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#include<stdio.h>
#include<stdlib.h>
#define N 5
int stack[N];
int top=-1;
void push(void);
void pop(void);
void peek(void);
void display(void);
void main()
{
    int choice;
    while(1)
    {
        printf("1.Push\n");
        printf("2.Pop\n");
        printf("3.Peek\n");
        printf("4.Display\n");
        printf("5.Exit\n");
        printf("Enter your choice ");
        scanf("%d",&choice);
        switch(choice)
        {
            case 1: push();
                    break;
            case 2: pop();
                    break;
            case 3: peek();
                    break;
            case 4: display();
                    break;
            case 5: exit(0);
            default: printf("Invalid Input\n");
        }
    }
}

void push()
{
    int data;
    printf("Enter your data ");
    scanf("%d",&data);
    if(top==N-1)
    {
        printf("Overflow condition\n");
        return;
    }
    top++;
    stack[top]=data;
}

void peek()
{
    if(top== -1)
    {
        printf("Underflow condition\n");
        return;
    }
    printf("%d\n",stack[top]);
}

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void pop()
{
    if(top==-1)
    {
        printf("Underflow condition\n");
        return;
    }
    top--;
}
void display()
{
    if(top==-1)
    {
        printf("Underflow condition\n");
        return;
    }
    for(int i=0;i<=top;i++)
    {
        printf("%d ",stack[i]);
    }
    printf("\n");
}
```