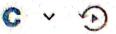
```
main.c
      #include <stdio.h>
 1
      #include <stdlib.h>
 2
      #define MAX 3
 3
 4
 5
      int front=-1;
      int rear=-1;
 6
 7
      int queue[MAX];
 8
 9
      void Enque(int);
10
      int Deque();
11
      void display();
12
      int main(int argc, char **argv)
13
14
        int option;
15
          int item;
16
17
          do{
              printf("Circular Queue\n");
18
              printf("\n 1. Insert to Queue (EnQueue)");
19
              printf("\n 2. delete from the Queue (DeQueue)");
20
              printf("\n 3. Display the content ");
21
              printf("\n 4. Exit\n");
22
              printf("Enter the option :");
23
              scanf("%d",&option);
24
25
              switch(option)
26
              {
                            printf("Enter the element\n");
27
                   case 1:
28
                            scanf("%d",&item);
29
                            Enque(item);
30
                            break;
31
                   case 2: item=Deque();
32
                           if(item==-1)
```

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Stop 
eccableV...
 main.c
                             else
  34
                             printf("Removed element from the queue %d\n",item)
  35
                             break:
  36
                    case 3: display();
  37
                             break;
  38
                    case 4: exit(0);
  39
  40
            } while (option!=4);
  41
         return 0;
  42
 43
  44
       void Enque(int ele)
  45
 46
           if(((front == 0 && rear == MAX - 1))|| (front == rear + 1) )
 47
 48
               printf("Queue is full\n");return;
 49
 50
 51
 52
           else
 53
             rear=(rear+1)%MAX;
 54
             queue[rear]=ele;
 55
             if(front ==-1)
 56
                  front=0;
 57
 58
 59
                                              I
 60
 61
```

int Deque()

int item;

62 63 64



```
it((tront == -1)&&(rear == -1))
       return(-1);
   else
       item=queue[front];
       if(front==rear)
            front=-1;
            rear=-1;
       else
           front=(front+1)%MAX;
       return item;
void display()
 if (front == -1 && rear == -1)
 {
   printf("Queue is empty\n");
                                     1
 }
 else
   printf("Queue contents : \n");
   if (front <= rear)
```

```
85
 86
 87
      void display()
 88
 89
         if (front == -1 && rear == -1)
 90
         {
 91
           printf("Queue is empty\n");
 92
 93
         else
 94
 95
           printf("Queue contents : \n");
 96
           if (front <= rear)</pre>
 97
 98
             for (int i = front; i <= rear; i++)</pre>
 99
100
               printf("%d\t", queue[i]);
101
102
103
104
           else
105
             for (int i = front; i <= MAX-1; i++)</pre>
106
             {
107
               printf("%d\t", queue[i]);
108
109
110
             for (int i = 0; i <= rear; i++)
111
               printf("%d\t", queue[i]);
112
113
114
115
116
```