## Team Europa:

Nathan Longnecker, Yang Wang, Yumou Wang, Jian Xu

This document is our software's bible. It gives users instructions about how to use our CyberpoetrySlam.

#### 1. Initialization

The first time a user runs main/MainLauncher.java, then the program initializes the state for you. At the beginning, there are 100 words in the unprotected area and the word table. The program reads the words from the file "Dictionary/WordsAndTypes.csv"

# 2. Protect words (without overlapping)

Left click one word in the unprotected area, then drag the word from the unprotected area to the protected area.

## 3. Unprotect words

Left click one word in the protected area, then drag the word from the protected area to the unprotected area.

#### 4. Connect word

Protect at least two words to the protected area. Select one word and drag it close to another word from any direction so that both turn green, then the word will be connected to that word at that side (left/right/bottom/top). After that there is a poem or row in the protected area.

#### 5. Connect row

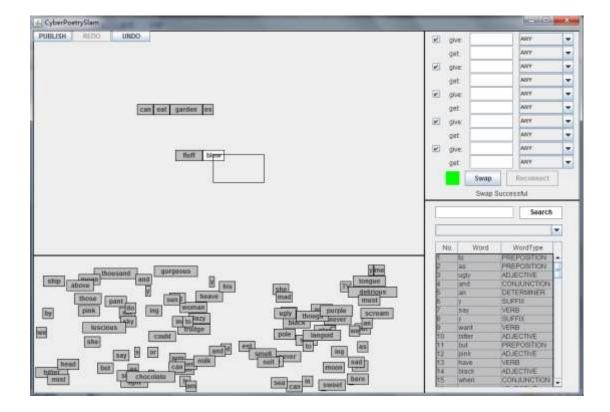
When there are at least two rows in the protected area, you can left click one row and drag it close to another row from any direction so that both turn green, then the row will be connected to the other row at that side (left/right/bottom/top).

## 6. Connect poem

When there are at least two poems in the protected area, you can left click one poem and drag it close to another poem only to the top or bottom. Then the poem will be connected to the other poem.

#### 7. Disconnect word/row

For disconnect word, if you want to disconnect a word inside a row, or a row inside a poem. Just left click your mouse and drag a selection box to that word or poem, as it is shown in the picture below. Then you can drag that word or row out, and that word or row is disconnected.



#### 8. Undo/Redo

If redo/undo button is available, user could click undo/redo button to change state. If operations involved publishing a poem, releasing poem and swap requests, these buttons will be disabled which means that feature is unavailable because there is nothing in the undo/redo stack, so the user can't undo/redo now. If user do some move, redo stack will clear automatically.

Memento-based undo/redo basically supports every operation in undo/redo. However command-based undo/redo can't work for special cases.

## 9. Memento

Once user wants to exit the program and click "X" exit the application, system will write state information to memento.storage file (if file does not exist, system will create one).

When user opens the application, it will read the content in memento.storage and loads to that state, so that user can continue working with last state.

#### 10. Shift Row

In a poem, user could first select a whole line row using selection box. Then user click that row, meanwhile user pressed "shift" button, so that user could move that particular row. The user can't move this row so that it's overlapping with other elements on the board, also user can't move this row to make this row disconnect from the poem it belongs to.

#### 11. Release Poem

When user feels like to release a poem, user could just click an entire poem, then user may drag and move the whole poem from protected area to unprotected area. The poem released will be disconnected to multiple words. And this operation can't be undo/redo.

# 12. Publish a poem

When there is a poem in the protected area, you can left click that poem and click the "publish" button at the left top corner. Then the poem is automatically released to the unprotected area. And also the poem is written into the wall.txt file in the project folder.

#### 13. Explore word

When you want to quickly find a word in the unprotected area, you can use the word table in the explore area. The table contains all the unprotected words. You can search words by input the word in the search bar or just choose the word type, then click the "search" the button. The table will be updated.

## 14. Select unprotected word

When you double click a word in the word table, the corresponding word in the unprotected area will be highlighted. Every word is distinguished by word id. So when you click a word in the word table, there will only be one unique word highlighted.

# 15. Swap

To swap words, use the swap pane in the upper right of the interface. There are five rows for the swap, each with a checkbox. The user can check or uncheck the corresponding check box depending on how many words they would like to swap. The user can also provide information to limit the swap, such as specifying which words s/he wants to give away or get, and/or the types of those words. Specifying the words will limit the words that the swap request chooses to swap. When the user clicks swap, the system will pick words that match the criteria to form the request with, and will send the swap request. If the system cannot form a swap request from the specified words, then it will display a message stating that you cannot swap words that you do not have. When a confirm swap message is received, the swap will be performed, and the user can use their new words.

When the system receives a match swap request, it will automatically attempt to fulfill it and respond accordingly. The user does not need to provide any input, and may not even notice that they have been swapped with unless they are watching their unprotected area closely when the swap happens.