```c
#include<stdio.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)
rear = 0;
else rear = rear+1;
}
cqueue_arr[rear] = item ;
}

void del()
{
 if (front == -1)
{
```

```c
printf("Queue Underflow\n");
return ;
}
printf("Element deleted from queue is : %d
\n",cqueue_arr[front]);
if(front == rear)
{
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 elements :\n");
if( front_pos <= rear_pos )
while(front_pos <= rear_pos)
{
printf("%d ",cqueue_arr[front_pos]); front_pos++;
}
else
{
```

```c
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++;
}
} printf("\n");
}
int search(int s)
{
int i;
for(i=front;i<=rear;i++)
{
if(s==cqueue_arr[i])
{
printf("element found at %d position \n",i+1);
}
}
}
int main()
{
int choice,item,s;
do
{
printf("1.Insert\n");
printf("2.Delete\n");
printf("3.Display\n");
```

```c
printf("4.Search\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;
case 2 : del();
break;
case 3: display();
break;
case 4: printf("enter the item to be searched for\n");
scanf("%d",&s);
search(s);
break;
case 5: exit ( 0 );
default: printf("\nWrong selection!!!Please try again!!!
\n");
}
}
while(choice!=4);
return 0;
}
```

```c
{
case 1 :
printf("Input the element for
scanf("%d", &item);
insert(item);
break;
case 2 :
del();
break;
case 3:
display();
break;
case 4:
printf("enter the item to be
scanf("%d",&s);
search(s);
break;
case 5:
exit( 0 );
break;
default:
printf("Wrong choice\n");
}
}
while(choice!=4);
return 0;
}
```

```c
}
int search(int s)
{
int i;
for(i=front;i<=rear;i++)
{
if(s==cqueue_arr[i])
{
printf("element found at %d po
}
}
}
int main()
{
int choice,item,s;
do
{
printf("1.Insert\n");
printf("2.Delete\n");
printf("3.Display\n");
printf("4.Search\n");
printf("5.Quit\n");
printf("Enter your choice : "
scanf("%d",&choice);
switch(choice)
{
case 1 :
```

Run   Debug   Stop

main.c

```c
 7
 8    ***********************
 9    #include<stdio.h>
10    # define MAX 5
11
12    int cqueue_arr[MAX];
13    int front = -1;
14    int rear = -1;
15
16
17    void insert(int item)
18    {
19    if((front == 0 && rear =
20    {
21    printf("Queue Overflow \
22    return;
23    }
24    if (front == -1)   /*If q
25    {
26    front = 0;
27    rear = 0;
28    }
29    else
30    {
31    if(rear == MAX-1)    /*re
32    rear = 0;
33    else
```

```
80  }
87  }
88  printf("\n");
```

input

```
Input the element for insertion
in queue : 3
1.Insert
2.Delete
3.Display
4.Search
5.Quit
Enter your choice : 1
Input the element for insertion
in queue : 4
1.Insert
2.Delete
3.Display
4.Search
5.Quit
Enter your choice : 1
Input the element for insertion
in queue : 5
1.Insert
2.Delete
3.Display
4.Search
5.Quit
Enter your choice :
```

```
Enter your choice : 1
Inset the element in queue : 3
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 4
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 2
Element deleted from queue is :
2
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 3
Queue is :
3 4
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice :
```

```
5.Quit
Enter your choice : 2
Element deleted from queue is :
2
1.Insert
2.Delete
3.Display
4.Search
5.Quit
Enter your choice : 3
Queue elements :
3  4  5
1.Insert
2.Delete
3.Display
4.Search
5.Quit
Enter your choice : 4
enter the item to be searched fo
r
4
element found at 3 position


...Program finished with exit co
de 0
Press ENTER to exit console.
```

Last modified: 9:50 p.m.