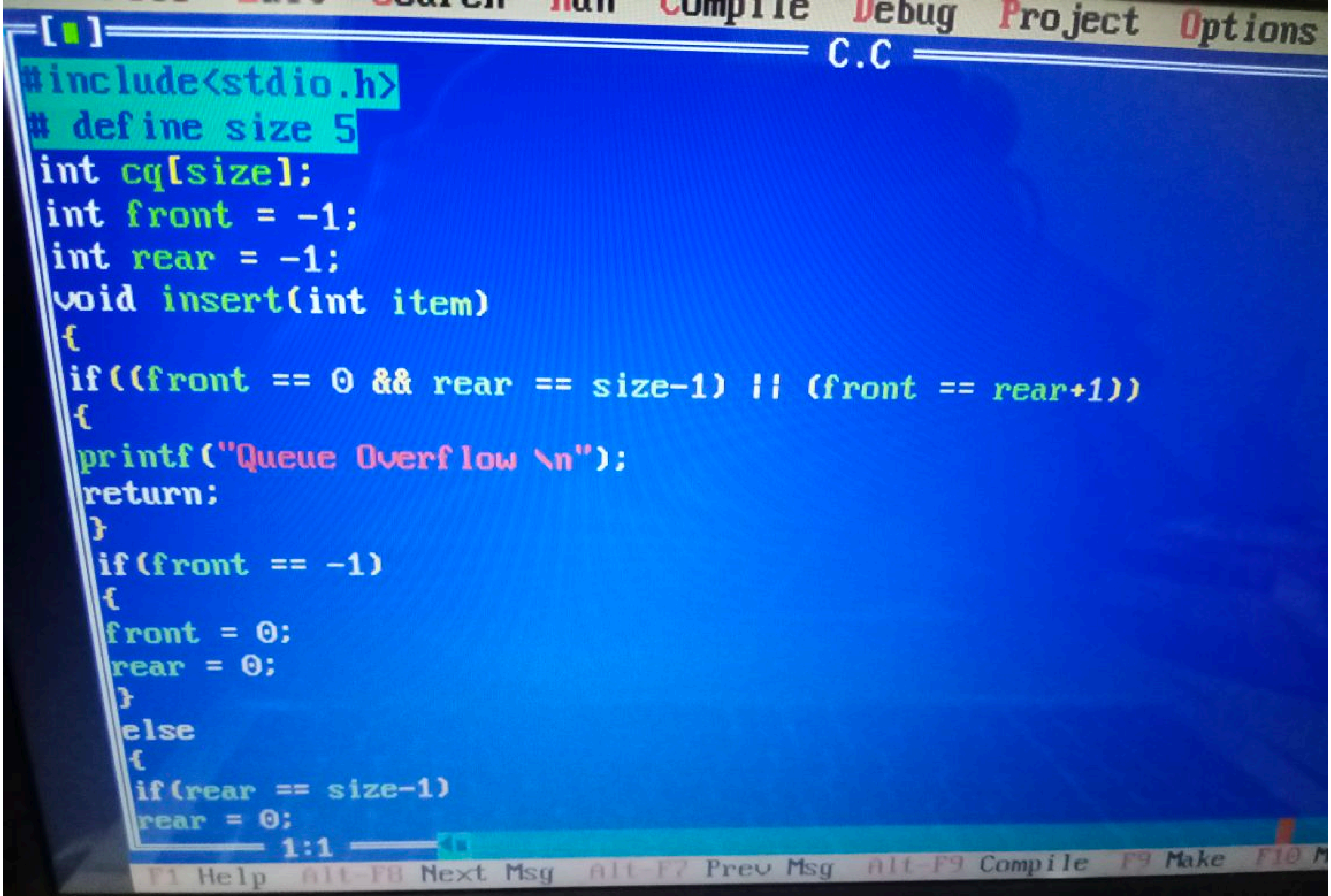
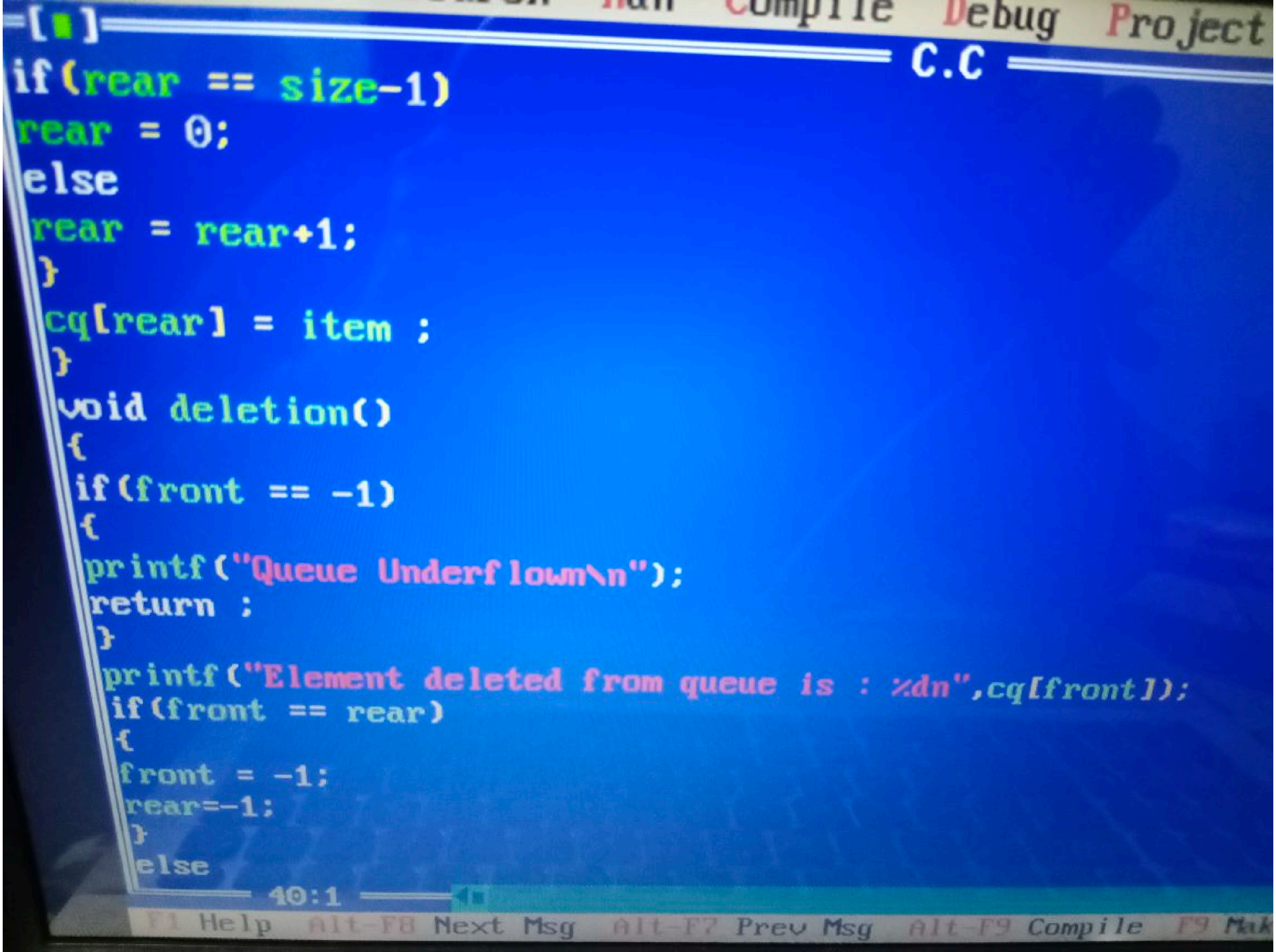
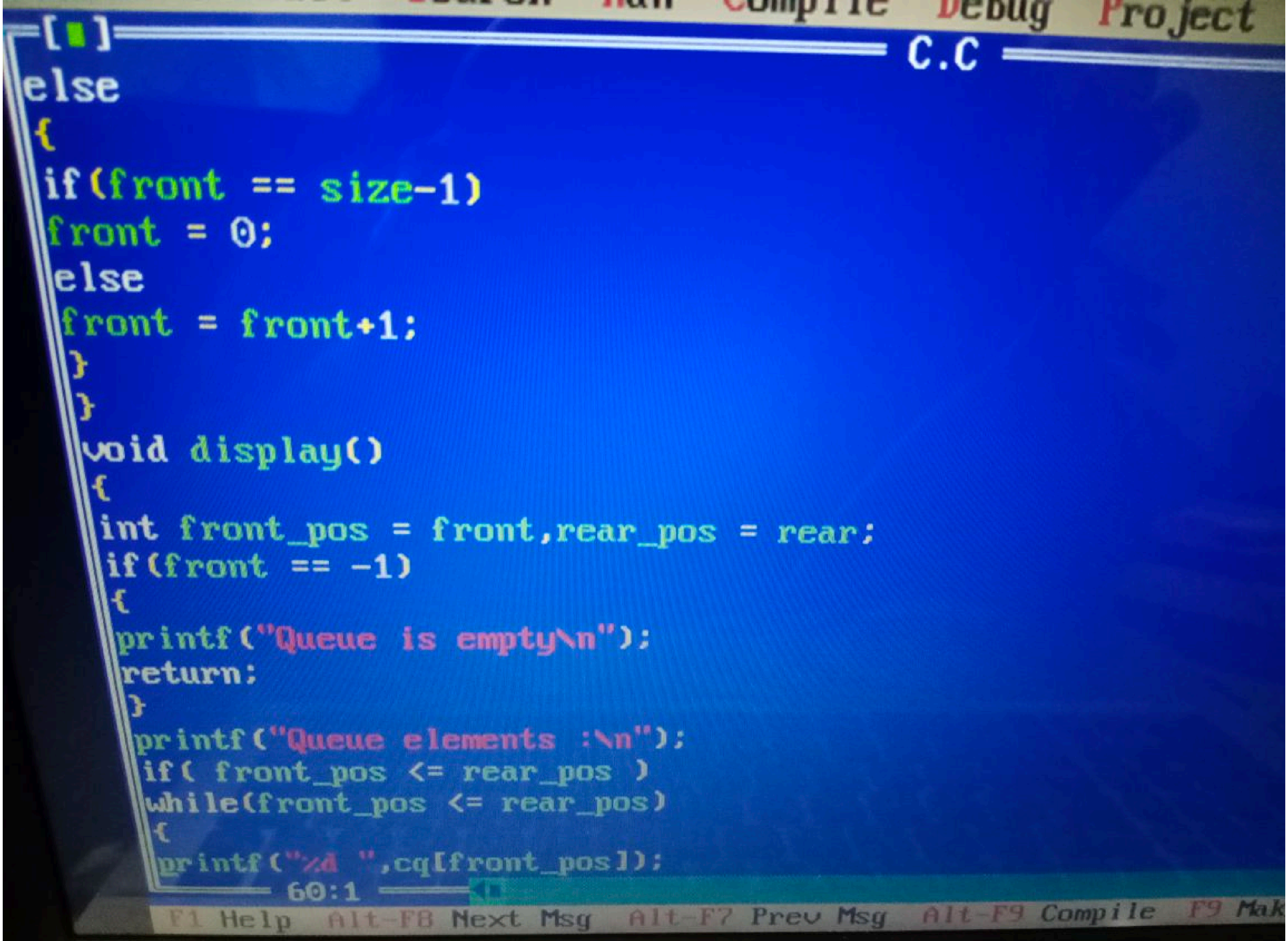


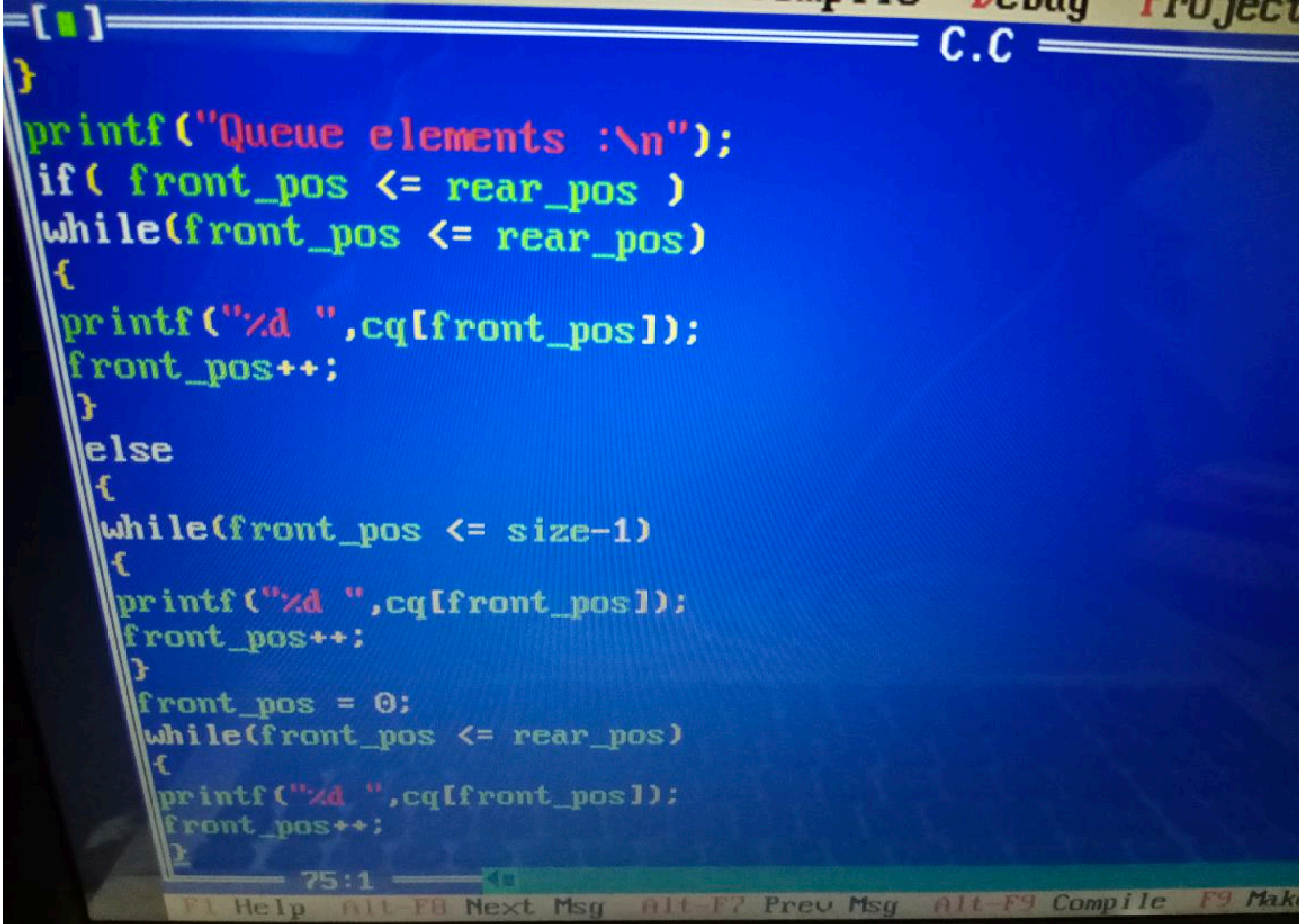
```
#include<stdio.h>
# define size 5
int cq[size];
int front = -1;
int rear = -1;
void insert(int item)
{
if((front == 0 && rear == size-1) || (front == rear+1))
{
printf("Queue Overflow \n");
return;
}
if(front == -1)
{
front = 0;
rear = 0;
}
else
{
if(rear == size-1)
rear = 0;
```


Run Compile Debug Project
[■]
C.C
40:1
