* Individual quizzes and assignments from lecture material
* Group writing assignments and poster or video presentation
* Two exams: midterm and final
* What is a software requirement or specification?
  + A requirement is a capability that the system must deliver (MSR – mastering system requirements)
  + We don’t ask what it shouldn’t be doing (or at least not usually), we ask what it *should* be doing
  + Example:
    - Customer says “I want a rock”
    - Customer says they want the rock to be small – increased the level of information that has been provided to us
    - Customer says they want a small, smooth rock – continuing to get better in the process
    - Customer says they want a small, smooth, blue rock – they’re getting smarter
      * i.e. you continue to give customer examples of the bare bones of what they’re asking for and wait for them to refine the request
    - What did the customer really want?
      * A small blue marble
      * Why didn’t they just say that?
      * Couldn’t figure out how to ask for what they wanted
* Why are software requirements hard?
  + Software is intangible, complex, abstract, ‘soft’, etc.
  + About half of software systems are over budget and behind schedule (yikes)
  + 25%-33% of software projects are canceled
* Other stakeholders
  + The customer may not be the end user
  + Other non-users might have a stake in the project
* The goal of software dev
  + Develop *quality* software on *time* and *budget* that meets *customers’ needs*
  + What is quality?
    - Three causes of ‘challenges’ to software projects:
      * 13% due to lack of user input
      * 12% due to incomplete requirements
      * 12% due to changing requirements
    - As of 2013…
      * 36% success rate in chaos resolution
      * 48% challenged rate in chaos resolution
      * 16% fail rate in chaos resolution
  + Who is/are the customers?
  + How to know their needs?
* Cost of requirements for changes/errors
  + 1x for errors found in analysis
  + 10x for errors found in coding
  + 100x for errors found in testing