

```
#include <stdio.h>

#define max 5

int top = -1;

int s[max];

void push(int value)
{
    if (top == max - 1)
    {
        printf("stack overflow cant push");
    }
    else
    {
        top = top + 1;
        s[top] = value;
    }
}

void pop()
{
    int value;
    if (top == -1)
    {
        printf("stack is underflow cant pop\n");
    }
    else
    {
        value = s[top];
        top = top - 1;
        printf("\n%d is popped\n", value);
    }
}

void isempty(){
    if (top == -1)
```

```

    {
        printf("stack is empty\n");
    }
}

void isfull()
{
    if (top == max - 1)
        printf("stack is full\n");
}

void display()
{
    if (top == -1)
        printf("stack is underflow\n");
    else
    {
        printf("\n stack elements are:");
        for (int i = 0; i <= top; i++)
            printf("%d\t", s[i]);
    }
}

void main()
{
    int value;
    int no;
    printf("enter a no:");
    scanf("%d", &no);
    push(no);
    printf("enter a no:");
    scanf("%d", &no);
    push(no);
    printf("enter a no:");
    scanf("%d", &no);

```

```
push(no);  
printf("enter a no:");  
scanf("%d", &no);  
push(no);  
printf("enter a no:");  
scanf("%d", &no);  
push(no);  
printf("enter a no:");  
scanf("%d", &no);  
push(no);  
display();  
pop();  
pop();  
pop();  
pop();  
isempty();  
isfull();  
display();  
pop();  
pop();  
}
```

Output:

```
enter a no:10
enter a no:20
enter a no:30
enter a no:40
enter a no:50
enter a no:60
stack overflow cant push
  stack elements are:10  20      30      40      50
50 is popped

40 is popped

30 is popped

20 is popped

  stack elements are:10
10 is popped
stack is underflow cant pop
```