

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 4
Front element is: 4
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 5
PS C:\Users\student\Desktop\1BF24CS292> █
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 3
Queue elements: 3 4 5
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 2
Deleted element: 3
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 3
Queue elements: 4 5
```

WAP to simulate the working of a queue of integers using an array. Provide the following operations: Insert, Delete, Display. The program should print appropriate messages for queue.

```
#define N 5
int queue[N]
int front = -1;
int rear = -1;

enqueue → if rear = N-1 print "Queue overflow"
else if front == -1 && rear == -1
    front = rear = 0;
    queue[rear] = x;
else
    rear++;
    queue[rear] = x
```

```
dequeue → if front == -1 && rear == -1
    printf("Empty")
else if front == rear
    printf("front = rear = -1")
else
    printf("Deleted element")
    front++;
```

```
display else {
    for (i = front; i <= rear; i++)
        printf("%d", queue[i]);
}
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 1
Enter the value to enqueue: 3
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 1
Enter the value to enqueue: 4
```

```
Queue Menu
1. Enqueue
2. Dequeue
3. Display
4. Peek
5. Exit
Enter your choice: 1
Enter the value to enqueue: 5
```