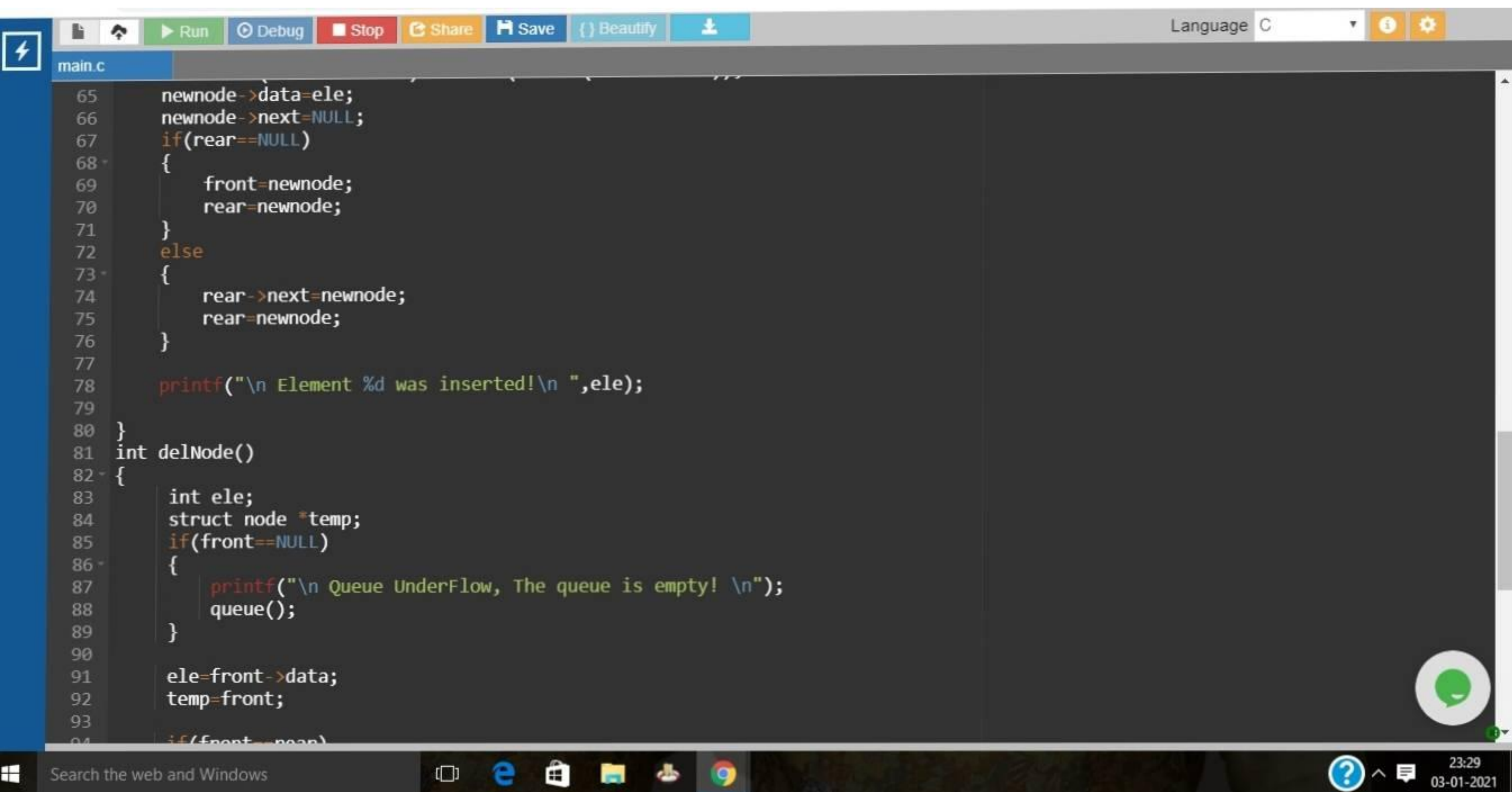
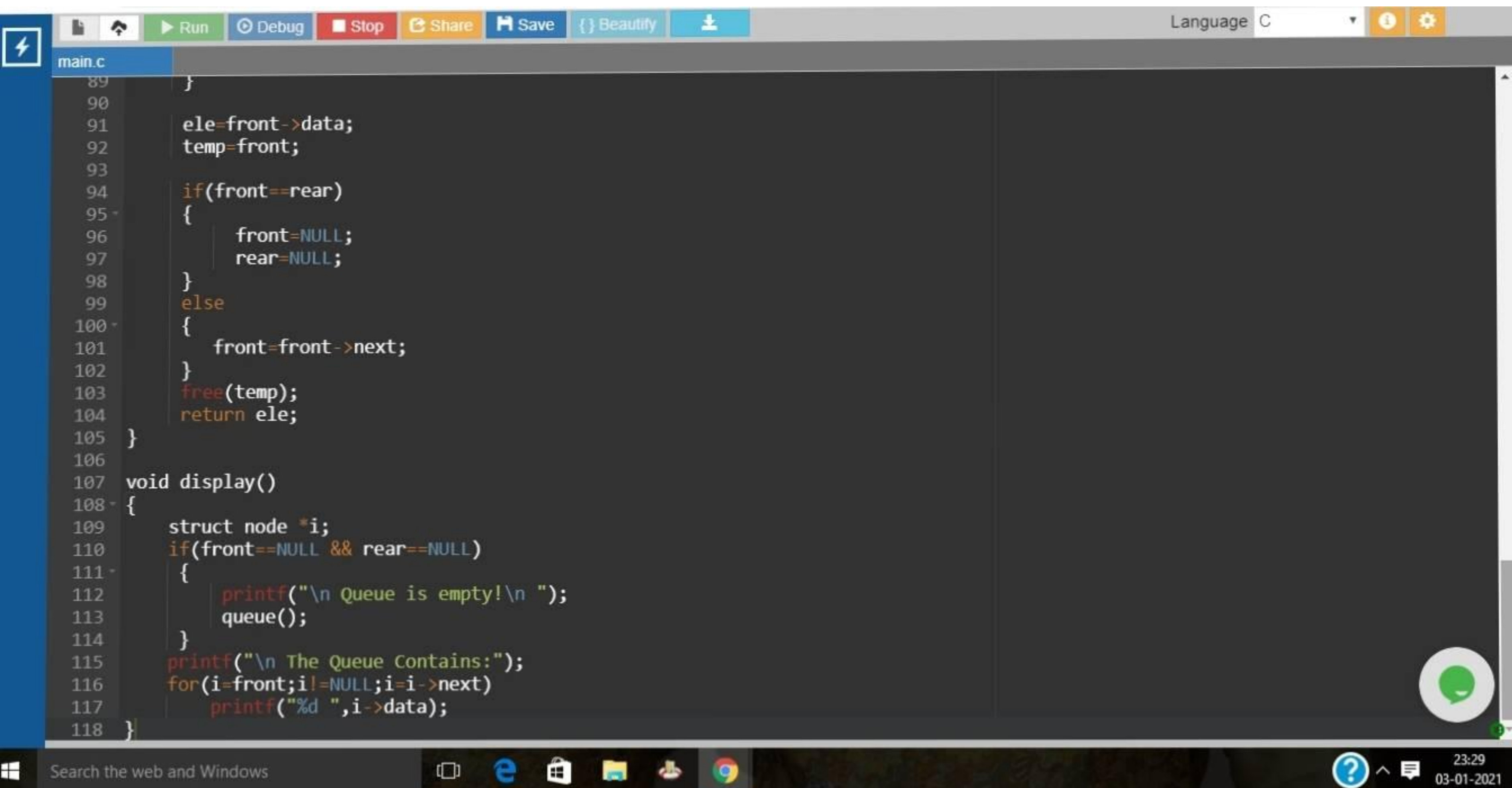


```
9 #include<stdio.h>
10 #include<stdlib.h>
11 struct node *front=NULL, *rear=NULL;
12
13 struct node
14 {
15     int data;
16     struct node *next;
17 };
18
19 void queue();
20 void insNode(int);
21 int delNode();
22 void display();
23
24 int main()
25 {
26     queue();
27
28     return 1;
29 }
30
31 void queue()
32 {
33     int choice=0,ele=0;
34     do
35     {
36         printf("\n Enter the choice:\n 1.Insert.\n 2.Delete.\n 3.Display.\n 4.Exit\n Choice:");
37         scanf("%d",&choice);
38         switch(choice)
```

```
main.c
37 scanf("%d",&choice);
38 switch(choice)
39 {
40 case 1:
41     printf("\n Enter the element to Insert: ");
42     scanf("%d",&ele);
43     insNode(ele);
44     break;
45 case 2:
46     ele=delNode();
47     printf("\n %d was deleted from Queue ",ele);
48     break;
49 case 3:
50     display();
51     break;
52 case 4:
53     exit(0);
54 default:
55     printf("\n Input Error Try Again! ");
56     queue();
57 }
58 }while(1);
59 }
60
61 void insNode(int ele)
62 {
