Chemistry Learning In Progress

Prototype Plan

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1. Introduction

1.1 Overview

The C.L.I.P. prototype plan details what we will include in our prototype as a 'proof-of-concept' that the necessary features required by our client are attainable and will make it a useful application. However, most of the functionality will not be in the prototype. Instead we are opting for providing enough of the core functionality – the Play Area and Grid – to show the general idea of what our system will do in the end when it is complete. For those features not implemented, we will show much of the visual aspect of them.

1.2 Research

Java Programming Concepts
Java Applets
Java Swing
Grid and Play Area drag and drop interaction

2. Features

Play Area

It will consists of 3 components: the Card Listing, the Mini-map, and the Playback controls.

1. Card Listing
   - Shows a current of list of tiles that have not be used.
   - In the prototype we will use a hard-coded list of tiles that loads when the applet starts up.
   - Uses drag and drop feature to move tiles around in the list and to the Grid

2. Mini-map
   - Only has a sample image to indicate how the mini-map of the grid may look. This image will have a nice border to separate it from the rest of the play area components.

3. Playback controls
   - The buttons with their appropriate images for the playback controls will be displayed but no actual functionality implemented. Instead, the buttons will popup a dialog indicating what each of the buttons does.

The Grid

The size will be able as large as 10 cards wide by 10 cards high. This is based on our sample set. The sample set cards are 100 pixels by 100 pixels.

A user will be able to drag and drop tiles from the play area onto the grid and to the play area.

Load Tile Set – File Menu

This is our first option under the file menu. It will only load up a non-functional dialog box with a hard-coded list of tile sets.

Load Recording – File Menu

This is our second option under the file menu. It will load up an open file dialog box that has in the file type to browse for the **.set** type. This will be non-functional dialog.

Save Recording – File Menu

This is our last option under the file menu. It will load up a save file dialog box that has in the file type to save is the **.set** type.

Create a Set – Tools Menu

This is the first option under the tools menu. It will load up a dialog with 3 tabs: Rule Editor, Tile Editor, Pattern Editor.

The first two tabs will have the labels next to the appropriate text fields to take in input, but they will be non-functional.

Options – Tools Menu

This is the second option under the tools menu. It will load up a dialog for customizing the applet look and feel. This will not be functional.

How To – Help Menu

This is our first option under the help menu. It will have a link to the place on the applet's web page that has tutorials for help. No tutorials will be listed though until later.

About Us – Help Menu

This is our second option under the help menu. It will load up a dialog with information about the applet and the team.

Tile Arrangement Interaction

The Grid and Play Area will be functional in the sense of allowing for tiles to be dragged and drop between each other and arrange tiles into a pattern, but no recording of the movement will be done.