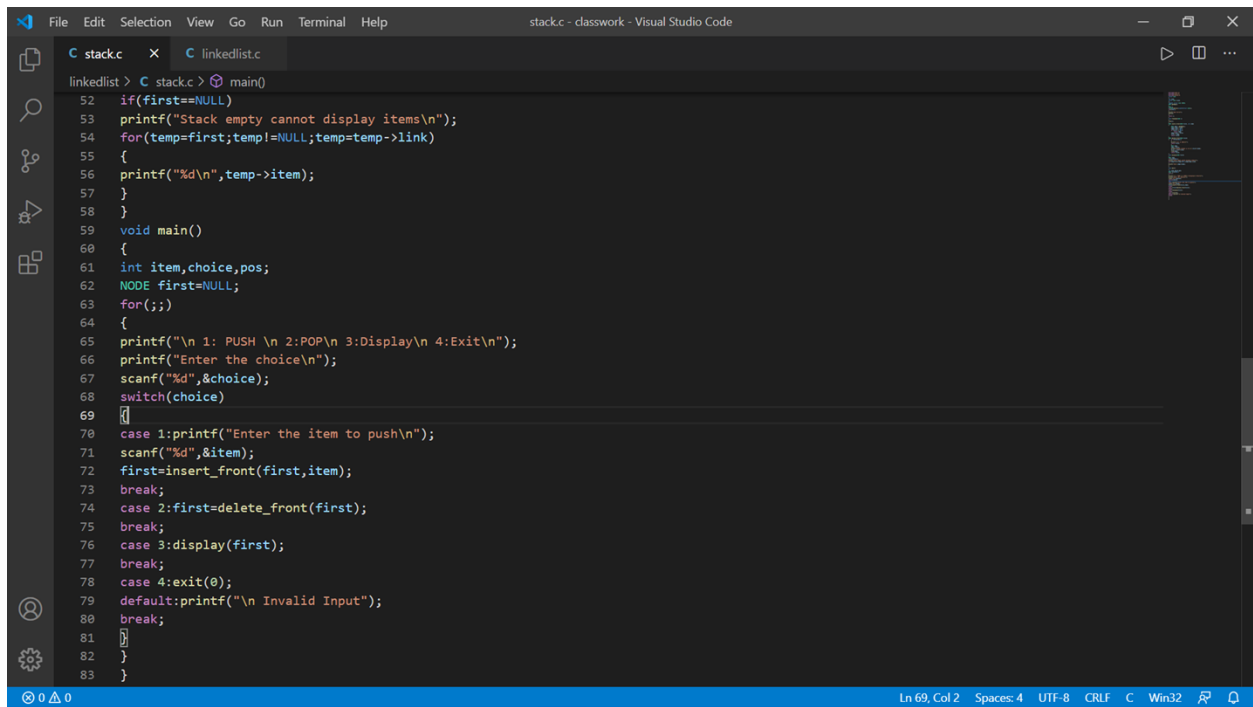


```
File Edit Selection View Go Run Terminal Help stack.c - classwork - Visual Studio Code

C stack.c X C linkedlist.c
linkedList > C stack.c > main()
1 #include<stdio.h>
2 #include<conio.h>
3 #include<stdlib.h>
4 struct node
5 {
6     int item;
7     struct node *link;
8 };
9 typedef struct node *NODE;
10 NODE getNode()
11 {
12     NODE x;
13     x=(NODE)malloc(sizeof(struct node));
14     if(x==NULL)
15     {
16         printf("mem full\n");
17         exit(0);
18     }
19     return x;
20 }
21 void freenode(NODE x)
22 {
23     free(x);
24 }
25 NODE insert_front(NODE first, int item)
26 {
27     NODE temp = getNode();
28     temp->item = item;
29     temp->link = NULL;
30     if (first == NULL)
31         return temp;
32     temp->link = first;
```

```
File Edit Selection View Go Run Terminal Help stack.c - classwork - Visual Studio Code

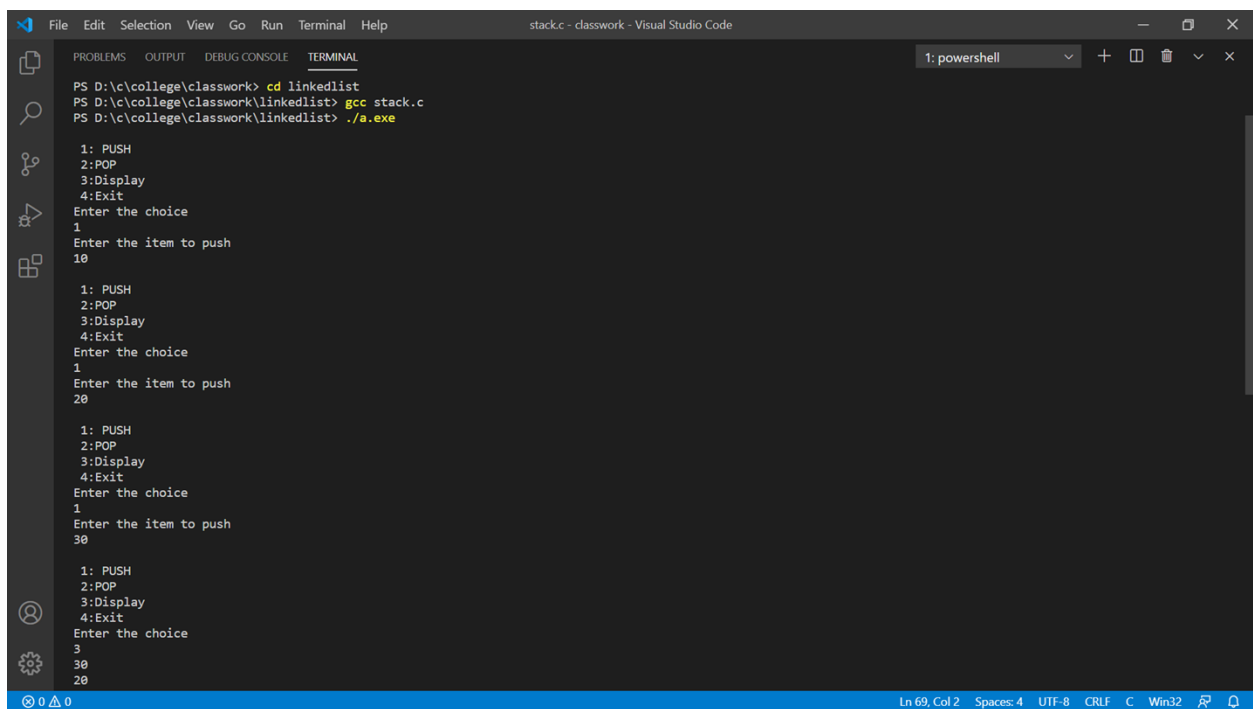
C stack.c X C linkedlist.c
linkedList > C stack.c > main()
30     if (first == NULL)
31         return temp;
32     temp->link = first;
33     first = temp;
34     return first;
35 }
36 NODE delete_front(NODE first)
37 {
38     if (first==NULL)
39     {
40         printf("list is empty\n");
41         return first;
42     }
43     NODE temp;
44     temp = first;
45     printf("Popped element is %d \n",first->item);
46     first = first->link;
47     free(temp);
48     return first;
49 }
50 void display(NODE first)
51 {
52     NODE temp;
53     if(first==NULL)
54     printf("Stack empty cannot display items\n");
55     for(temp=first;temp!=NULL;temp=temp->link)
56     {
57         printf("%d\n",temp->item);
58     }
59 }
60 void main()
61 {
62     int item,choice,pos;
```



```
File Edit Selection View Go Run Terminal Help
stack.c - classwork - Visual Studio Code

C stack.c X C linkedlist.c
linkedlist > C stack.c > main()
52 if(first==NULL)
53 printf("Stack empty cannot display items\n");
54 for(temp=first;temp!=NULL;temp=temp->link)
55 {
