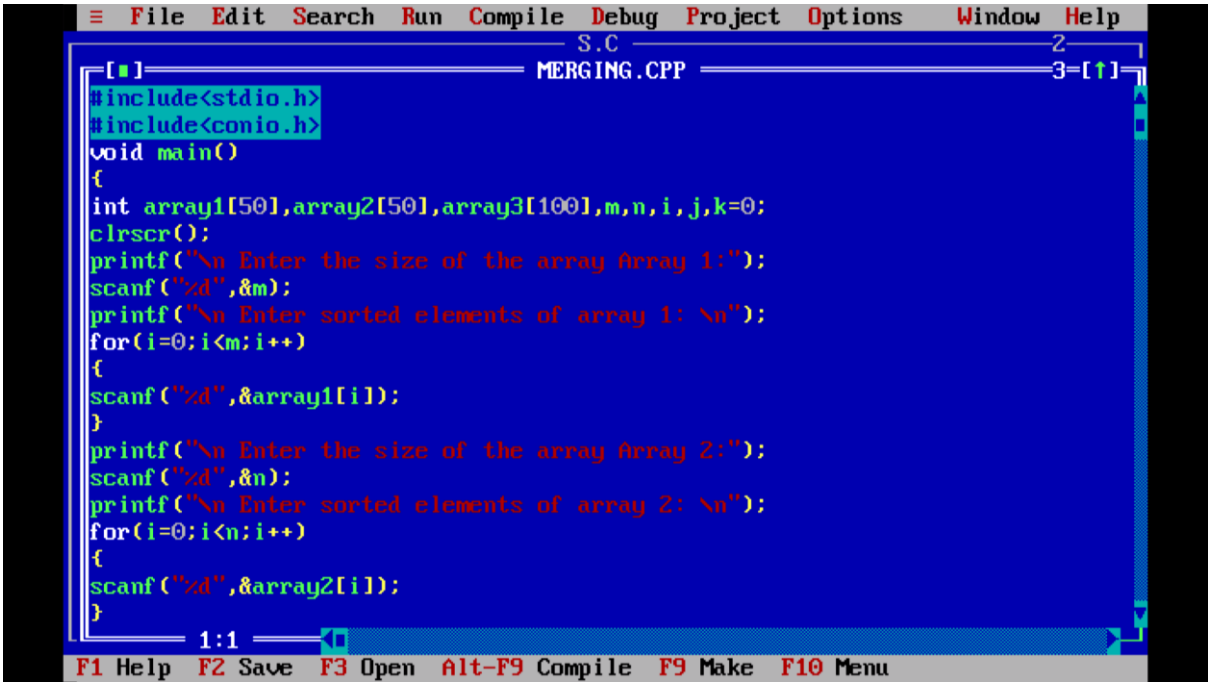
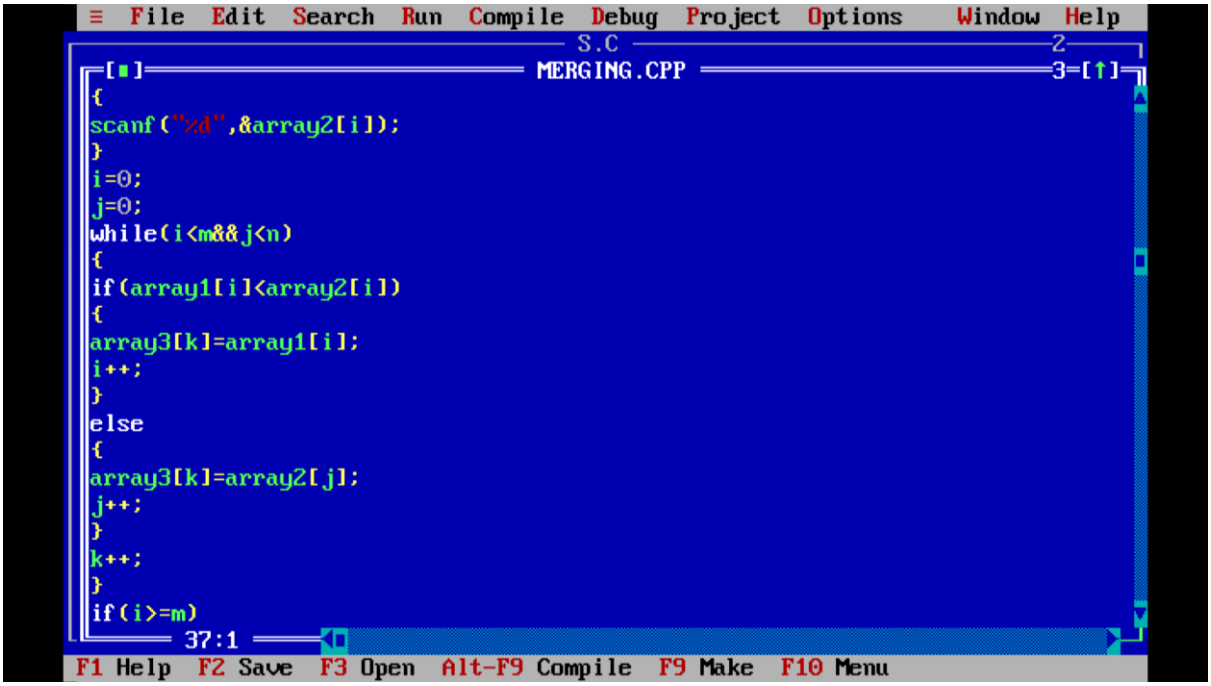
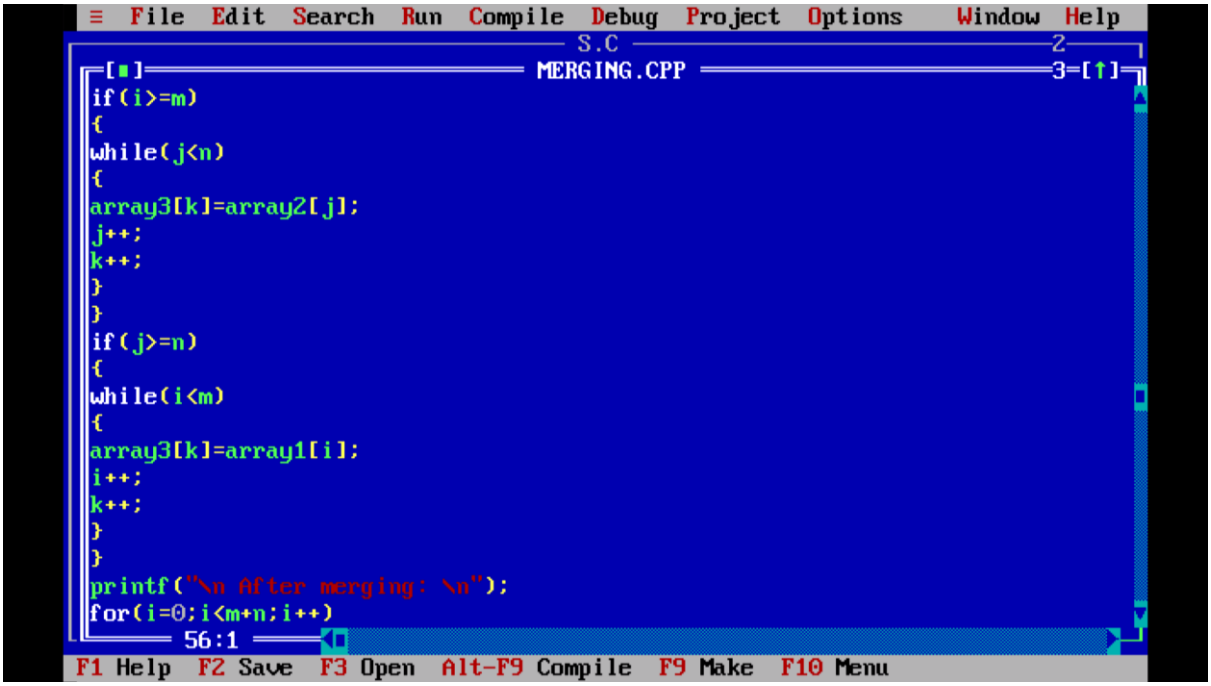
1. Merging of sorted array





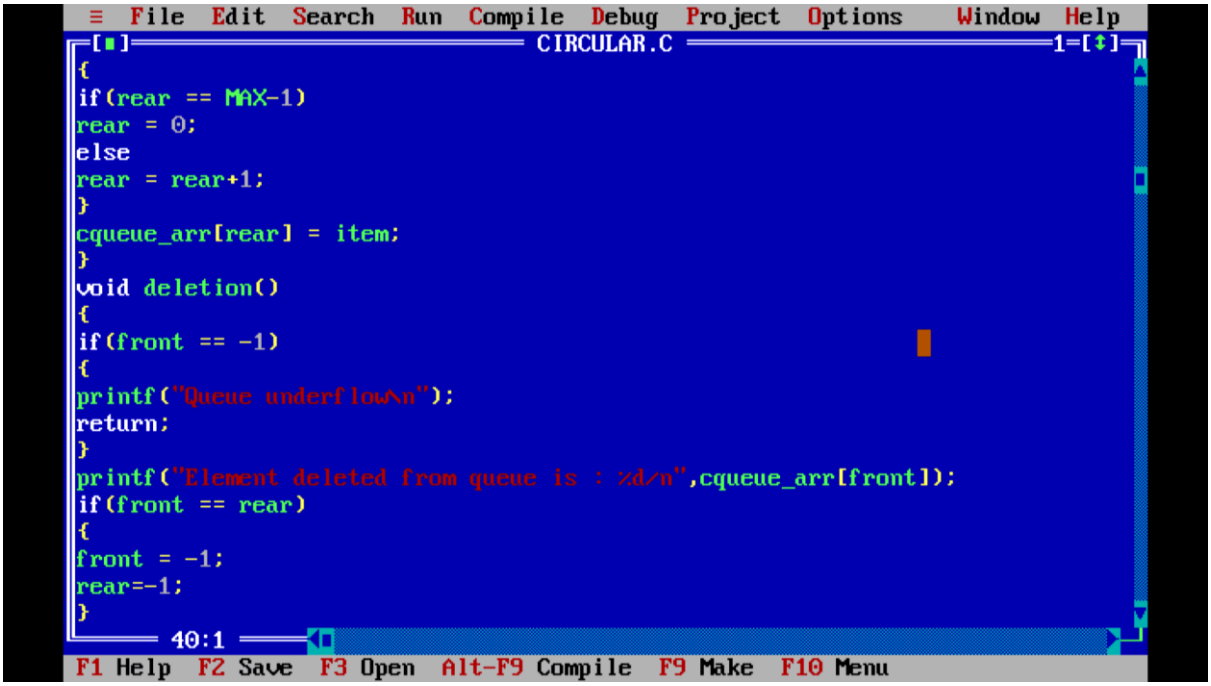

File Edit Search Run Compile Debug Project Options Window Help
S.C
MERGING.CPP
if(i>=m)
{
while(j<n)
{
array3[k]=array2[j];
j++;
k++;
}
}
if(j>=n)
{
while(i<m)
{
array3[k]=array1[i];
i++;
k++;
}
}
printf("\n After merging: \n");
for(i=0;i<m+n;i++)
56:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

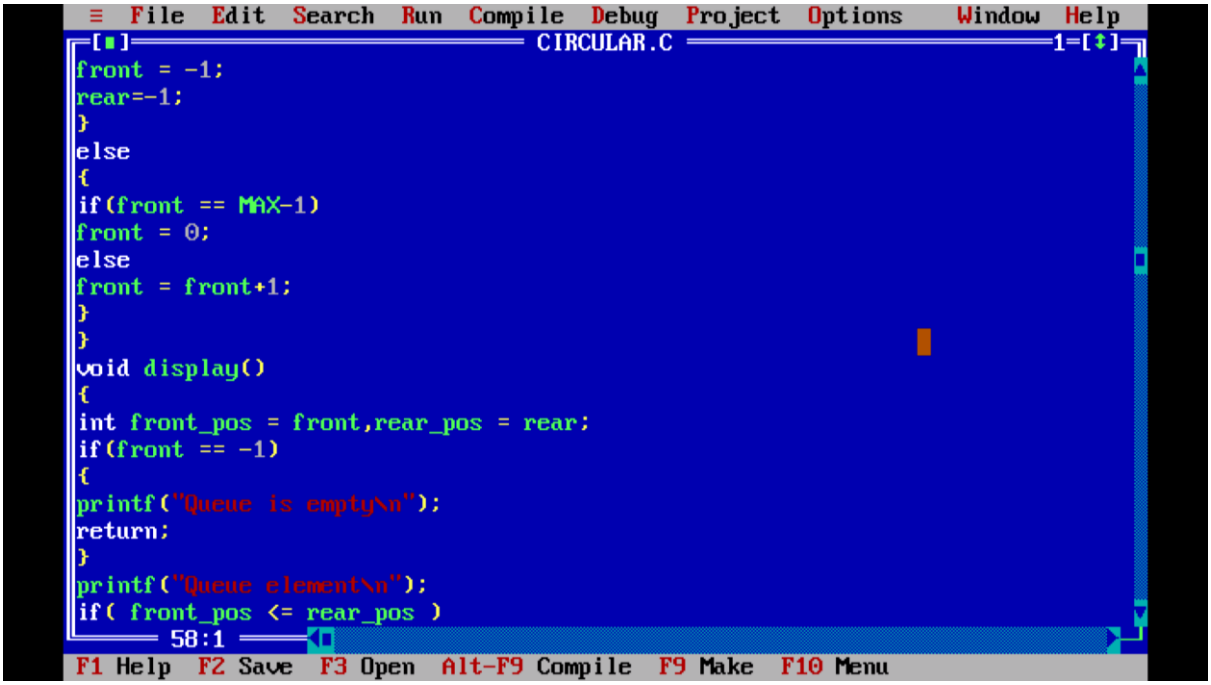

File Edit Search Run Compile Debug Project Options Window Help