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Mak

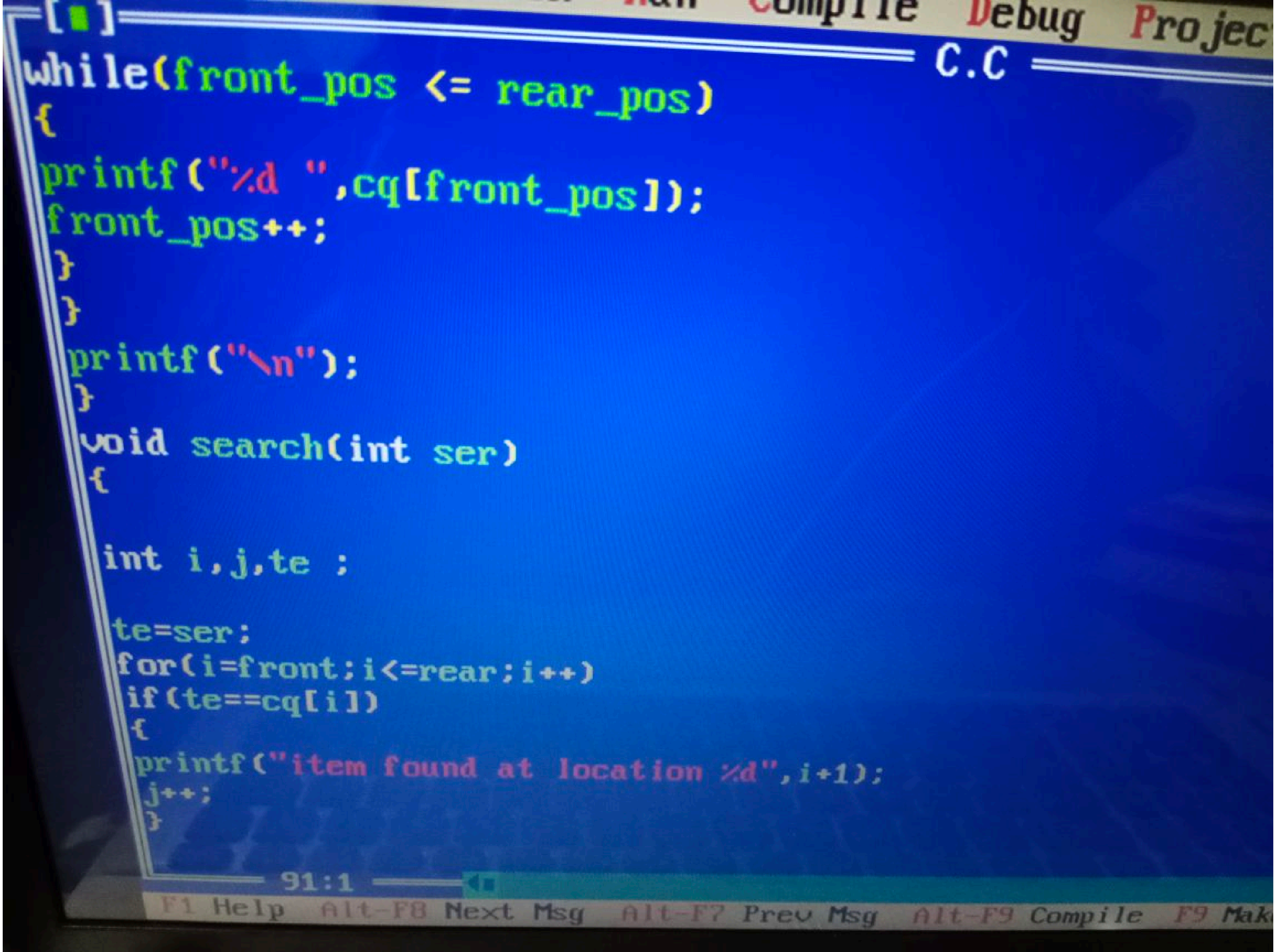
```
if(rear == size-1)
rear = 0;
else
rear = rear+1;
}
cq[rear] = item ;
}
void deletion()
{
if(front == -1)
{
printf("Queue Underflow\n");
return ;
}
printf("Element deleted from queue is : %dn",cq[front]);
if(front == rear)
{
front = -1;
rear=-1;
}
else
```



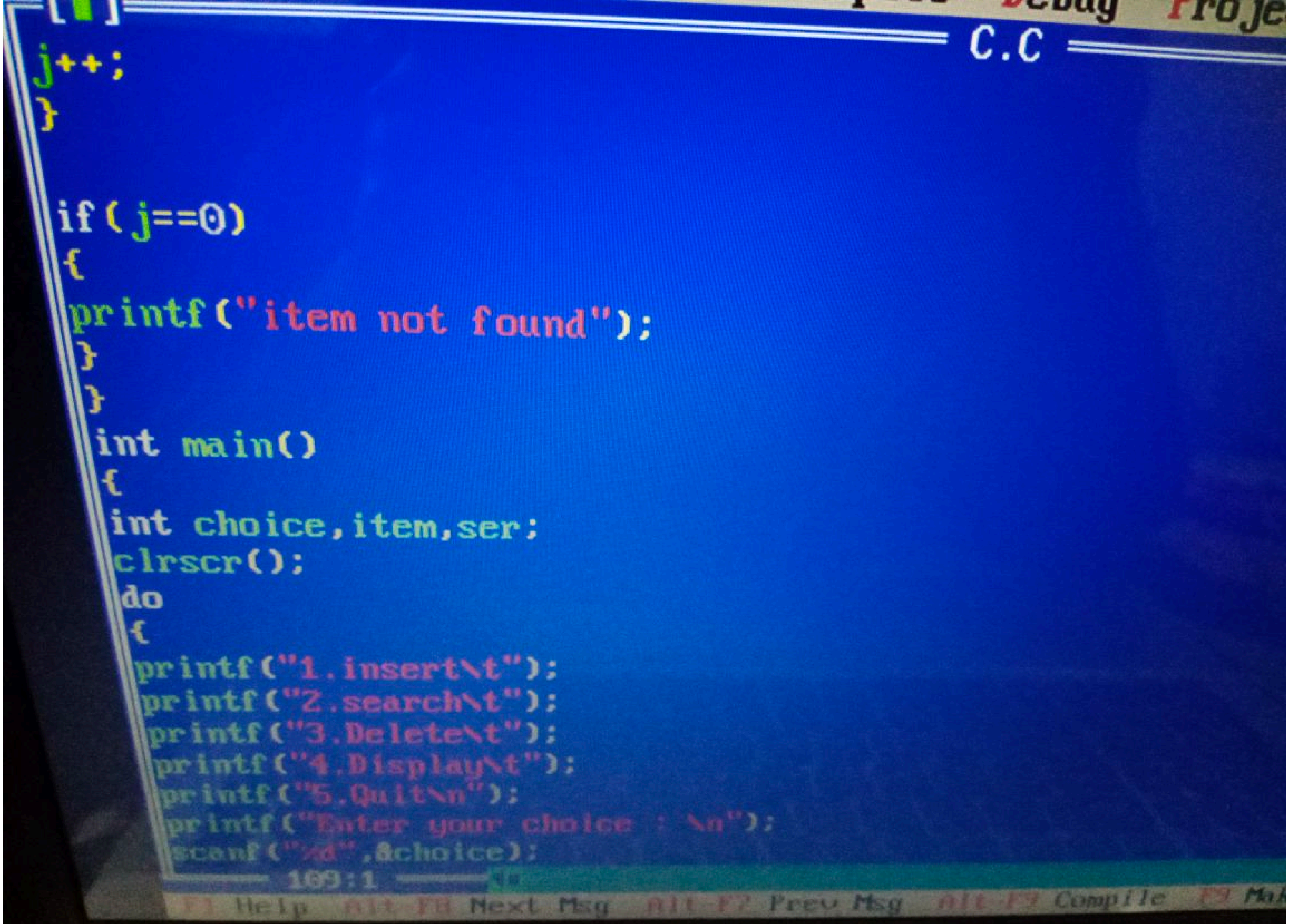
```
else
{
if(front == size-1)
front = 0;
else
front = front+1;
}
}
void display()
{
int front_pos = front,rear_pos = rear;
