Lab 2 - 02 Feb 2025 (due date extension granted)

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Crucial to my understanding of this paper was recognizing that it was originally written in 1968. I, a modern programmer using modern programming languages, wouldn't think to use explicit `go to` statements because modern flow control structures largely manage the state of a program on my behalf - I merely define what states are significant.

Dijkstra's example of tracking the `n` number of people in the room was a good example of why the use of 'go to' statements for tracking the progress of a process is not ideal. Firstly, the use of `go to` in such a process is tedious and inefficient. Manually defining where and when within the processes to update the value of `n` dampens the value of using a machine for this task. (Such a procedure is more akin to notching a tally on physical notepad than utilizing a sophisticated piece of technology.) This is the point he was making in his plea to "shorten the conceptual gap between the static program and the dynamic process...." A machine given a proper flow-control mechanism will automatically track 'n' more efficiently and very likely with less error than a series of manual 'go to' statements. If a machine is to be used, capitalize on its capabilities. Secondly, use of 'go to' statements for management of minutia (such as the update of 'n - 1' to 'n') draws attention away from the utility of a program and onto its code-level implementation (the details of which hold little meaning). Heavy use of `go to` statements creates a "bureaucracy" in manipulating the value of `n` that detracts from core objective of the program. Thirdly, a "rogue" 'go to' statement could be injected to divert the processing locus to a point irrelevant to the current subprocess. (Historically speaking, this is not only a waste of time, but of money too as users had to pay a fee for access to computers of the time.) At best, this is a distraction from the objective of the process. At worst, it creates a nightmare situation for debugging.