

**Discipline of Computing and IT  
University of Newcastle**

**SENG1120/6120 – Semester 1, 2018  
Lab 6 (Week 6)**

This laboratory continues the tasks from Lab 5 and aims at creating a queue class.

1. Create a `Queue` that has a linked list as the underlying data structure. The class should provide the methods:

```
void enqueue(value_type)
value_type dequeue()
value_type& front()
int size()
```

and constructors/destructors. Private member variables should include:

```
LinkedList data, and
int used
```

2. Write a program that demonstrates the features of your `Queue` class by storing integers and strings in two different instances of `Queue`.
3. Convert your `Queue` class into a class template. You will need to convert `LinkedList` and `Node` to achieve that, as well.

**Good Luck!**