**Computer Science 2**   **Lab # 13**



**Dr. Hanh Pham**

**Student Last Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student First Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CS2 Section # \_\_\_\_**

**Due:** Problem A by the **end of the lab** and Problems B by the end of **Saturday** of the same week.

**TOPIC: Queues and Priority Queues**

There is no problem A for this lab. Below is the problem B (i.e. everything is due on Saturday).

1)Finalize the BlueJ project on Queues and Priority Queues we did at the classes which should have the screen output (random numbers) as shown below. Fill-in the codes in the two java files “Node.java” and “QueuesAnd PriorityQueues.java” in the subfolder “Lab13-StudentCodes” in the lab folder. Create a BlueJ project which contains them. There are more descriptions in the code comments. Test and debug.

2)Zip the whole folder then submit it by Saturday of the same week at our course website: <http://cs.newpaltz.edu/~phamh/ac2/sub/>

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| 1. REGULAR QUEUE:  =================  Enter the size of queue: 5  Random Queue of 5 nodes:  Inserted: 22  Inserted: 35  Inserted: 70  Inserted: 50  Inserted: 53  Queue contents (Head to Tail):  53  50  70  35  22  ENQUEUE: new node has been added to the TAIL !  Queue contents (Head to Tail):  53  50  70  35  22  1  PeekQUEUE: 53  DEQUEUE: Head has been removed !  Queue contents (Head to Tail):  50  70  35  22  1  2. PRIORITY QUEUE:  =================  Enter the size of the Priority Queue: 5  Random Priority Queue of 5 nodes:  Inserted: 13  Inserted: 66  ENQUEUE: new node has been added to the QUEUE !  Inserted: 42  ENQUEUE: new node has been added to the QUEUE !  Inserted: 19  ENQUEUE: new node has been added to the QUEUE !  Inserted: 58  Queue contents (Head to Tail):  13  19  42  58  66  ENQUEUE: new node has been added to the QUEUE !  Queue contents (Head to Tail):  13  19  42  58  66  90  PeekQUEUE: 13  DEQUEUE: Head has been removed !  Queue contents (Head to Tail):  19  42  58  66  90 |