Group 1

6/30/2018

Baker's Dozen Solitaire Requirements Definitions

**REQ 1** The system must be designed to run in a graphical user interface

**REQ 2** The system will have a game menu on the user interface which will allow the user to start a new

game, undo a move made in the game, and quit the game.

**REQ 3** The system must build a set of 52 cards.

**REQ 4** The system must create 13 tableau slots.

**REQ 5** The system must create 4 foundation slots.

**REQ 6** The system must set up the game correctly.

First placing each king down face up onto the bottom of a randomly chosen tableau slot, and then placing the rest of the cards down face up onto each tableau slot until they each have 4 cards in them.

**REQ 7** The system must draw the setup of cards and slots onto a game screen on the user interface

Input: CardGraphics – which encapsulate a card and slot index and hold x,y,width,height state.

Process: Read the data from the CardGraphic, figure out what kind of card it is, and where to draw it.

Output: Display CardGraphic on screen.

**REQ 8** The system will detect mouse events when the user clicks on the game screen.

Input: Mouse Click event

Process: Process Event

Output: (x,y) position data.

**REQ 9** The system will allow users to select a card by clicking on top cards of slot piles drawn on screen.

**REQ 11** The system will allow users to select a slot if they currently have no cards in them.

**REQ 12** The system must allow users to move cards provided that it follows the logic of the game:

-A card selected to be moved onto the top of a empty foundation slot must be an ace.

-A card selected to be moved onto the top of a foundation slot with cards must be the same suit and its rank must be 1 higher than the one it will cover.

-A card selected to be moved onto the top of a tableau slot must have a rank 1 lower than the

card it will cover, suit does not matter.

-An empty slot cannot be moved, only selected (like when trying to move an ace onto an empty foundation slot)

-A card cannot be moved onto an empty tableau slot.

**REQ 13** The system will display a win screen when the user moves every card from the tableau slots onto the 4 foundation slots

**REQ 14** The system will allow the user to undo moves made in the game, going back one move at a time to a spot they want.

**REQ 15** The system will have a stats bar on the user interface which will display a game timer and a move counter.

**REQ 16** The system will detect when moves are made and when undo move has been used and adjust the move counter accordingly.