No 2 Array

#include <iostream>

using namespace std;

int main() {

int arr[] = {10, 20, 30, 40, 50, 60, 70};

int n = sizeof(arr) / sizeof(arr[0]); // Menghitung jumlah elemen dalam array

int x = 50; // Nilai yang dicari

bool found = false; // Flag untuk menandakan apakah nilai ditemukan

for (int i = 0; i < n; i++){

if(arr[i] == x){

cout << "Nilai " << x << " ditemukan pada indeks ke- " << i << endl;

found = true; // Set flag ke true jika nilai ditemukan

break; // Keluar dari loop setelah menemukan nilai

}

}

if(!found) {

cout << "Nilai x = " << x << " tidak ditemukan dalam array." << endl;

}

return 0;

}

No 1 Linked List

#include <iostream>

using namespace std;

struct Mahasiswa{

string nama, nim, jurusan;

int usia;

Mahasiswa\* next;

};

void tambahMahasiswa(Mahasiswa\*& head, string nama, string nim, int usia, string jurusan) {

Mahasiswa\* newMahasiswa = new Mahasiswa();

newMahasiswa->nama = nama;

newMahasiswa->nim = nim;

newMahasiswa->usia = usia;

newMahasiswa->jurusan = jurusan;

newMahasiswa->next = nullptr;

if (head == nullptr) {

head = newMahasiswa;

} else {

Mahasiswa\* temp = head;

while (temp->next != nullptr) {

temp = temp->next;

}

temp->next = newMahasiswa;

}

}

void tampilkanMahasiswa(Mahasiswa\* head) {

Mahasiswa\* temp = head;

int index = 1;

while (temp != nullptr) {

cout << "Detail Mahasiswa " << index++ << ": ";

cout << temp->nama << ", "

<< temp->nim << ", "

<< temp->usia << " tahun, "

<< temp->jurusan << endl;

temp = temp->next;

}

}

int main()

{

int i;

string nama, nim, jurusan;

int usia;

Mahasiswa\* head = nullptr;

Mahasiswa ms[100];

cout << " INPUT DATA MAHASISWA " << endl;

int jumlah;

cout << "Masukkan Jumlah Mahasiswa : ";

cin >> jumlah;

for (i = 0; i < jumlah; ++i){

cout << "\n\n----------------------------------------------" << endl;

cout << "Mahasiswa ke-" << i + 1 << endl;

cout << "Masukkan Nama : ";

cin >> nama;

cout << "Masukkan Nim : ";

cin >> nim;

cout << "Masukkan Usia : ";

cin >> usia;

cout << "Masukkan Jurusan : ";

cin >> jurusan;

tambahMahasiswa(head, nama, nim, usia, jurusan);

}

cout << "\n\n----------------------------------------------" << endl;

tampilkanMahasiswa(head);

return 0;

}

No 3 linked list

#include <iostream>

using namespace std;

struct Node {

int data;

Node\* next;

};

Node\* tambahNode(Node\* head, int data) {

Node\* newNode = new Node();

newNode->data = data;

newNode->next = NULL;

if (head == NULL) {

head = newNode;

} else {

Node\* temp = head;

while (temp->next != NULL) {

temp = temp->next;

}

temp->next = newNode;

}

return head;

}

void cetakDanJumlahkan(Node\* head) {

Node\* temp = head;

int sum = 0;

cout << "List 1 = ";

while (temp != NULL) {

cout << "[" << temp->data << "]";

if (temp->next != NULL) {

cout << "<=>";

}

sum += temp->data;

temp = temp->next;

}

cout << endl << "SUM = " << sum << endl;

}

int main() {

Node\* head = NULL;

int list[] = {4, 10, 4, 60};

int jumlah = sizeof(list) / sizeof(list[0]);

for (int i = 0; i < jumlah; i++) {

head = tambahNode(head, list[i]);

}

cetakDanJumlahkan(head);

return 0;

}

No 2 linked list

#include <iostream>

using namespace std;

struct Node {

int data;

Node\* next;

};

Node\* tambahNode(Node\* head, int dataBaru) {

Node\* newNode = new Node{dataBaru, NULL};

if (!head) {

return newNode;

} else {

Node\* temp = head;

while (temp->next) {

temp = temp->next;

}

temp->next = newNode;

}

return head;

}

int cariKunci(Node\* head, int kunci) {

int indeks = 0;

Node\* temp = head;

while (temp) {

if (temp->data == kunci) {

return indeks;

}

temp = temp->next;

indeks++;

}

return -1;

}

void tampilkanLinkedList(Node\* head) {

Node\* temp = head;

while (temp) {

cout << temp->data << " -> ";

temp = temp->next;

}

cout << "NULL" << endl;

}

int main() {

Node\* head = NULL;

head = tambahNode(head, 14);

head = tambahNode(head, 21);

head = tambahNode(head, 13);

head = tambahNode(head, 30);

head = tambahNode(head, 10);

cout << "Linked List: ";

tampilkanLinkedList(head);

int kunci;

cout << "Masukkan nilai yang ingin dicari: ";

cin >> kunci;

int indeks = cariKunci(head, kunci);

if (indeks != -1) {

cout << "Kunci ditemukan pada indeks: " << indeks << endl;

} else {

cout << "Kunci tidak ditemukan." << endl;

}

return 0;

}

No 3 Array

#include <iostream>

using namespace std;

int main()

{

int list[] = {4,3,4,60};

int jumlah = sizeof(list) / sizeof (list[0]);

int sum = 0;

cout << "List 1 =";

for (int i = 0; i < jumlah; i++) {

cout << "[" << list[i] << "]";

if (i < jumlah - 1){

cout << "<=>";

}

sum += list[i];

}

cout << endl << "SUM =" <<sum <<endl;

return 0;

}

No 1 biasa

#include <iostream>

using namespace std;

struct Mahasiswa{

string nama, nim, jurusan;

int usia;

};

int main()

{

int i;

Mahasiswa ms[100];

cout << " INPUT DATA MAHASISWA " << endl;

int jumlah;

cout << "Masukkan Jumlah Mahasiswa : ";

cin >> jumlah;

for (i = 0; i < jumlah; ++i){

cout << "\n\n----------------------------------------------" << endl;

cout << "Mahasiswa ke-" << i + 1 << endl;

cout << "Masukkan Nama : ";

cin >> ms[i].nama;

cout << "Masukkan Nim : ";

cin >> ms[i].nim;

cout << "Masukkan Usia : ";

cin >> ms[i].usia;

cout << "Masukkan Jurusan : ";

cin >> ms[i].jurusan;

}

cout << "\n\n----------------------------------------------" << endl;

for (i = 0; i < jumlah; i++) {

cout << "Detail Mahasiswa " << i + 1 << ": ";

cout << ms[i].nama << ", "

<< ms[i].nim << ", "

<< ms[i].usia << " tahun, "

<< ms[i].jurusan << endl;

}

return 0;

}