CSCC46 Tutorial 1

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Suppose we wanted to represent facebook as a graph, then our `nodes` are simply the people, and `edges` are whether people are friends. During this translation, we end up losing things like quality of friendship, length of friendship... overall we lose detail.

Bridge Edges

Suppose we have a connected graph, a `bridge edge` is an edge where upon deleting, the graph becomes disconnected.

OUT and IN

OUT(X): all nodes that can be reached if we start from `node` X, note the node itself is always included.
IN(X): all nodes that can reach `node` X, note that the node itself is always included here too.
Lastly, a strongly connected set that includes `D` is simply $IN(D) \cap OUT(D)$.