# 08/25/17

* Design is important.
* Software­­ ­engineering is not an exact discipline.
* Software design cycles:
  + Customer has a problem and thinks they know the solution (they’re almost always wrong)
  + Do specifications then design
  + Implement/install.
  + Repeat as specifications change.
* Systems analyst: finds the need for the user and the actual problem that the user is having. They also need to integrate it with the company.
* Systems designer: takes what the analyst says and designs the specs of the project to do the job.
* Heap sort if you don’t know what the specs of the sort are.

# 9/6/17

* Minimize human cost
* Reliability should be optimized.
  + Lower the mean-time-between-failure
  + Lower the mean-time-to-repair
* A specification is:
  + What the problem is and what we see the solution should be
  + A set of functional requirements that describe the precise inputs, outputs, algorithms, and constraints.