Queues in other languages

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- If you, your friend, and your roommate all send information to the printer it will print out the information it received first. In operating systems queues are often used for controlling access to shared system resources such as printers, files, communication lines, disks and tapes. They are also very commonly used in multi-threading and concurrency situations to keep track of what tasks are waiting to be performed and making sure we take them in that order. Now queues work differently depending on which language you use them in. We could implement them with a linked list or a dynamic array. In C# we have a queue class where we can enqueue and dequeue. In Python we have a queue class where we use the functions put and get instead of enqueue and dequeue. Python is targeted for working with threading so you'll see a lot of terminology talking about thread synchronization. This is the same with Ruby which uses queues for synchronizing communication across threads. If you want standard queue functionality you can use the standard Ruby array class, that is a dynamic array, and use the method push to add to the end, and shift to remove and return the first element. Shift also shifts the rest of the elements down by one so we have an acting queue. In JavaScript we can also use its dynamic array with its push and shift methods. In C++ there's a queue container in the standard template library where we can use the methods push\_back and pop\_front. No matter language you are using you should be able to find a library with similar functionality to use, or implement them yourself.