S.C
MERGING.CPP
}
}
if(j>=n)
{
while(i<m)
{
array3[k]=array1[i];
i++;
k++;
}
}
printf("\n After merging: \n");
for(i=0;i<m+n;i++)
{
printf("\n%d",array3[i]);
}
getch();
}
63:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

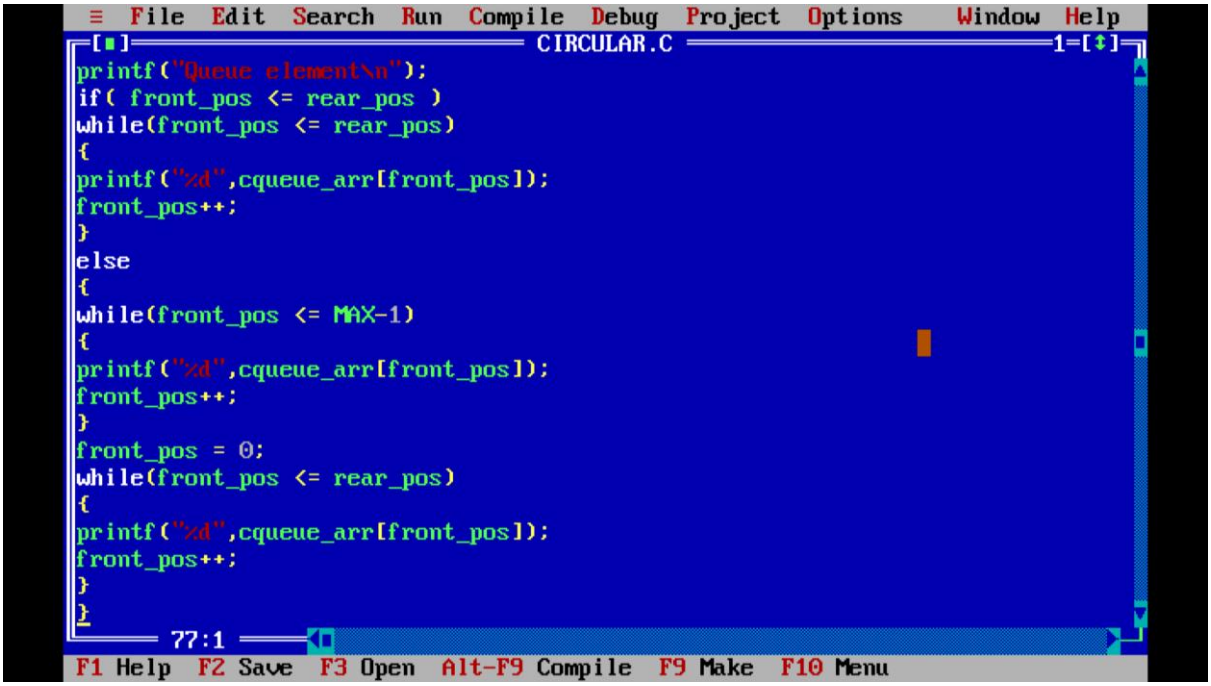
```
 Enter the size of the array Array 1:3

 Enter sorted elements of array 1:
2 1 1

 Enter the size of the array Array 2:3

 Enter sorted elements of array 2:
2 1 1

 After merging:

2
1
1
2
1
1
```

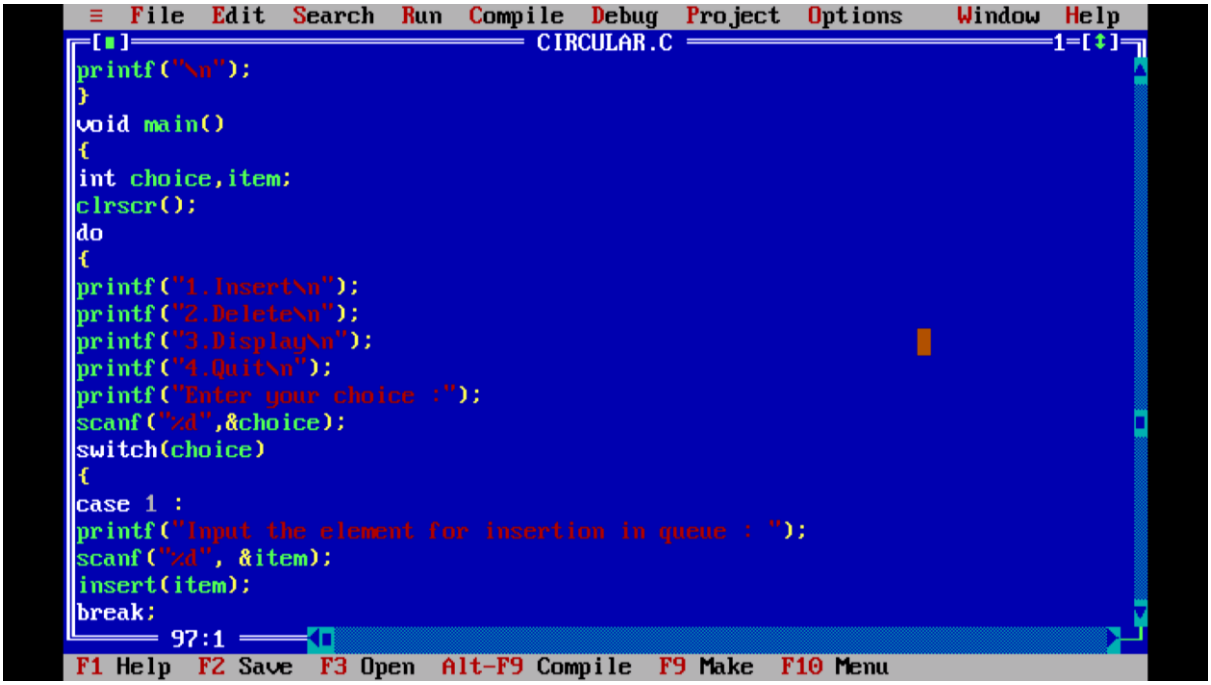
2. Circular queue

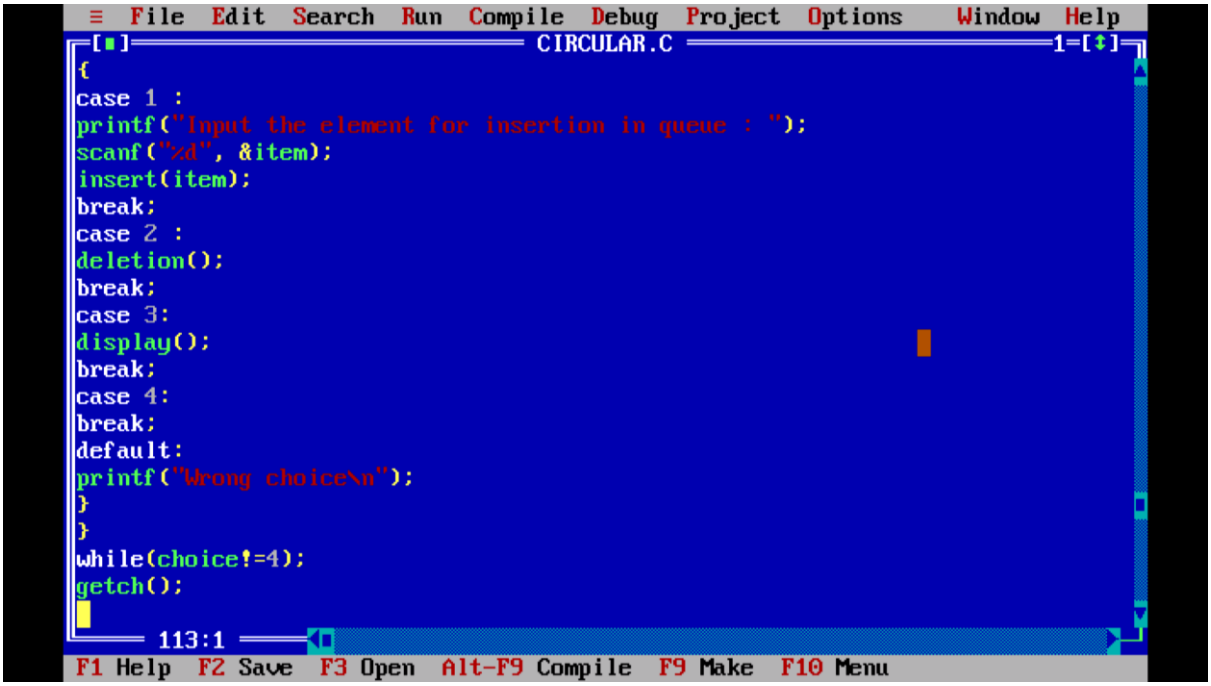
