Contoh Praktikum Algoritma dan Struktur Data

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Prak. Algoritma dan Struktur Data - I

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asd8.cpp | asd9.cpp | cnthprak8-1.cpp

```cpp
#include <iostream>
using namespace std;

int search01_a(int tika_a[], int jmlelemenarry_a, int elemen_a);

int main() {
    const int jmlelemenarry_a = 11;
    int tika_a[jmlelemenarry_a] = {22, 61, 15, 66, 18, 25, 24, 87, 55, 45, 10};

    cout << "--------------------------------------" << endl;
    cout << "'' Sequential Search ''" << endl;
    cout << "--------------------------------------" << endl;
    cout << "Isi data nya adalah " << endl;
    cout << "--------------------" << endl;
    cout << endl;
    for (int count_a = 0; count_a < jmlelemenarry_a; count_a++) {
        cout << " " << " Data[" << count_a + 1 << "]" << "-->" << tika_a[count_a] << endl;
    }

    int searchelemen_a = 0;
    int flaq_a = 0;
    cout << "----------------------------------" << endl;
    cout << endl;
    cout << "Masukkan data yang akan anda cari ? ";
    cin >> searchelemen_a;
    flaq_a = search01_a(tika_a, jmlelemenarry_a, searchelemen_a);
    if (flaq_a != -1)
        cout << "Data yang dicari ditemukan pada posisi : Data[" << flaq_a << "]" << endl;
    else
        cout << "Data yang anda cari tidak ditemukan" << endl;
    cin.get();
    return 0;
}

int search01_a(int tika_a[], int jmlelemenarry_a, int elemen_a) {
    int flaq_a = -1;
    for (int count_a = 0; count_a < jmlelemenarry_a; count_a++) {
        if (elemen_a == tika_a[count_a]) {
            flaq_a = count_a + 1;
            break;
        }
    }
    return flaq_a;
}
```

```
F:\>g++ cnthprak8-1.cpp -o 1

F:\>1
--------------------------------------
'' Sequential Search ''
--------------------------------------
Isi data nya adalah
--------------------

  Data[1]-->22
  Data[2]-->61
  Data[3]-->15
  Data[4]-->66
  Data[5]-->18
  Data[6]-->25
  Data[7]-->24
  Data[8]-->87
  Data[9]-->55
  Data[10]-->45
  Data[11]-->10
----------------------------------

Masukkan data yang akan anda cari ? 22
Data yang dicari ditemukan pada posisi : Data[1]

F:\>
```

Pseudocode :

```
Kamus/Deklarasi Variabel fungsi utama

jmlelemenarry_a = const int
tika_a, count_a,searchelemen_a,flaq_a = int

Algoritma/Deskripsi fungsi utama

jmlelemenarry_a = 11
tika_a[jmlelemenarry_a] =
{22, 61, 15, 66, 18, 25, 24, 87, 55, 45, 10}
for (int count_a = 0; count_a < jmlelemenarry_a;
count_a++)
        print count_a+1;tika_a[count_a]
endfor
searchelemen_a = 0
flaq_a = 0
Input searchelemen_a
flaq_a = search01_a
(tika_a, jmlelemenarry_a, searchelemen_a)
if (flaq_a != -1)
        print flaq_a
else
        print ("Data yang anda cari tidak ditemukan")
endif
```

```
Kamus/Deklarasi Variabel fungsi search01_a
flaq_a, count_a = int

Algoritma/Deskripsi fungsi search01_a
(int tika_a[], int jmlelemenarry_a, int elemen_a)

flaq_a = -1
for (int count_a = 0; count_a < jmlelemenarry_a;
count_a++)
        if (elemen_a == tika_a[count_a])
                flaq_a = count_a + 1
        break
        endif
endfor
return flaq_a
```

Algoritma :

1. Membuat fungsi utama
2. jmlelemenarry_a = 11
3. tika_a[jmlelemenarry_a] =
   {22, 61, 15, 66, 18, 25, 24, 87, 55, 45, 10}
4. Selama (count_a = 0) maka kerjakan baris 5 s.d 8
5. Mencetak/Menampilkan nilai count_a+1
6. Mencetak/Menampilkan nilai tika_a[count_a]
7. count_a++
8. searchelemen_a = 0
9. flaq_a = 0
10. Menginput/Memasukkan nilai searchelemen_a
11. flaq_a = search01_a(tika_a, jmlelemenarry_a, searchelemen_a)
12. Jika (flaq_a != -1) maka kerjakan baris 13 kalau tidak baris 14
13. Mencetak/Menampilkan nilai flaq_a
14. Menapilkan “Data yang anda cari tidak ditemukan”
15. Membuat fungsi search01_a
    (tika_a[], int jmlelemenarry_a, int elemen_a)
16. flaq_a=-1
17. Selama (count_a = 0) maka kerjakan baris 18 s.d 19
18. Jika (elemen_a == tika_a[count_a]) maka kerjakan baris 19
19. flaq_a = count_a+1
20. Kembali flaq_a