56 printf("%d\n",temp->item);
57 }
58 }
59 void main()
60 {
61 int item,choice,pos;
62 NODE first=NULL;
63 for(;;)
64 {
65 printf("\n 1: PUSH \n 2:POP\n 3:Display\n 4:Exit\n");
66 printf("Enter the choice\n");
67 scanf("%d",&choice);
68 switch(choice)
69 {
70 case 1:printf("Enter the item to push\n");
71 scanf("%d",&item);
72 first=insert_front(first,item);
73 break;
74 case 2:first=delete_front(first);
75 break;
76 case 3:display(first);
77 break;
78 case 4:exit(0);
79 default:printf("\n Invalid Input");
80 break;
81 }
82 }
83 }
```

Ln 69, Col 2 Spaces: 4 UTF-8 CRLF C Win32



```
File Edit Selection View Go Run Terminal Help
stack.c - classwork - Visual Studio Code

1: powershell
PS D:\college\classwork> cd linkedlist
PS D:\college\classwork\linkedlist> gcc stack.c
PS D:\college\classwork\linkedlist> ./a.exe

1: PUSH
2:POP
3:Display
4:Exit
Enter the choice
1
Enter the item to push
10

1: PUSH
2:POP
3:Display
4:Exit
Enter the choice
1
Enter the item to push
20

1: PUSH
2:POP
3:Display
4:Exit
Enter the choice
1
Enter the item to push
30

1: PUSH
2:POP
3:Display
4:Exit
Enter the choice
3
30
20
```

Ln 69, Col 2 Spaces: 4 UTF-8 CRLF C Win32

```
File Edit Selection View Go Run Terminal Help stack.c - classwork - Visual Studio Code
1: powershell
Enter the choice
3
30
20
10

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 30

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 20

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 10

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
list is empty

1: PUSH
```

```
File Edit Selection View Go Run Terminal Help stack.c - classwork - Visual Studio Code
1: powershell
1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 30

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 20

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
Popped element is 10

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
2
list is empty

1: PUSH
2: POP
3: Display
4: Exit
Enter the choice
4
PS D:\c\college\classwork\linkedList>
```