if(front == -1)
{
printf("Queue is empty\n");
return;
}
printf("Queue elements :\n");
if( front_pos <= rear_pos )
while(front_pos <= rear_pos)
{
printf("%d ",cq[front_pos]);
```



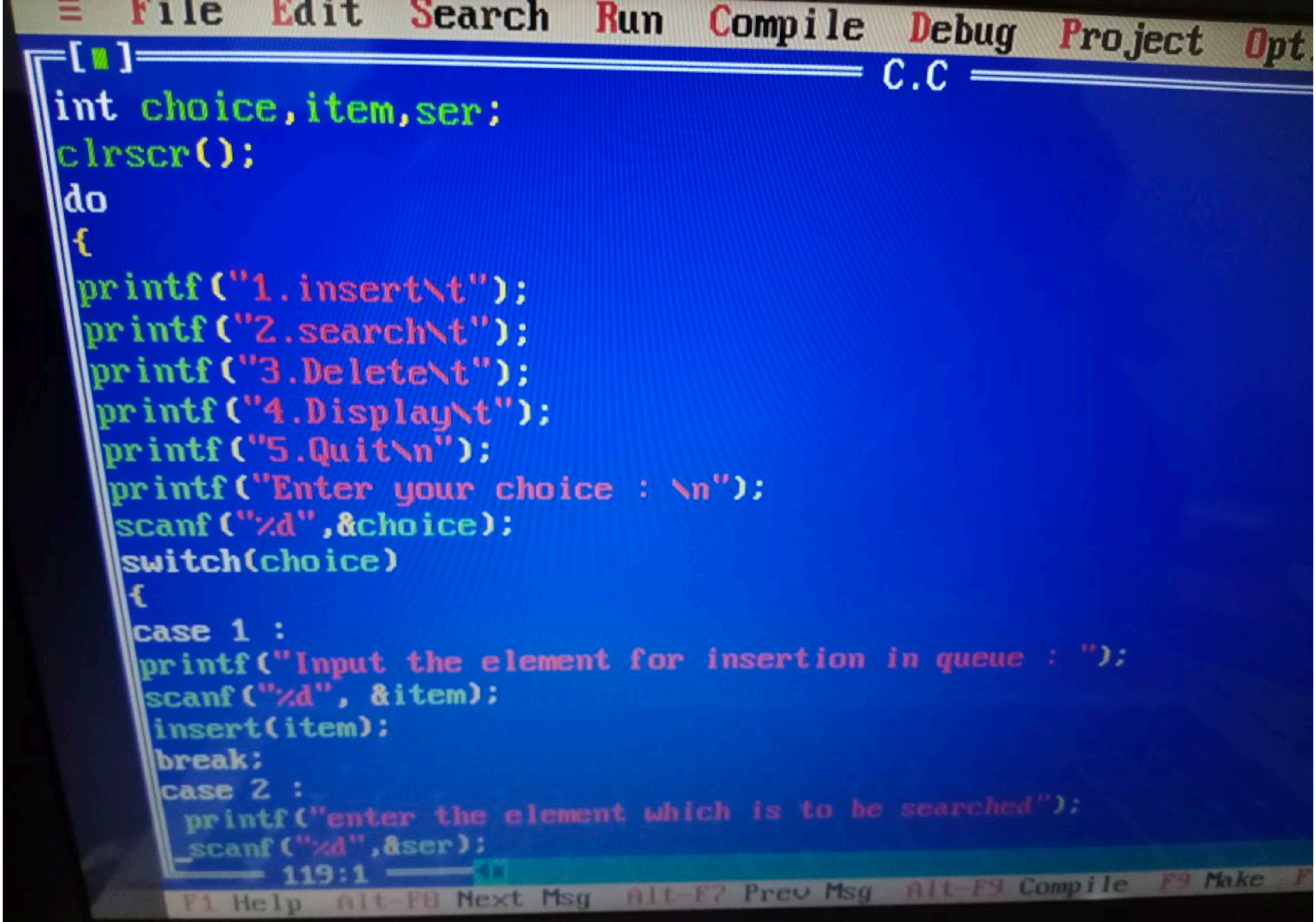
```
}
printf("Queue elements :\n");
if( front_pos <= rear_pos )
while(front_pos <= rear_pos)
{
printf("%d ",cq[front_pos]);
front_pos++;
}
else
{
while(front_pos <= size-1)
{
printf("%d ",cq[front_pos]);
front_pos++;
}
front_pos = 0;
while(front_pos <= rear_pos)
{
