

CMSI 370

INTERACTION DESIGN

Fall 2009

Assignment 1119

Our direct manipulation unit breaks up into a pair of cumulative assignments. This is Part 1. To (presumably) make things easier to do, we are partnering you up into teams of two or three.

Not for Submission

By November 12

1. Read Chapter 6 from Shneiderman/Plaisant.
2. Read Chapter 4 from Norman.
3. With your partner, review any code that you have from previous classes to see what might be a good fit for a direct manipulation user interface “refactor.”

For Submission

With your assigned partner(s), design a direct manipulation Swing or DHTML user interface for a program that was written in a previous class (185, 186, 281, etc.). Use the direct manipulation information and concepts from class and the readings, as well as any relevant interaction design metrics, guidelines, principles, and theories from before, to inform the design decisions that you make.

Most likely, your original program was written in the command line interaction style, taking text input and producing text output. While designing the user interface, anticipate possible implementation issues, particularly how your prior code can best be adapted via the MVC pattern to keep the original source as intact as possible. If you're doing DHTML, you'll need to port your code to JavaScript as well.

You may use other interaction styles (menus/forms/dialogs, commands) as part of your overall user interface, but make sure that the primary elements use direct manipulation.

Design Document

Turn in a short LaTeX design document that presents the direct manipulation user interface that you have designed. Include at least the following sections:

- A description of the original program — what it did, and how the user interacted with it

- A description of the direct manipulation user interface, stating any guidelines, principles, theories, and direct manipulation concepts that influenced your decisions
- At least one screenshot or mockup of your design (yes, if you feel like coding something up right away, you may do that)

How to Turn It In

Commit the complete LaTeX source, including images, under one of your repositories as */homework/cmsi370/directmanipulation/doc* (your code will later reside above this directory).

Prior to working, you will want to choose a repository from which to work, and make sure that repository can be used by your partner(s). To do this, you need to run the *fs sa* command. Create the *directmanipulation* subdirectory first, then invoke the following (as the owner of the repository):

```
fs sa -dir ~/.cvs/homework/cmsi370/directmanipulation  
-acl username write
```

Note that this is two lines as printed, but it's actually a single command. Replace *username* with the Keck lab username of your partner(s).

In addition to the *directmanipulation* folder, you will need to grant *-acl username read* on the following enclosing folders:

```
~/.cvs  
~/.cvs/homework  
~/.cvs/cmsi370
```

Finally, you need to grant one more *-acl username write* to this folder:

```
~/.cvs/CVSROOT
```

If you don't feel very sure about running this command on your own, talk to me or Andrés.

Yes, we will finish the semester by taking a stab at implementing your design.