

# ACT 2

## STRUKTUR DATA 2IA22

Nama : Muhammad Faris Rasyid Raharjo

Kelas : 2IA22

NPM :51422041

### listing

```
#include <stdio.h>
#include <stdlib.h>

struct simpul {
    int data;
    struct simpul *rantai;
};

int main() {
    struct simpul *head = (struct simpul *)malloc(sizeof(struct simpul));
    head->data = 514;
    head->rantai = NULL;

    struct simpul *record = (struct simpul *)malloc(sizeof(struct simpul));
    record->data = 220;
    record->rantai = NULL;
    head->rantai = record;

    record = (struct simpul *)malloc(sizeof(struct simpul));
    record->data = 41;
    record->rantai = NULL;
    head->rantai->rantai = record;

    int c;
    printf("\n=====\\n"
        "          PROGRAM LINKED LIST\\n"
        "=====\\n\\n");
    printf("1. Hitung Simpul");
    printf("\\n2. Cetak Data");
    printf("\\n=====\\n");

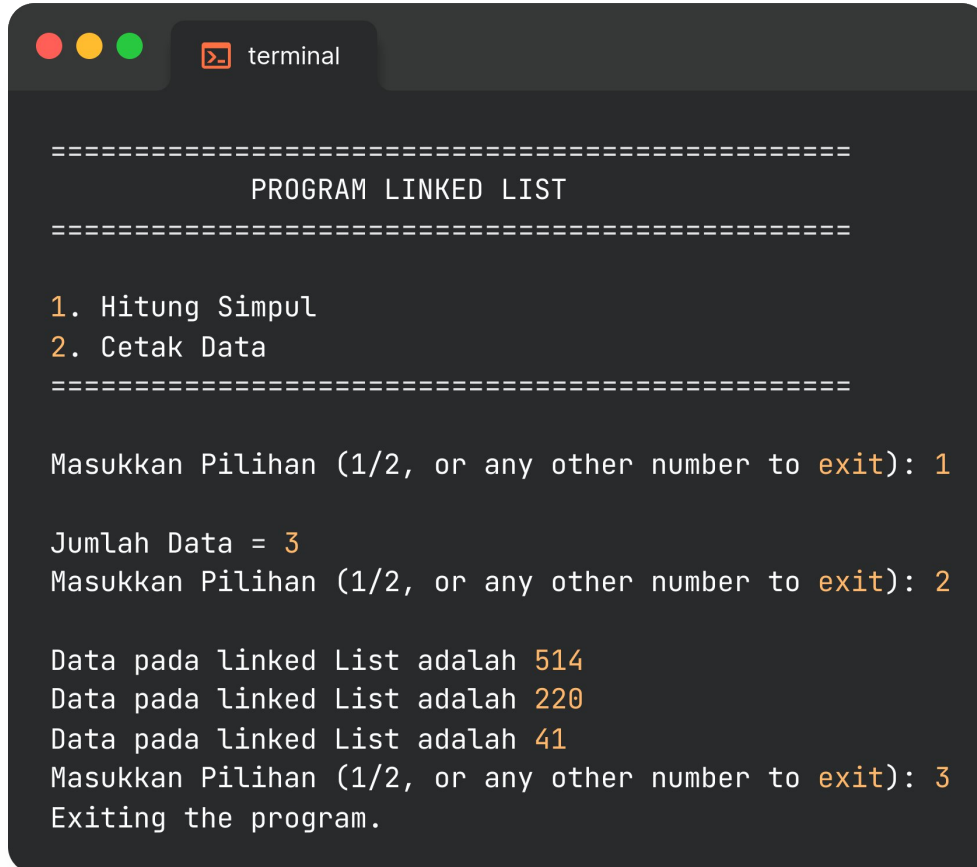
    while (1) {
        printf("\\nMasukkan Pilihan (1/2, or any other number to exit): ");
        scanf("%d", &c);

        if (c == 1) {
            int hitung = 0;
            struct simpul *tunjuk = head;
            while (tunjuk != NULL) {
                hitung++;
                tunjuk = tunjuk->rantai;
            }
            printf("\\nJumlah Data = %d", hitung);
        } else if (c == 2) {
            struct simpul *tunjuk = head;
            if (tunjuk == NULL) {
                printf("Linked list Kosong");
            } else {
                while (tunjuk != NULL) {
                    printf("\\nData pada linked List adalah %d ", tunjuk->data);
                    tunjuk = tunjuk->rantai;
                }
            }
        } else {
            printf("Exiting the program.\\n");
            break;
        }
    }

    struct simpul *current = head;
    while (current != NULL) {
        struct simpul *next = current->rantai;
        free(current);
        current = next;
    }

    return 0;
}
```

## output



```
=====
                        PROGRAM LINKED LIST
=====

1. Hitung Simpul
2. Cetak Data
=====

Masukkan Pilihan (1/2, or any other number to exit): 1

Jumlah Data = 3
Masukkan Pilihan (1/2, or any other number to exit): 2

Data pada linked List adalah 514
Data pada linked List adalah 220
Data pada linked List adalah 41
Masukkan Pilihan (1/2, or any other number to exit): 3
Exiting the program.
```