63     struct node *newnode;
64     newnode =(struct node *) malloc (sizeof(struct node));
65     newnode->data=ele;
66     newnode->next=NULL;
```



```
65 newnode->data=ele;
66 newnode->next=NULL;
67 if(rear==NULL)
68 {
69     front=newnode;
70     rear=newnode;
71 }
72 else
73 {
74     rear->next=newnode;
75     rear=newnode;
76 }
77
78 printf("\n Element %d was inserted!\n ",ele);
79
80 }
81 int delNode()
82 {
83     int ele;
84     struct node *temp;
85     if(front==NULL)
86     {
87         printf("\n Queue UnderFlow, The queue is empty! \n");
88         queue();
89     }
90
91     ele=front->data;
92     temp=front;
93
94     if(front==rear)
```

```
89 }
90
91 ele=front->data;
92 temp=front;
93
94 if(front==rear)
95 {
96     front=NULL;
97     rear=NULL;
98 }
99 else
100 {
101     front=front->next;
102 }
103 free(temp);
104 return ele;
105 }
106
107 void display()
108 {
109     struct node *i;
110     if(front==NULL && rear==NULL)
111     {
112         printf("\n Queue is empty!\n ");
113         queue();
114     }
115     printf("\n The Queue Contains:");
116     for(i=front;i!=NULL;i=i->next)
