



YAYASAN MEMAJUKAN ILMU DAN KEBUDAYAAN  
**UNIVERSITAS SIBER ASIA**

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**LEMBAR JAWABAN**  
**UJIAN AKHIR SEMESTER**  
**SEMESTER GANJIL TAHUN AJARAN 2022/2023**

Mata Kuliah : Struktur Data & Algoritma  
Kelas : IT204  
Prodi : Informatika PJJ S1  
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Dosen : Alun Sujjada, S.Kom., M.T

**Jawaban Ujian**

- **Link GitHub file cpp :**  
<https://github.com/kiroi692139/uas-algoritma>
- **Link gdrive folder :**  
[https://drive.google.com/drive/folders/1d4SRO6brzCMgNBN0I6LufiGPmKUkrsRC?usp=drive\\_link](https://drive.google.com/drive/folders/1d4SRO6brzCMgNBN0I6LufiGPmKUkrsRC?usp=drive_link)
- **Link YuoTube video :** <https://youtu.be/9os-T7t3qgo>

1.

```
1  #include <iostream>
2  #include <string>
3
4  using namespace std;
5
6  struct namaAlamat{
7      string nama;
8      string alamat;
9  };
10
11 void bubbleSort(namaAlamat arr[], int n){
12     bool reposisi;
13
14     for (int i=0; i<n-1; i++){
15         reposisi = false;
16
17         for (int j=0; j<n-i-1; j++){
18             if (arr[j].nama > arr[j+1].nama){
19
20                 namaAlamat temp = arr[j];
21                 arr[j] = arr[j+1];
22                 arr[j+1] = temp;
23                 reposisi = true;
24             }
25         }
26
27         if(!reposisi){
28             break;
29         }
30     }
31 }
32 }
```

```
33
34 void selectionSort(namaAlamat arr[], int n){
35     for (int i=0; i<n-1; i++){
36         int indexBawah = i;
37
38         for (int j=i+1; j<n; j++){
39             if (arr[j].nama < arr[indexBawah].nama){
40                 indexBawah = j;
41             }
42         }
43
44         if (indexBawah != i){
45             namaAlamat temp = arr[i];
46             arr[i] = arr[indexBawah];
47             arr[indexBawah] = temp;
48         }
49     }
50 }
51 }
```



# YAYASAN MEMAJUKAN ILMU DAN KEBUDAYAAN UNIVERSITAS SIBER ASIA

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```
52 int main() {
53
54     namaAlamat listTabel[] = {
55         {"Fahmi", "Jakarta"},
56         {"Romi", "Solo"},
57         {"Andri", "Jakarta"},
58         {"Fadillah", "Banyuwangi"},
59         {"Ruli", "Bandung"},
60         {"Rudi", "Bali"},
61         {"Dendi", "Purwokerto"},
62         {"Zaki", "Madiun"}
63     };
64
65     int n = sizeof(listTabel)/sizeof(listTabel[0]);
66
67     cout << "Hasil Sorting Bubble Sort: " << endl << endl;
68     cout << "|----- Nama ----- Alamat -----|" << endl << endl;
69     bubbleSort(listTabel, n);
70
71     for (int i=0; i<n; i++){
72         cout << "|          " << listTabel[i].nama << "          " << listTabel[i].alamat << endl;
73     }
74
75     cout << endl << endl;
76
77     cout << "Hasil Sorting Selection Sort: " << endl;
78     cout << "|----- Nama ----- Alamat -----|" << endl << endl;
79     selectionSort(listTabel, n);
80
81     for (int i=0; i<n; i++){
82         cout << "|          " << listTabel[i].nama << "          " << listTabel[i].alamat << endl;
83     }
84
85     return 0;
86 }
87
```

## OUTPUT PROGRAM :

```
Hasil Sorting Bubble Sort:
|----- Nama ----- Alamat -----|
|          Andri          Jakarta
|          Dendi          Purwokerto
|          Fadillah       Banyuwangi
|          Fahmi          Jakarta
|          Romi           Solo
|          Rudi           Bali
|          Ruli           Bandung
|          Zaki           Madiun

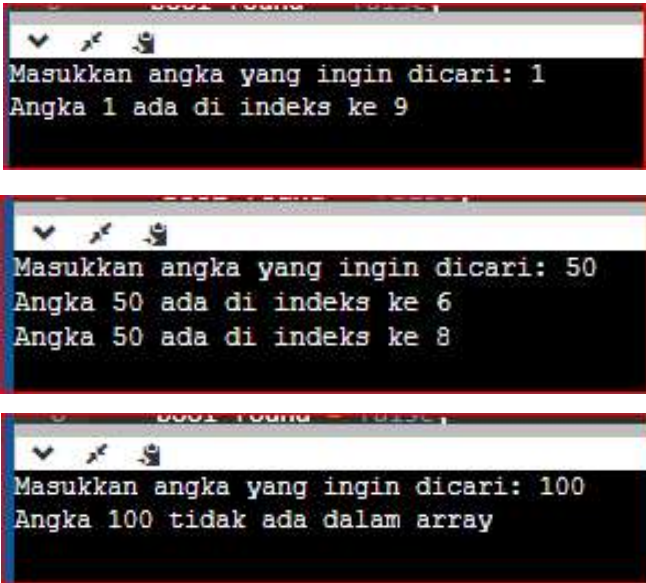
Hasil Sorting Selection Sort:
|----- Nama ----- Alamat -----|
|          Andri          Jakarta
|          Dendi          Purwokerto
|          Fadillah       Banyuwangi
|          Fahmi          Jakarta
|          Romi           Solo
|          Rudi           Bali
|          Ruli           Bandung
|          Zaki           Madiun
```



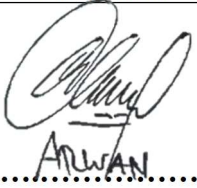
2.

```
1 #include <iostream>
2
3 using namespace std;
4
5 void carilinear(int L[], int N, int X){
6     bool found = false;
7
8     for (int i = 0; i < N; i++){
9         if (L[i] == X) {
10             cout << "Angka " << X << " ada di indeks ke " << i+1 << endl;
11             found = true;
12         }
13     }
14
15     if (!found){
16         cout << "Angka " << X << " tidak ada dalam array" << endl;
17     }
18 }
19
20 int main(){
21     int array[] = {19, 40, 10, 90, 2, 50, 60, 50, 1};
22     int size = sizeof(array)/sizeof(array[0]);
23
24     int input;
25     cout << "Masukkan angka yang ingin dicari: ";
26     cin >> input;
27
28     carilinear(array, size, input);
29
30     return 0;
31 }
32
```

**OUTPUT PROGRAM :**



3. Link YouTube Video : <https://youtu.be/9os-T7t3qgo>

Nilai	Tanda Tangan Dosen Pengampu / Tutor	Tanda Tangan Mahasiswa
	(.....)	 (.....Arwan.....)
Diserahkan pada Tanggal:		Tanggal Mengumpulkan:
		04 Agustus 2023