

Visual Studio Code interface showing a C++ project named CMakeProject2. The main.cpp file is open, displaying a queue implementation. The code includes headers, defines constants, and implements a queue class with methods like enqueue, dequeue, and isFull.

```
1 // This code was taken from https://www.techiedelight.com/queue-implementation-cpp/
2 // The code has been modified from the original to provide opportunities to learn
3 #include <iostream>
4 #include <stdlib.h>
5 using namespace std;
6 // Define default capacity of the queue
7 #define SIZE 10
8 // Class for queue
9 class queue
10 {
11     int* arr; // array to store queue elements
12     int capacity; // maximum capacity of the queue
13     int front; // front points to front element in the queue (if any)
14     int rear; // rear points to last element in the queue
15     int count; // current size of the queue
16 public:
17     queue(int size = SIZE); // constructor
18     ~queue(); // destructor
19     void dequeue();
20     void enqueue(int x);
21     int peek();
22     int size();
23     bool isEmpty();
24     bool isFull();
25 };
26 // Constructor to initialize queue
27 queue::queue(int size)
28 {
29     arr = new int[size];
30     capacity = size;
31     front = 0;
32     rear = -1;
33     count = 0;
34 }
35 // Destructor to free memory allocated to the queue
36 queue::~queue()
37 {
38     delete arr; // you are not required to test this function;
39     // however, are there issues with it?
40 }
41 // Utility function to remove front element from the queue
42 void queue::dequeue()
43 {
44     // check for queue underflow
45     if (isEmpty())
46     {
47         cout << "UnderFlow\nProgram Terminated\n";
48         return;
49     }
50     cout << "Removing " << arr[front] << '\n';
51     front = (front + 1) % capacity;
52     count--;
53 }
54 // Utility function to add an item to the queue
55 void queue::enqueue(int item)
56 {
57     // check for queue overflow
58     if (isFull())
59     {
60         cout << "Overflow\nProgram Terminated\n";
61         return;
62     }
63     cout << "Inserting " << item << '\n';
64     rear = (rear + 1) % capacity;
65     arr[rear] = item;
66     count++;
67 }
```

The Error List shows four errors:

Code	Description	Project	File	Line	Details
E0963	return type may not be specified on a constructor	CMakeProject2.exe - x64...	main.cpp	9	
E2140	expression must have integral or unscoped enum type	CMakeProject2.exe - x64...	main.cpp	50	
E0020	identifier "isFull" is undefined	CMakeProject2.exe - x64...	main.cpp	58	
E0137	expression must be a modifiable lvalue	CMakeProject2.exe - x64...	main.cpp	91	

The Output window shows the output of the program, which is currently empty.