```c
#include<stdio.h>
#define MAX 3
int stack[3];
int top=-1;
void push(int value){
if(top==MAX-1){
    printf("Stack is overflow \n");
}
else{
    top++;
    stack[top]=value;
    printf("the value %d has been added to the stack\n",stack[top]);
}
}
int pop(){
if(top==-1)
    {
        printf("stack is underflow\n");
        return -1;
    }
else{
     return stack[top--];
}
}
void display(){
if(top==-1){
    printf("the stack is empty\n");
}
else{
    for(int i=top;i>=0;i--)
    {
        printf("%d\n",stack[i]);
    }
}
}
```

```c
int main()
{
    int choice,value;
    do{
    printf("stack menu\n");
    printf("1.push\n");
    printf("2.pop\n");
    printf("3.Display\n");
    printf("4.Exit\n");
    printf("enter the choice");
    scanf("%d",&choice);
    switch(choice){
    case 1: printf("enter the value to add to stack\n");
            scanf("%d",&value);
            push(value);
            break;
    case 2:  value=pop();
            if(value!=-1){
                printf("the value poped from stack is %d\n",value);
              }
            break;
    case 3: display();
            break;
    case 4: printf("exiting the program\n");
            break;
            }
    } while(choice !=4);
}
```

```
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice2
stack is underflow
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice1
enter the value to add to stack
9
the value 9 has been added to the stack
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice1
enter the value to add to stack
8
the value 8 has been added to the stack
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice1
enter the value to add to stack
7
the value 7 has been added to the stack
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice1
enter the value to add to stack
```

```
7
Stack is overflow
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice2
the value poped from stack is 7
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice3
8
9
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice2
the value poped from stack is 8
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice2
the value poped from stack is 9
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice3
the stack is empty
```

```
stack menu
1.push
2.pop
3.Display
4.Exit
enter the choice4
exiting the program

Process returned 0 (0x0)   execution time : 50.788 s
Press any key to continue.
```