```c
#include <stdio.h>
#include<stdlib.h>
#define N 5
int queue[N];
int front=-1;
int rear=-1;
void enqueue(int x)
{
    if(front==-1 && rear ==-1)
    {
        front=rear=0;
        queue[rear]=x;
    }
    else if((rear+1)%N==front)
    {
        printf("Queue is Full \n");
    }
    else
    {
        rear=((rear+1)%N);
        queue[rear]=x;
    }
}
void dequeue()
{
    if(front ==-1 &&rear==-1)
    {
        printf("Queue is empty \n");
    }
    else if(front==rear)
    {
        front=rear=-1;

    }
    else
    {
        front=((front+1)%N);
    }
}
```

```
40: void display()
41: {
42:     if(front==-1 && rear ==-1)
43:     {
44:         printf("Queue is empty \n");
45:     }
46:     else
47:     {
48:         int i=front;
49:         while(i!=rear)
50:         {
51:             printf("%d \t",queue[i]);
52:             i=(i+1)%N;
53:
54:         }
55:         printf("%d",queue[rear]);
56:         printf("\n");
57:     }
58: }
59: void main()
60: {
61:    enqueue(1);
62:    enqueue(2);
63:    enqueue(3);
64:    enqueue(4);
65:    enqueue(5);
66:    display();
67:    dequeue();
68:    display();
69:    enqueue(1);
70:    display();
71:
72:
73: }
74:
```