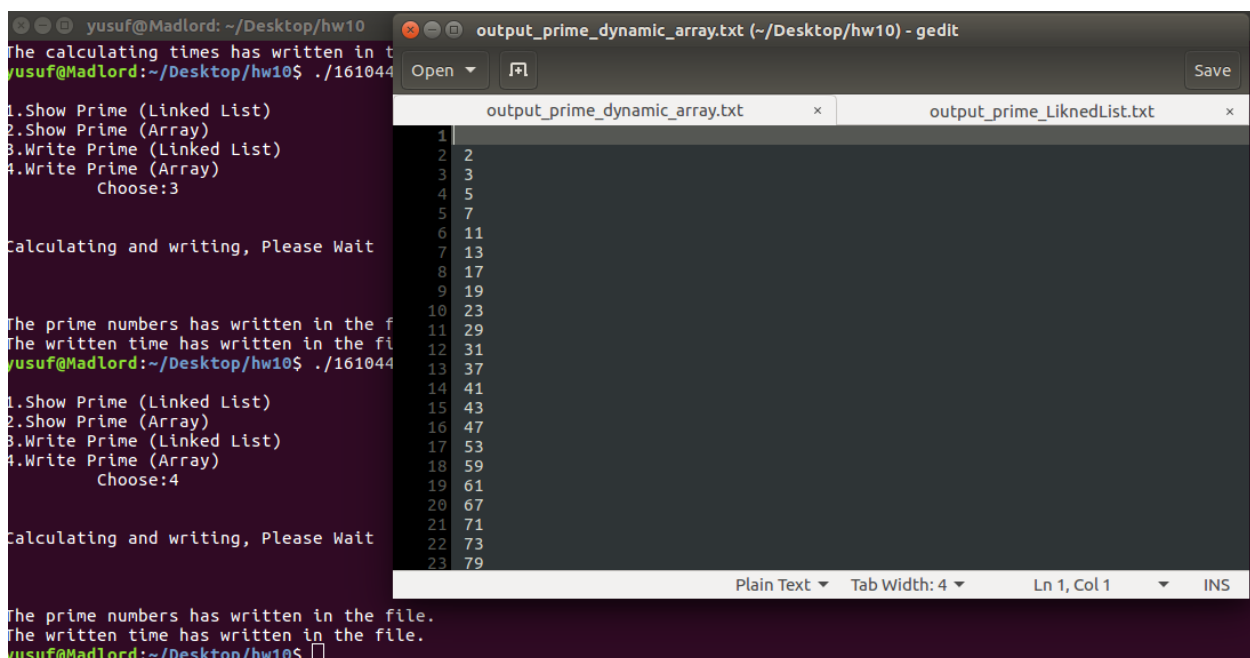
```
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:4
```

Calculating and writing, Please Wait



```
yusuf@Madlord: ~/Desktop/hw10
The calculating times has written in t
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3
Calculating and writing, Please Wait
The prime numbers has written in the f
The written time has written in the fi
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:4
Calculating and writing, Please Wait
The prime numbers has written in the file.
The written time has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

output_prime_dynamic_array.txt	output_prime_LiknedList.txt
78478	999653
78479	999667
78480	999671
78481	999683
78482	999721
78483	999727
78484	999749
78485	999763
78486	999769
78487	999773
78488	999809
78489	999853
78490	999863
78491	999883
78492	999907
78493	999917
78494	999931
78495	999953
78496	999959
78497	999961
78498	999979
78499	999983
78500	Question 4 : 70578.878000



```
yusuf@Madlord: ~/Desktop/hw10
The calculating times has written in t
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:3
Calculating and writing, Please Wait
The prime numbers has written in the f
The written time has written in the fi
yusuf@Madlord:~/Desktop/hw10$ ./161044
1.Show Prime (Linked List)
2.Show Prime (Array)
3.Write Prime (Linked List)
4.Write Prime (Array)
Choose:4
Calculating and writing, Please Wait
The prime numbers has written in the file.
The written time has written in the file.
yusuf@Madlord:~/Desktop/hw10$
```

output_prime_dynamic_array.txt	output_prime_LiknedList.txt
1	2
2	3
3	5
4	7
5	11
6	13
7	17
8	19
9	23
10	29
11	31
12	37
13	41
14	43
15	47
16	53
17	59
18	61
19	67
20	71
21	73
22	79
23	