

Queue Assignment

Write a C++ template class that allows users to declare and use the queue ADT.

The queue ADT can be abstractly represented as a string to which new entries go at the back and entries are removed from the front. Access to the queue can occur only at the back and the front. The queue is often called FIFO, standing for First In First Out.

Operations:

`void enqueue(T)`: puts an entry at the back of the queue. Given queue `r d h k`, the command `enqueue(c)` results in `r d h k c`.

`T dequeue()`: removes an entry from the front of the queue. Given queue `r d h k`, the command `dequeue()` results in `d h k`.

`int length()`: finds the length of the queue. Given queue `r e h k`, the command `length()` results in 4.

You can choose to implement the queue using pointers or using your list ADT.

You can do both for extra credit.