printf("%d ",cq[front_pos]);
front_pos++;
}
```



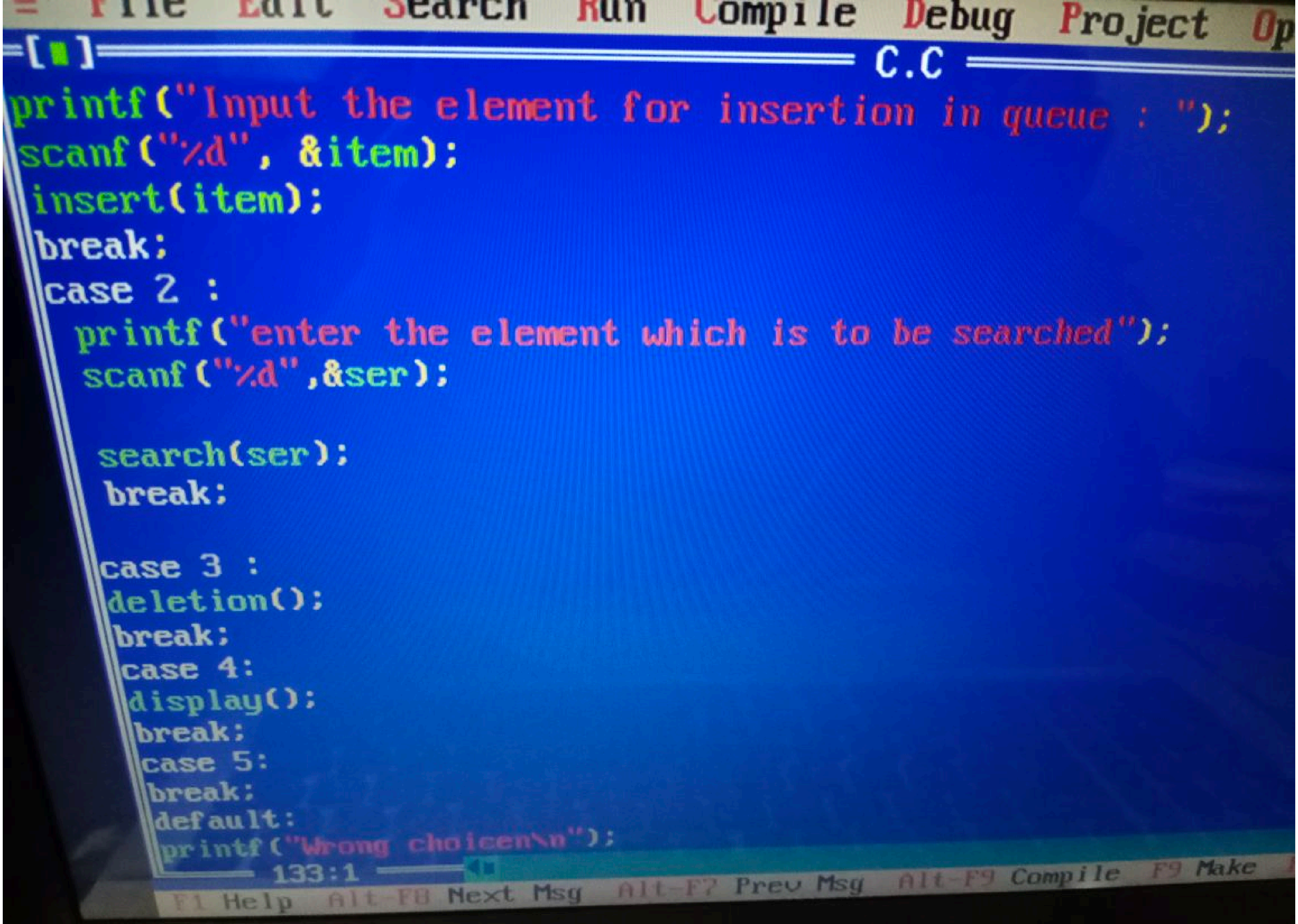
```
while(front_pos <= rear_pos)
{
printf("%d ",cq[front_pos]);
front_pos++;
}
}
printf("\n");
}
void search(int ser)
{


int i,j,te ;

te=ser;
for(i=front;i<=rear;i++)
if(te==cq[i])
{
printf("item found at location %d",i+1);
j++;
}
```



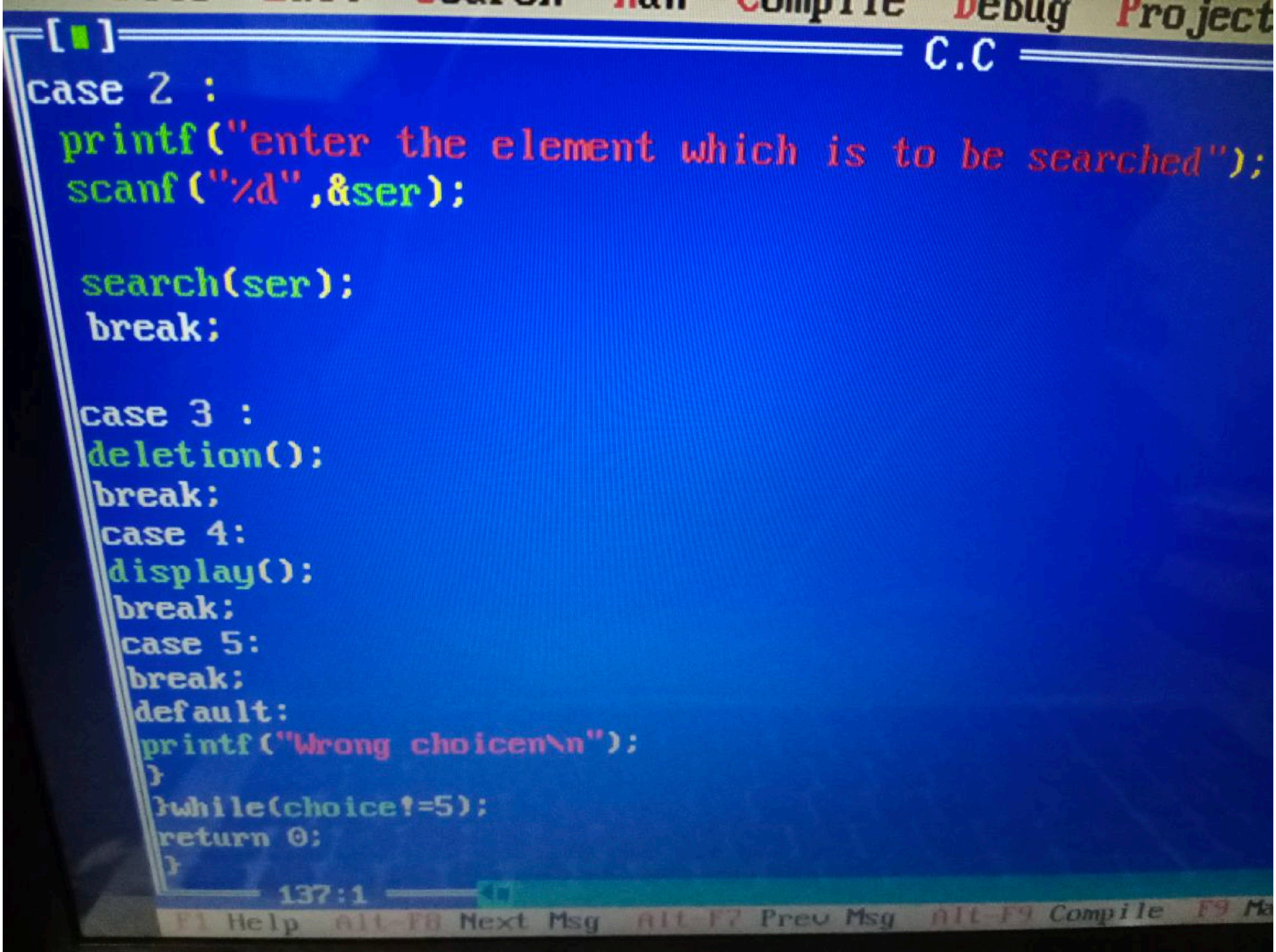
```
j++;
}


if(j==0)
{
printf("item not found");
}
}
int main()
{
int choice,item,ser;
clrscr();
do
{
printf("1.insert\t");
