

```
#include <stdio.h>
#include <stdlib.h>
#define MAX 5
int front = 0;
int rear = -1;
int queue
int queue[MAX];
void Enque(int);
int Deque();
void display();
int main(int argc, char argv)
{
    int option;
    int item;
    do {
        printf("\n 1. Insert to Queue (EnQueue)");
        printf("\n 2. Delete from Queue (DeQueue)");
        printf("\n 3. Display the content");
        printf("\n 4. Exit\n");
        printf("Enter the option: ");
        scanf("%d", &option);
        switch(option)
        {
            case 1: printf("Enter the elements\n");
                    scanf("%d", &item);
                    Enque(item);
                    break;
            case 2: item = Deque();
                    if (item == -1)
                        printf("Queue is empty\n");
                    else
```

```
printf("Removed element from the queue  
%d", item);
```

```
break;
```

```
case 3: display();
```

```
break;
```

```
case 4: exit(0);
```

```
}
```

```
} while(option != 4);
```

```
return 0;
```

```
]
```

```
void Enqueue(int ele)
```

```
{
```

```
if (rear == MAX-1)
```

```
printf("Queue is full \n");
```

```
else
```

```
{
```

```
rear++;
```

```
queue[rear] = ele;
```

```
}
```

```
}
```

```
int Dequeue()
```

```
{
```

```
int item;
```

```
if (front == -1)
```

```
return -1;
```

```
else {
```

```
item = queue[front];
```

```
front++;
```

```
if (front > rear)
```

```
{
```

```
    front = -1;
    rear = -1;
}
return item;
}
}

void display()
{
    int i;
    if (front == -1)
        printf("Queue is empty\n");
    else {
        printf("Queue contents : \n");
        for (i = front; i <= rear; i++)
            printf("%d ", queue[i]);
    }
}
```