

COSC 201 – Lab #6

Priority, priority, who has priority?

Purpose: to practice implementing Java Queues

Tasks:

- 1.) Open Eclipse and start a new Java Project called Priority Project
- 2.) For this lab, you are tasked with creating a priority queue. This queue handles pairs of information where the first piece of data is the name of the element and the second is the priority of that element. The priority level is between 1 and 5 inclusive, where 1 is low and 5 is high. You should create a class that will mimic the functionality of a priority queue. You should have the following methods:

```
void enqueue(String name, int priority)
String dequeue()
boolean isEmpty()
String front()
```

Dequeue and front return the first element in the queue based on priority, then by order of addition. Dequeue also removes the element from the queue.

Hint: there are two ways of doing this: creating a new class from scratch that extends comparable, or using multiple Queues and building the functionality around them.

- 3.) Create a main that will add the following data to the queue, then print out the queue in order:

```
Columbus, 3
New York, 5
Baltimore, 4
Greencastle, 1
Washington, 5
Atlanta, 4
Seneca, 1
Frederick, 3
Columbia, 3
Dallas, 4
Los Angeles, 5
```

- 4.) Turn in your code via the Digital Dropbox in Blackboard.