Requirements Engineering (RE)

What is RE?

All activities involved in
- discovering
- documenting
- Maintaining

A set of requirements for a software system

A bridge between the software world and the real world

Requirements include system needs and system constraints

Types of requirements
1. User requirements
   a. High level things
   b. A statement of services the system provides the user
2. System requirements
   a. "More" low level
   b. More structured document that covers functions services and operational constraints
3. Requirement Engineering Activities
   a. Requirements Elicitation (The process by which you find out what the requirements are going to be)
   b. Requirements Analysis and documentation
   c. Requirements Validation
   d. Requirements Management

Requirements Elicitation
1. Interviews
   a. What do you want? How do you currently do things? What are the problems you have doing things this way?
2. Focus Groups
3. Document Analysis
4. Brainstorming
5. Observations
6. Interface Analysis
7. Process Modeling
8. Prototyping
   a. Feedback on a prototype/mockup/wireframe
9. Workshops
   a. Gather key stakeholders and record mock uses to test effectiveness

10. Surveys
   a. Lots of data from lots of people
   b. Very impersonal
   c. Not honest

Connecting Agile Principles of use case documents

Developers see a cake
- GUI CODE
- SERVICE LOGIC
- DB Access
- DB + App Servers
- Operation System
- Hardware

Users see a pie
- Balance Accounts
- Pay Bills
- Create Invoice