```
 File  Edit  Search  Run  Compile  Debug  Project  Options    Window  Help
[■]                        CIRCULAR.C                              1=[↕]
#include<stdio.h>
#include<conio.h>
# define MAX 5
int cqueue_arr[MAX];
int front = -1;
int rear = -1;
void insert(int item)
{
if((front == 0 && rear == MAX-1) || (front == rear+1))
{
printf("Queue overflow \n");
return;
}
if(front == -1)
{
front = 0;
rear = 0;
}
else
{
if(rear == MAX-1)
                          1:1
F1 Help  F2 Save  F3 Open  Alt-F9 Compile  F9 Make  F10 Menu
```

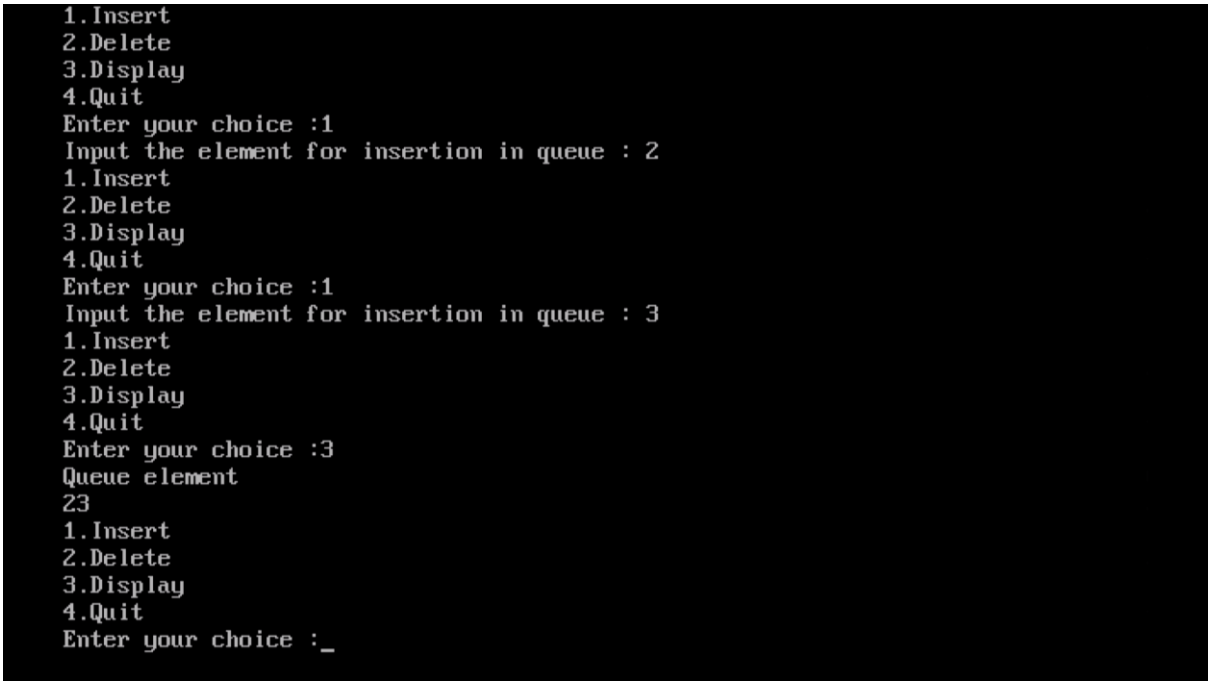

