

CSE340A, Winter 2020

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Notetaker: jial8@uw.edu

Lecturer: Jennifer Mankoff

Implementation of Undo

- Review of Mental Models:
 - *gulf of execution* = user thinks function exists (person pushes pull door)
 - *gulf of evaluation* = user doesn't know function exists (that you must push a button to open door)
 - *Full Model* = encompasses everything that can be possibly used
 - Note: lecturer repeated the same exercises as the last lecture...
- What is *ActionPerformed*?
 - Higher level input (Command or Action object)
 - UI can "listen" for these events
 - `doAction()` → needs to be able to execute some action
 - `undoAction()` → must be able to undo
 - Undo HW has `AbstractAction` and `AbstractReversibleAction`
 - Need to implement `ChangeColorAction`... etc
 - Store undo and redo actions in a *Stack*
 - Have maximum stack size
 - Clear the redo stack if user takes some action
- How to best implement undo?
 - *Direct Code* → each action object has custom code
 - *Change Records* → keep record of old values for everything changed by application, then put all values in undo
 - Takes more space
 - More general
 - *Cool ideas: make a menu showing user all of the actions they have taken and are undoable, users can skip multiple undos, delete an action from the middle, reorder actions...* etc

Goals for HW5: *change Thickness*, add a floating action button, implement color picker to menu again, make modifications accessible (not including colorpicker), heuristic evaluations, *add a NEW accessible feature to app*