# The Experience Machine

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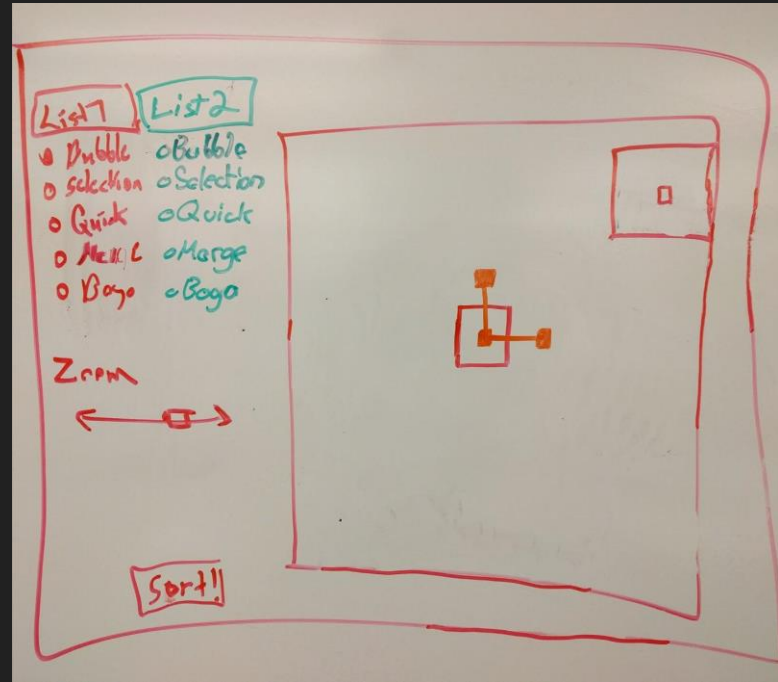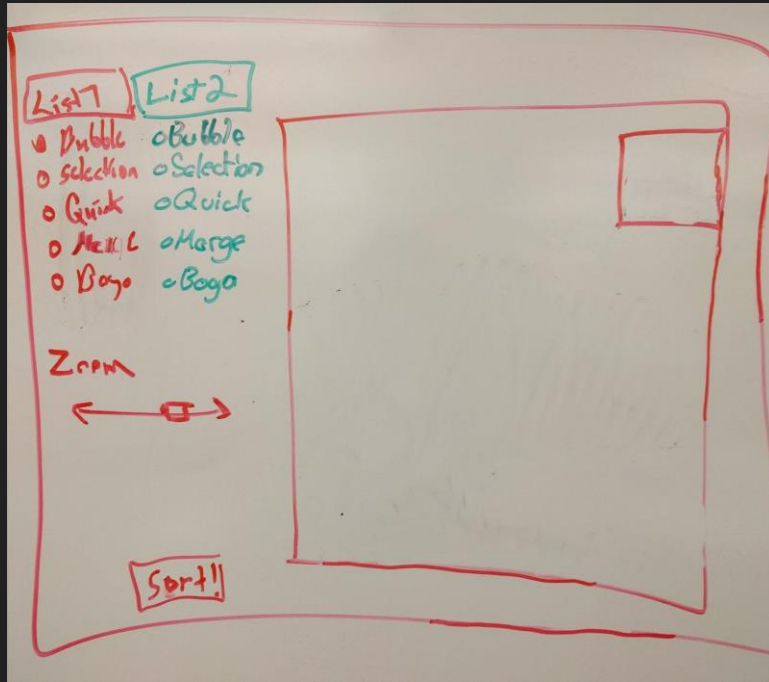Scott F.

