Project Proposal & Specification

-- what we expect
Proposal: high level picture

- What application you want to build?
  - Who are the users
    - Different groups of users
  - What actions users can perform
  - Basic Functionalities

- Be aware
  - Client-side vs. server-side
  - Key: non-trivial business logic
Next step: specification

- Why specification? Functionality is only a black box
  - same functionality can correspond to different business logic and interfaces
  - sometimes, the logic is not straightforward
- You need a concrete specification to convince your customers (and for your later implementation)
Example 1: Login

☐ Functionality

■ Input username, password
■ verify user info
  ☐ If success, let the user in
  ☐ Otherwise, error messages and re-input info

☐ What does this process actually look like?
Login 2
Login workflow

- Welcome.jsp
  - "Sign in"
  - "Log off"
  - Success
  - Fail

- Logon.jsp
  - "Sign in"
  - Success
  - Fail

- Welcome.jsp
  - "Sign off"
  - success
  - fail
  - Login.jsp (with error messages)
  - success

- MainPage.jsp
Example 2: application submission

- Simple solution: one giant form and a “submit” button. However,
  - Usage convenience, information delivery, data verification, etc.

- Alternatives:
Specification

- Overall, specification is about two things
  - What web pages look like?
  - How are they connected – workflow
In summary

- When we have the first meeting, we expect
  - High level picture
  - **business logic (workflow)**
    - Ideal: a demo of faked static web pages
    - Or some figures clearly states the flow
Project grading criteria

- Complexity of business logic (workload)
  - if the logic is too simple …..

- MVC framework
  - isolate business logic from pages
  - Analogy: OOP vs Procedure Programming

- Implementation Issues
  - Correctness, e.g. transaction requirement
  - Performance
    - appropriate usage of session and request
    - Connection pooling
  - Security
    - Page Protection