117         printf("%d ",i->data);
118 }
```

main.c

Language C

Search the web and Windows

23:29 03-01-2021

```
input
Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:1

Enter the element to Insert: 10

Element 10 was inserted!

Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:1

Enter the element to Insert: 20

Element 20 was inserted!

Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
```

```
input
Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:1

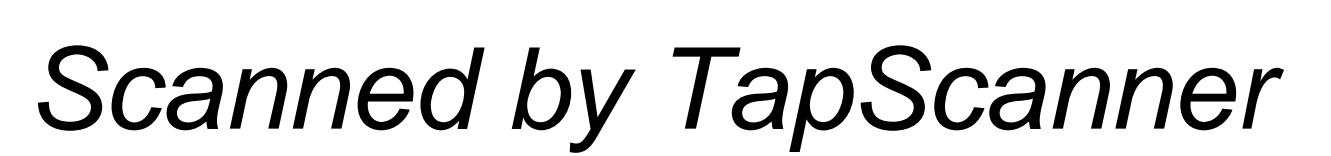
Enter the element to Insert: 30

Element 30 was inserted!

Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:3

The Queue Contains:10 20 30
Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:2

10 was deleted from Queue
Enter the choice:
```




```
input
The Queue Contains:30
Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:2

30 was deleted from Queue
Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:3

Queue is empty!

Enter the choice:
1.Insert.
2.Delete.
3.Display.
4.Exit
Choice:4

...Program finished with exit code 0
Press ENTER to exit console.
```