lab1.c

```c
#include<stdio.h>
int stack[10],operation,n,top,x,i;
void push(void);
void pop(void);
void display(void);
int main()
{
    top=-1;
    printf("Enter the size of stack: \n");
    scanf("%d",&n);
    printf("stack operations: \n");
    printf("1.PUSH\n");
    printf("2.POP\n");
    printf("3.DISPLAY\n");
    printf("4.TERMINATE\n");
    do
    {
        printf("Enter desired operation:\n");
        scanf("%d",&operation);
        switch(operation)
        {
            case 1:
            {
                push();
                break;
            }
```

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```
26              }
27              case 2:
28              {
29                  pop();
30                  break;
31              }
32              case 3:
33              {
34                  display();
35                  break;
36              }
37              case 4:
38              {
39                  printf("termination ");
40                  break;
41              }
42              }
43
44
45      }
46      while(operation!=4);
47      return 0;
48  }
49  void push()
50  {
51      if(top>=n-1)
```

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```
51      if(top>=n-1)
52      {
53          printf("stack is over flow\n");
54
55      }
56      else
57      {
58          printf(" Enter value to be pushed:\n");
59          scanf("%d",&x);
60          top++;
61          stack[top]=x;
62      }
63  }
64  void pop()
65  {
66      if(top<=-1)
67      {
68          printf( "Stack is under flow");
69      }
70      else
71      {
72          printf("The popped elements is %d",stack[top]);
73          top--;
74      }
75  }
76  void display()
```

Sel: 0 Lines: 90 Length: 1607

```
65  {
66      if(top<=-1)
67      {
68          printf( "Stack is under flow");
69      }
70      else
71      {
72          printf("The popped elements is %d",stack[top]);
73          top--;
74      }
75  }
76  void display()
77  {
78      if(top>=0)
79      {
80          printf("\n The elements in stack \n");
81          for(i=top; i>=0; i--)
82              printf("%d\n",stack[i]);
83          printf("Press Next operation\n");
84      }
85      else
86      {
87          printf("The stack is empty\n");
88      }
89
90  }
```

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```
Enter the size of stack:
10
stack operations:
1.PUSH
2.POP
3.DISPLAY
4.TERMINATE
Enter desired operation:
3
The stack is empty
Enter desired operation:
1
 Enter value to be pushed:
2
Enter desired operation:
3

 The elements in stack
2
Press Next operation
Enter desired operation:
```