

Topic: Height of the Tree

In this recitation, we will implement code for **the height of the tree**

We will use a **C++ queue** to implement the code:

<http://www.cplusplus.com/reference/queue/queue/>

OR

Refer the code for level order traversal in Canvas

Here is the algorithm for getting the height:

Define a C++ queue.

Push root into the queue.

height = 0

Infinite Loop i.e while(1)

```
{  nodeCount = size of queue
```

```
    // If the number of nodes at this level is 0, return height
```

```
    if nodeCount is 0
```

```
        return Height;
```

```
    else
```

```
    {  increase Height
```

```
        // Remove nodes of this level and add nodes of
```

```
        // next level
```

```
    while (nodeCount > 0)
```

```
    {
```

```
        pop node from front . This is two step 1) to peek using myq.front() 2) to pop using myq.pop
```

```
        push it's children to queue only if they are not NULL
```

```
        decrease nodeCount
```

```
        // At this point, queue has nodes of next level
```

```
    }
```

```
}
```

```
}
```

You are provided with the code that implements the tree class. You need to complete the function height and call it from the main to print the height.