printf("2.search\t");
printf("3.Delete\t");
printf("4.Display\t");
printf("5.Quit\n");
printf("Enter your choice : \n");
scanf("%d",&choice);
```


≡ File Edit Search Run Compile Debug Project Opt
[■]
C.C
119:1
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make

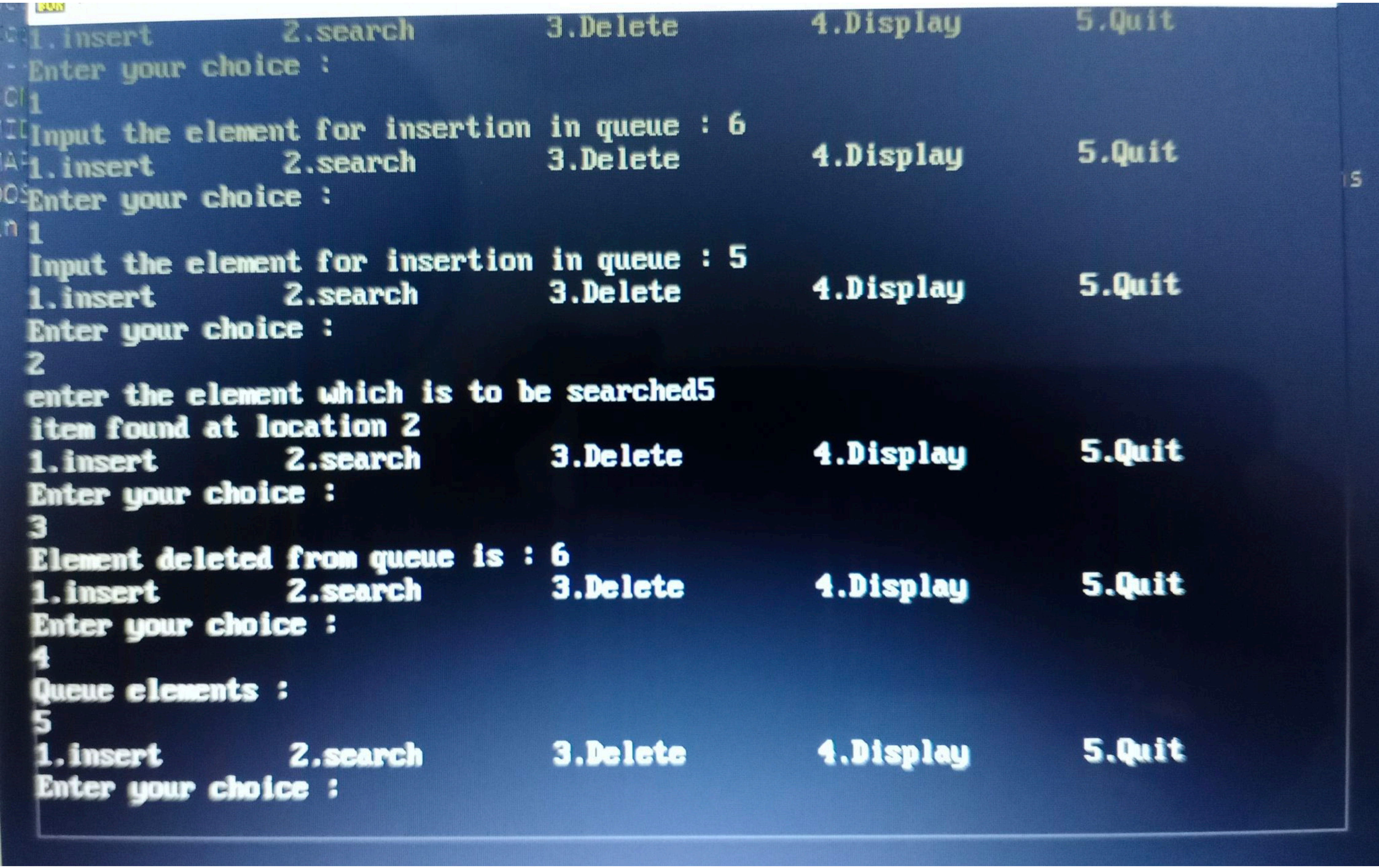
```
int choice,item,ser;
clrscr();
do
{
printf("1.insert\t");
printf("2.search\t");
printf("3.Delete\t");
printf("4.Display\t");
printf("5.Quit\n");
printf("Enter your choice : \n");
scanf("%d",&choice);