# The Dynamic Sorting Visualizer

Haven't you ever wanted to draw and manipulate shapes, sort them by various attributes, and maybe even learn something about sorting algorithms too?
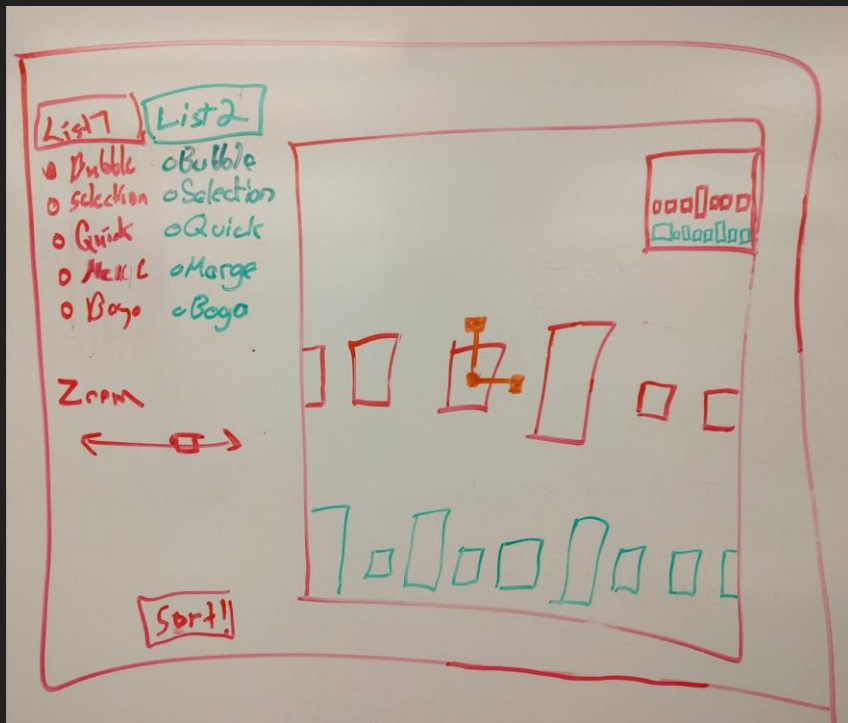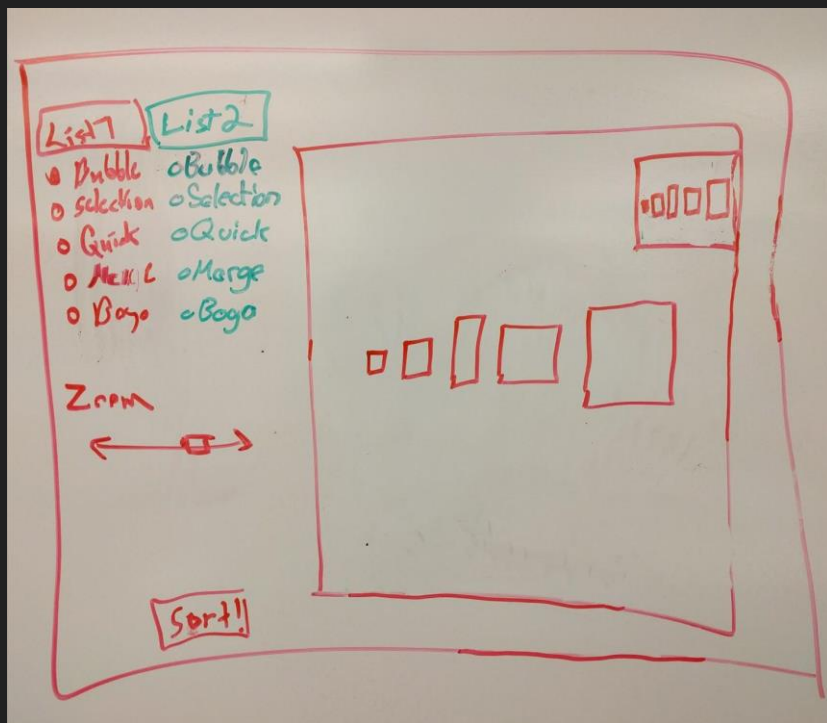
Well, fear not!

# Basic UI

# UI cont.

Add objects to either list

Then let the app sort them for you

# Technical Requirements

Purpose: To demonstrate the knowledge gained in CSS 450 by building an app to help others learn. By using the tools developed, such as sliders, and viewports to create a visual program that will show how various sorting algorithms work. The application will allow the user to create and manipulate shapes, and then with the click of a button, will move the shapes around the screen to be sorted using the selected algorithm.

a.      SceneNode hierarchy - The scene, (i.e.) list of lists, the lists themselves, and the sortable objects.

b.      The scene nodes will enable users to create new sortable objects as well as (potentially) new lists so that sorts can be compared side by side

# Technical Requirements cont.

c.      Selection: must be LMB clicking (E.g., area around the center of object is acceptable) - Clicking the center of an object for selection like in MP4, and clicking the screen to create like MP3

d.      Modify: Will be able to modify the currently selected shapes and the currently selected list

e.      Viewports: The viewport in the upper right will display the entire collection of sortable objects, the larger center viewport will enable the user to zoom and move the camera around to specific parts of the list

# Technical Requirements cont.

f.      Direct Manipulation - Selecting an object will produce a manipulator similar to MP5

g.      Texture Transform - Will use animated images to illustrate the movement of objects carried out during a sort

Questions?