File Edit Search Run Compile Debug Project Options Window Help
CIRCULAR.C
{
if(rear == MAX-1)
rear = 0;
else
rear = rear+1;
}
cqueue_arr[rear] = item;
}
void deletion()
{
if(front == -1)
{
printf("Queue underflow\n");
return;
}
printf("Element deleted from queue is : %d\n",cqueue_arr[front]);
if(front == rear)
{
front = -1;
rear=-1;
}
40:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
CIRCULAR.C
front = -1;
rear=-1;
}
else
{
if(front == MAX-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 element\n");
if(front_pos <= rear_pos)
58:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
CIRCULAR.C
printf("Queue element\n");
if(front_pos <= rear_pos)
while(front_pos <= rear_pos)
{
printf("%d",cqueue_arr[front_pos]);
front_pos++;
}
else
{
while(front_pos <= MAX-1)
{
printf("%d",cqueue_arr[front_pos]);
front_pos++;
}
front_pos = 0;
while(front_pos <= rear_pos)
{
printf("%d",cqueue_arr[front_pos]);
front_pos++;
}
}
77:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
CIRCULAR.C
printf("\n");
}
void main()
{
int choice,item;
clrscr();
do
{
printf("1.Insert\n");
printf("2.Delete\n");
printf("3.Display\n");
printf("4.Quit\n");
printf("Enter your choice :");
scanf("%d",&choice);
switch(choice)
{
case 1 :
printf("Input the element for insertion in queue : ");
scanf("%d", &item);
insert(item);
break;
97:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
CIRCULAR.C
{
case 1 :
printf("Input the element for insertion in queue : ");
scanf("%d", &item);
insert(item);
break;
case 2 :
deletion();
break;
case 3:
display();
break;
case 4:
break;
default:
printf("Wrong choice\n");
}
}
while(choice!=4);
getch();
113:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :1
Input the element for insertion in queue : 2
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :1
Input the element for insertion in queue : 3
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :3
Queue element
23
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :_

```
Input the element for insertion in queue : 3
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :3
Queue element
23
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :2
Element deleted from queue is : 2/n1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :3
Queue element
3
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice :
```