switch(choice)
{
case 1 :
printf("Input the element for insertion in queue : ");
scanf("%d", &item);
insert(item);
break;
case 2 :
 printf("enter the element which is to be searched");
 scanf("%d",&ser);
```


≡ File Edit Search Run Compile Debug Project Op
[■]
C.C
133:1
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make

```
printf("Input the element for insertion in queue : ");
scanf("%d", &item);
insert(item);
break;
case 2 :
 printf("enter the element which is to be searched");
 scanf("%d",&ser);

 search(ser);
 break;

case 3 :
deletion();
break;
case 4:
display();
break;
case 5:
break;
default:
printf("Wrong choicen\n");
```



```
case 2 :
 printf("enter the element which is to be searched");
 scanf("%d",&ser);

 search(ser);
 break;

case 3 :
deletion();
break;
case 4:
display();
break;
case 5:
break;
default:
printf("Wrong choicen\n");
}
}while(choice!=5);
return 0;
}
```



```
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
1
Input the element for insertion in queue : 6
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
1
Input the element for insertion in queue : 5
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
2
enter the element which is to be searched5
item found at location 2
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
3
Element deleted from queue is : 6
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
4
Queue elements :
5
1.insert         2.search         3.Delete         4.Display         5.Quit
Enter your choice :
```