

CS 200

Lab 5

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Important Guidelines:

- 1- There will be a deduction of 10% for every lab submitted which is submitted late from now on.
- 2- Talking to each other is strictly prohibited. If you do so, your lab will be cancelled immediately.
- 3- Any case of cheating will be immediately reported to DC.
- 4- TAs will not help you guys in any way for the first two tasks, except for clarifying the concepts. You have to figure them out for yourself.

Problem 1: (50 Marks)

Implement a class which has the properties of a queue using arrays. The queue is going to hold a max of n integers (which will be a constructor argument). When no size is specified assume a capacity of 10 elements. The queue will have the following operations:

- 1- enqueue() this will enqueue an element.
- 2- dequeue() this will remove an element from the queue and return it.
- 3- min() this will give the minimum element in the queue.

Note: Above are not the correct prototypes for the function, figure them out for yourself. And when the capacity of queue is full, print an error. On top of this, you have to write the testing code for this class too in main function.

Problem 3: (50 Marks)

You have been given a pointer to an array. Your job is to reverse it. But you cannot use indexing. Instead you have to do it using pointer arithmetic. In other words, you are only allowed to perform the following two operations on the pointer: ++, --.