

Stack

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

#define size 6

int stack[size];
int top=-1;

void push(int val)
{
    if(top ==size-1)
        printf("stack overflow\n");

    else
    {
        top++;
        stack[top]=val;
        printf("the value is pushed\n");
    }
}

int pop()
{
    int value;

    if(top==--1)
    {
        //printf("stack underflow\n");
        return -9999;
    }

    else
    {
        value= stack[top];
        top--;
        return value;           //return stack[top--];
    }
}

void display()
{
    int i;
    printf("\nstack\n");
    for(i=top;i>=0;i--)
    {
        printf("%d\n",stack[i]);
    }
    printf("\n\n");
}

void main()
{
    int value,choice;
```

```
clrscr();
while(1)
{
    printf(" press 1 for Push\n press 2 for pop\n press 3 for display\n
press 4 for exit\n\n");
    printf("\nenter your choice:");
    scanf("%d",&choice);

switch(choice)
{
case 1:
    printf("enter the value which is to be pushed\n");
    scanf("%d",&value);
    push(value);
    break;

case 2:
    value= pop();
    if (value== -9999 && top == -1)
        printf("stack underflow\n\n\n");
    else
        printf("the popped data is %d\n",value);

    break;

case 3:
    display();
    break;

case 4:
    exit(0);
    break;

default: printf("invalid choice\n");

    }//end of switch
} //end of while
//return 0;
getch();
}
```