

Jalanorian / [gist:8d097d5ae0c0406545a8](https://gist.github.com/8d097d5ae0c0406545a8)

Created just now

gistfile1.cpp

C++

```
1  #include "namedsearches.h"
2  #include <algorithm>
3  #include <time.h>
4  #include <iostream>
5
6  using namespace std;
7
8  int main() {
9      // Constant for length of array to be searched.
10     const int kSearchArrayLength = 1000000;
11
12     int search_array[kSearchArrayLength];
13
14     srand(time(NULL));
15     for (int i = 0; i < kSearchArrayLength; i++) {
16         search_array[i] = (rand() % 1000);
17     }
18
19     sort(search_array, search_array + kSearchArrayLength);
20
21     // Initializes clock and a variable for start-times.
22     // BEST-CASE + LINEAR
23     int time_start = time(NULL);
24     int found_at = LinearSearch(0, search_array, kSearchArrayLength);
25     cout << "Time for best-case LinearSearch:" << time(NULL)-time_start << endl;
26
27     // WORST-CASE + LINEAR
28     time_start = time(NULL);
29     found_at = LinearSearch(1000, search_array, kSearchArrayLength);
30     cout << "Time for worst-case LinearSearch:" << time(NULL)-time_start << endl;
31
32     // BEST-CASE + BINARY
33     time_start = time(NULL);
34     found_at = BinarySearch(search_array, 499, 0, kSearchArrayLength);
35     cout << "Time for best-case BinarySearch:" << time(NULL)-time_start << endl;
36
37     // WORST-CASE + BINARY
38     time_start = time(NULL);
39     found_at = BinarySearch(search_array, 1000, 0, kSearchArrayLength);
40     cout << "Time for worst-case BinarySearch:" << time(NULL)-time_start << endl;
41
42
43     return 0;
44 }
45
```