stack_04_PopPushNShow.c

```c
#include <stdio.h>
#include <stdlib.h>
#define SIZE 4

int top = -1;
int arr[SIZE];

void push();
void pop();
void show();

int main()
{
    int choice;
    while (1)
    {
        printf("\nPerform Operatons on Stack");
        printf("\n1.Push the Element");
        printf("\n2.Pop the Element");
        printf("\n3.Show the Stack");

        printf("\nEnter a Choice: ");
        scanf("%d", &choice);

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

        case 2:
            pop();
            break;

        case 3:
            show();
            break;

        case 4:
            exit(0);
            break;

        default:
            printf("Invalid Statement!");
        }
    }
}

void push()
{
    int x;
```

```
    if (top == SIZE - 1)
    {
        printf("\nOverflow!");
    }
    else
    {
        printf("\nEnter number to be Added: ");
        scanf("%d", &x);
        top = top + 1;
        arr[top] = x;
        printf("Number has been Added\n");
    }
}

void pop()
{
    if (top == -1)
    {
        printf("\nUnderflow!");
    }
    else
    {
        printf("\nPopped Element: %d", arr[top]);
        top = top - 1;
    }
}

void show()
{
    if (top == -1)
    {
        printf("\nEmpty Stack!!");
    }
    else
    {
        printf("\nElements Present: ");
        for (int i = top; i >= 0; --i)
        {
            printf("%d ", arr[i]);
        }
    }
}
```