

Lecture Activity - Building Conceptual Models

Total time: ~20 minutes

Description: Imagine: you've been hired to (eventually) build a new user web interface for reserving rooms in the UMass CS department. In this system, users must be able to:

- log on with their department ID
- see what rooms exist (list or map view)
- see and search room availability
- reserve a room (if it is available), and receive an email confirmation sent to their department ID
- hold one future room reservation at a time
- see their own future reservation, if any.

If a room has already been reserved by someone else, students should not be able to find out who has reserved it, but users with tech staff credentials should be able to find this information.

Aspects a conceptual model: Brainstorm on each of the aspects a conceptual model:

- any central design **metaphors** and analogies,
 - e.g. the “desktop metaphor”
- **concepts** – objects, actions you can do to them; user roles; attributes of both.
 - e.g., in a desktop metaphor: files and folders; both can be opened, have names;
- **relationships** among concepts.
 - e.g., files are contained in folders
- **mappings** from concepts to the user experience envisioned; e.g., the users can browse files, and mark favorites
- **terminology** that will be used (consistently) to tie it all together
- **interaction** types; how will they interact with it?
 - e.g. instructing, manipulating, conversing, exploring, something else?
 - **interface** types;
e.g., mobile, GUI, touch, tangible, haptic, desktop, command line, etc.

Activity steps:

- 1) What COULD a conceptual model for a room-booking system contain?
Brainstorm on each dimension of conceptual models that we've discussed
- 2) Create a visual representation(s) of a conceptual model based on your brainstorming
- 3) If time allows: is there a different conceptual model that you could create based on your brainstorming.