

```

#include<stdio.h>
# define max 3
void enqueue( int q[], int *f, int *r)
{
    if(*r-*f==max-1|| *r==*f-1)
        printf(" Queue is full\n\n");
    else
    {
        if(*r==-1)
            *f=*r=0;
        else
            *r=(*r+1)%max;
        printf("Enter the element:\n");
        scanf("%d", (&q[*r]));
    }
}

void dequeue(int q[], int *f, int *r)
{
    if (*f ==-1)
        printf(" Queue is empty\n\n");
    else
    {
        printf("%d is deleted\n", q[*f]);
        if (*f==*r)
            *f=*r=-1;
        else
            *f=(*f+1)%max;
    }
}

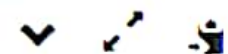
void display (int q[], int *f, int *r)
{
    if(*f==-1)
        printf("Queue is empty\n\n");
    else
    {
        for(int i=*f;;i++)
        {
            i=i%max;
            printf("%d ", q[i]);
            if (*r==i)
                break;
        }
        printf("\n");
    }
}

```

```

49 }
50
51
52 int main()
53 {
54     int choice, f=-1, r=-1, q[max];
55     do
56     {
57
58         printf(" 1: Insert \n 2:Delete \n 3: Display\n 4: Exit\n");
59         printf("Enter your choice\n");
60         scanf("%d", &choice);
61         switch(choice)
62         {
63             case 1: enqueue(q, &f, &r);
64                 break;
65             case 2: dequeue(q, &f, &r);
66                 break;
67             case 3: display( q, &f, &r);
68                 break;
69             case 4:
70                 break;
71             default: printf("INVALID CHOICE\n");
72         }
73     }while(choice!=4);
74 }

```



1: Insert  
2: Delete  
3: Display  
4: Exit

Enter your choice

1

Enter the element:

4

1: Insert  
2: Delete  
3: Display  
4: Exit

Enter your choice

1

Enter the element:

6

1: Insert  
2: Delete  
3: Display  
4: Exit

Enter your choice

1

Enter the element:

9

1: Insert  
2: Delete  
3: Display  
4: Exit

Enter your choice

3

4 6 8

1: Insert  
2: Delete  
3: Display  
4: Exit

Enter your choice

```
6
1: Insert
2:Delete
3: Display
4: Exit
Enter your choice
1
Enter the element:
8
1: Insert
2:Delete
3: Display
4: Exit
Enter your choice
3
4 6 8
1: Insert
2:Delete
3: Display
4: Exit
Enter your choice
2
4 is deleted
1: Insert
2:Delete
3: Display
4: Exit
Enter your choice
3
6 8
1: Insert
2:Delete
3: Display
4: Exit
Enter your choice
```