

CS 2412 Data Structures
Fall, 2007

Lab 3:

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Time and location: Mon 9:30 - 10:30 a.m., AT 3001

Web: <http://peace.lakeheadu.ca/cs2412.html>

This lab will continue the work of lab 2. You need to implement queue by linked storage (linked queue).

- Write a header file `linkqueue.h`. Don't set a count in the definition of `queue`.
- Using dynamic memory allocation to implement a queue (linked queue). Some functions are provided by the text book, but you need to write the source code of `QueueEmpty`, `ClearQueue`, `MakeNode`, `Error` etc. Write a program (or programs) to test your functions.
- Write a function `QueueSize` which returns the number of nodes in the queue.
- Set the `QueueEntry` to be `char`. Write a program to create a queue first, then append "Lakehead University" into the queue. After that using `QueueSize` to count the size of the queue. Finally, using `ServeNode` to output the characters of the queue and check whether the size of queue is 0 after that.