STACK USING ARRAY

```c
/******    Program to Implement Stack using Array    ******/

#include <stdio.h>

#define MAX 50

void push();
void pop();
void display();

int stack[MAX], top=-1, item;

main()
{
    int ch;
    do
    {
        printf("\n\n\n\n1.\tPush\n2.\tPop\n3.\tDisplay\n4.\tExit\n");
        printf("\nEnter your choice: ");
        scanf("%d", &ch);

        switch(ch)
        {
            case 1:
                push();
                break;

            case 2:
                pop();
                break;

            case 3:
                display();
                break;

            case 4:
                exit(0);

            default:
                printf("\n\nInvalid entry. Please try again...\n");
        }
    } while(ch!=4);
    getch();
}
```

```c
void push()
{
    if(top == MAX-1)
        printf("\n\nStack is full.");
    else
    {
        printf("\n\nEnter ITEM: ");
        scanf("%d", &item);

        top++;
        stack[top] = item;
        printf("\n\nITEM inserted = %d", item);
    }
}


void pop()
{
    if(top == -1)
        printf("\n\nStack is empty.");
    else
    {
        item = stack[top];
        top--;
        printf("\n\nITEM deleted = %d", item);
    }
}


void display()
{
    int i;

    if(top == -1)
        printf("\n\nStack is empty.");
    else
    {
        for(i=top; i>=0; i--)
            printf("\n%d", stack[i]);
    }
}
```