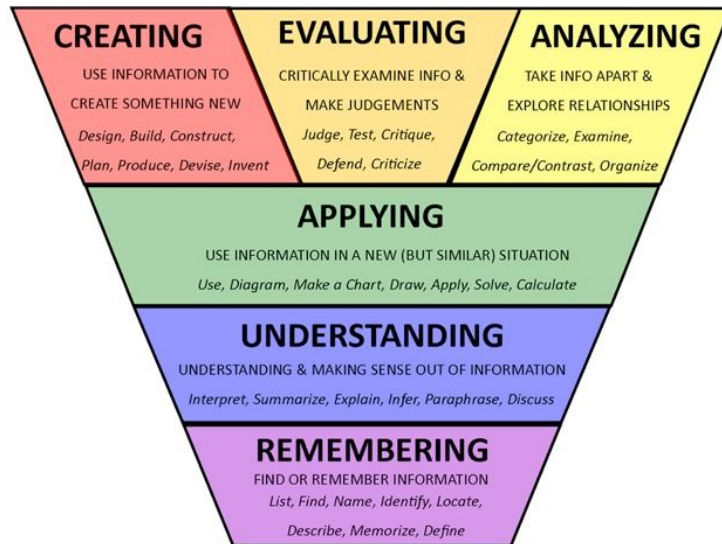


I'm Ada! On 1/21 I'll be taking over 201 for a day. We'll be studying **queues**. To prepare, please read this microsyllabus, then do the reading with the goal of answering the guidance questions below.

Bloom's Taxonomy

Bloom's Taxonomy is a way to organize your thinking about learning new skills. Learning is far more than rote memorization. However, memorization plays a key role, since fluency with terminology and definitions is necessary to reason rigorously about challenging ideas. Example: doing algebra is way easier and faster if you've got your multiplication tables down pat. In Bloom's Taxonomy, the "rote" learning goals (memorizing, defining, summarizing) support the higher level goals of applying, analyzing, evaluating, and creating.

Lecturing to move facts into your brain can be an inefficient use of your time and mine. That's why I think readings can be a good way to accomplish necessary memorization, so our class time can be spent asking questions, discussing challenging ideas, and working hands on. That's why you'll notice that my reading guidance below covers only the first two layers of the hierarchy.



†Image credit: <https://lifelonglearning.wisc.edu/resources/>

Reading Guidance Questions

As you do the reading (below), your goal is to answer the following questions:

- **Define** the acronym FIFO (what does it stand for?).
- **Explain** briefly what it means that Queues are FIFO data structures.
- **Give an example** of the use of a queue which illustrates FIFO ordering.
- **List** the two methods of a Queue's interface (aside from `size()` and `isEmpty()`)
- **List** two data structures which are commonly used to implement Queues.
- **Name** a couple of examples of real-life applications of Queues in computer systems.

Reading (~10-15 minutes): <https://medium.com/basecs/to-queue-or-not-to-queue-2653bcde5b04>

Use the reading as a tool to reach the point where you can either (a) *answer* or (b) *ask intelligent questions about* the guidance questions above. If you find you can answer a question but you don't understand your answer, awesome! That's the perfect basis for deeper exploration. Jot down a question to ask in class and move on to the next question.