Lecture Outline for Gathering Requirements

1. What are requirements?
   1. Define a requirement
   2. Types of requirements
      1. Quality
      2. Functional
   3. Priority by category
      1. Essential
      2. Preferential
      3. Optional
2. Show an practical example of requirements being made
   1. List persons involved in requirements agreement
      1. The customer
      2. The developer
      3. The end user
3. Explain the ways a developer can approach and work within requirements
   1. Working within constraints
   2. Types of constraints
      1. Design
      2. Practical
4. Common mistakes and errors made
   1. Communication errors
      1. Lack of requirements given
      2. Vague or conflicting requirements
      3. Not enough communications b/w parties
   2. User errors
      1. Lack of user involvement
      2. Lack of executive support
      3. General incompetence
   3. Obsolescence errors
      1. Changing requirements too drastically
      2. No longer needing certain requirements at all
5. How to avoid errors
   1. Communicate effectively and regularly
   2. Consistently inform customer of changes
   3. Make sure both parties are sufficiently involved in process
   4. Plan requirements early and definitively
6. Modeling Requirements
   1. Entity Relationship Diagram
   2. Universal Modeling Language
7. Prototyping Requirements
   1. Build a prototype
   2. Tweak prototype as customer sees fit
8. Documentation
   1. Document Project’s
      1. Purpose
      2. Scope
      3. Objectives/Goals
   2. Document how the project functions
9. Validation and Verification
   1. Validate that requirements are met
   2. Review the projects purpose and goals
   3. Outline a methodology to test the system as it grows