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Link Youtube: https://youtu.be/3onS3E9POl4

## **SOURCE CODE:**

```
#include <stdbool.h>
#include <stdio.h>
#include <string.h>
#include <unistd.h>
#define SIZE 3
typedef struct {
 char nama[20];
 int umur;
} data;
data stack[SIZE];
int top = -1;
bool is_empty() {
 if (top == -1) {
  return true;
 } else {
  return false;
 }
}
bool\ is\_full()\ \{
 if (top == SIZE - 1) {
  return true;
 } else {
```

```
return false;
 }
}
void\ push(data\ datadiri)\ \{
 if\ (is\_full())\ \{
  printf("Stack Penuh.\n");
  sleep(1);
 } else {
  stack[++top] = datadiri;
  printf("=== Push data ===\nNama: %s\nUmur: %d\n", datadiri.nama,
      datadiri.umur);
  sleep(2);
 }
}
void\;pop()\;\{
 if (is_empty()) {
  printf("Stack Kosong.\n");
  return;
  sleep(1);
 data popped_value = stack[top--];
 printf("=== Pop data ===\nNama : %s\nUmur : %d\n", popped_value.nama,
     popped_value.umur);
 sleep(2);
}
void peek() {
 if (is_empty()) {
```

```
printf("Stack Kosong.\n");
  sleep(1);
 } else {
  printf("=== Nilai Teratas ===\nNama : %s\nUmur : %d\n", stack[top].nama,
      stack[top].umur);
  sleep(2);
 }
}
void display() {
 if (is_empty()) {
  printf("Stack Kosong.\n");
  sleep(1);
 } else {
  printf("=== Stack Data ===\n");
  printf("Nama
                       Umur\n'');
  for (int i = 0; i \le top; i++) {
   printf("%-15s %d\n", stack[i].nama, stack[i].umur);
  }
  sleep(2);
 }
}
int main() {
 printf("\e[H\e[2J\e[3J");
 bool isRunning = true;
 int c, choice;
 data datadiri;
 do {
  printf("\e[H\e[2J\e[3J");
```

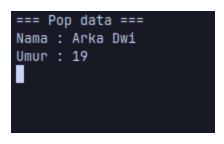
```
printf("1. Push\n2. Pop\n3. Peek/Top\n4. Display Data\n5. Exit\n");
printf("Pilih Menu : ");
scanf("%d", &choice);
switch (choice) {
case 1:
printf("\elle{e}[H\elle{e}[2J\elle{e}[3J");
 printf("Masukan Nama: ");
 while ((c = getchar()) != '\n' && c != EOF)
 fgets(datadiri.nama, 20, stdin);
 datadiri.nama[strlen(datadiri.nama) - 1] = '\0';
 printf("Masukan Umur : ");
 scanf("%d", &datadiri.umur);
printf("\e[H\e[2J\e[3J");
push(datadiri);
 break;
case 2:
printf("\e[H\e[2J\e[3J");
pop();
break;
case 3:
printf("\e[H\e[2J\e[3J");
peek();
 break;
case 4:
 printf("\elle{e}[4]\elle{e}[3]");
 display();
 break;
case 5:
```

```
printf("\e[H\e[2J\e[3J");
  printf("Exiting...\n");
  isRunning = false;
  sleep(1);
  break;
  default:
    printf("\e[H\e[2J\e[3J");
    printf("Input Menu Tidak Ada\nSilahkan Pilih Menu Yang Lain.");
    sleep(1);
    break;
  }
} while (isRunning);

printf("\e[H\e[2J\e[3J");
  return 0;
}
```

```
=== Stack Data ===
Nama Umur
Gendhi Ramona 24
Gung Bram 20
Arka Dwi 19
```

```
=== Nilai Teratas ===
Nama : Arka Dwi
Umur : 19
```



=== Pop data === Nama : Gung Bram

Umur : 20

=== Pop data === Nama : Gendhi Ramona Umur : 24

Stack Kosong.