Data Structures
Homework #3

Evan Akers
Saylee Dharne
Kyle O'Connor
Smit Patel

Test Cases

Project Name: Homework 3

Test Case: War- Rounds

Test Case ID: War_TestRounds

Test Designed by: Kyle O'Connor

Test Priority (Low/Medium/High): High

Test Designed date: 2/19/2017

Module Name: Game of War

Test Executed by: Saylee Dharne

Test Title: Game will end after 'x' rounds

Test Execution date: 2/20/2017

Description: If game 02 is selected the game will end after
'x' amount of rounds and the winner of the most rounds wins the game.

Pre-conditions: User has selected game option 2 (end after certain amount of rounds) as the input for game type.
Dependencies:

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Input Name	'Kyle'	The game should end after 10 rounds have been played	Game accepted name and started.	Pass	
2	Input game type 2	2		Accepted input of 2 and asked for number of rounds to play.	Pass	
3	Select the amount of rounds	10			Pass	
4	Play the game			Game was played with no errors.	Pass	
5	Game should end after the user input amount of rounds have been played			End of game message of winning was printed. The output while testing was:	Pass	

				Congratulations, Kyle! You have won the game.		

Post-conditions:
The user will have either won or lost the game after 10 rounds of the game of war have been played.

Homework 3

Test Case- War: Side pile protection

Test Case ID: War_Sidepile_1

Test Designed by: Evan Akers

Test Priority (Low/Medium/High): High

Test Designed date: 2/20/2017

Module Name: War Deck of Cards

Test Executed by: Kyle O'Connor

Test Title: Verify the side pile cannot be manipulated in a wrong way

Test Execution date: 02/20/2017

Description: Test the side pile used in War

Pre-conditions: Game has been started with no errors and deck should not be empty.
Dependencies: Cards should be properly initialized.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	The game is started. The name of the player should be entered. Either option of playing till a player runs out of cards or for a number of rounds can be entered.	PlayerName 1 or 2 If 2 was selected, any number between 1 and 1000	The game should be started and the user should be shown their card and asked what move they would like to play.		Pass	
2	User should play a card from the deck and a card from the side pile, by selecting option 2. This needs to be done 6 times	2	Player Side pile has 0 cards and a message is displayed saying the side pile is empty	The option is available for the player to use cards in the side pile as long as the number of cards is above 0	Pass	
3	User should store the card they draw in the	3	Player Side pile has 5 cards and a message is	The player has the option to add cards to	Pass	

	side pile 6 times		displayed saything the side pile is full, no more cards can be added	the side pile as long as the number of cards is below 5		

—

Homework 3

Test Case- War: The Deck of Card Moves Work

Test Case ID: War_1

Test Designed by: Saylee Dharne

Test Priority (Low/Medium/High): High

Test Designed date: 2/19/2017

Module Name: War Deck of Cards

Test Executed by:

Test Title: Verify that the Deck of Cards options work correctly

Test Execution date:

Description: Test the deck of cards used in War

Pre-conditions: Game has been started with no errors and deck should not be empty.
Dependencies: Cards should be properly initialized.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	The game is started. The name of the player should be entered. Either option of playing till a player runs out of cards or for a number of rounds can be entered.	PlayerName 1 or 2 If 2 was selected, any number between 1 and 1000	The game should be started and the user should be shown their card and asked what move they would like to play.			
2	User should play card from deck, by selecting option 1.	1	Deck has fewer cards after playing the card.	Deck went from 21 to 20 cards	Pass	Deck only has fewer cards if the user loses the round
3	User should play a card from the deck and a card from the side pile, by selecting option 2.	2	Deck has 1 less card and side pile has 1 less card after playing.	Deck and side pile respectively went from 24 and 3 to 23 and 2	Pass	
4	User should add current card to the side pile and play next card from deck, by	3	Deck has 1 less card and side pile has 1 more card after playing.	Deck has either 2 less cards when losing or 2 more cards when winning	Pass-OK	

	selecting option 3.					
	Test edge cases:		.			
5	Get 1 card in the deck and try to select option 3 of adding a card to the side pile. User should not be able to add current card to the side pile and play next card from deck, if the number of cards in the deck is 1 or if the side pile is full.	3	Option for adding card to the side pile should not appear and if the user still chooses the option, they are prompted for another input.	Tells user that is not a valid option	Pass	
6	Have a full side pile and try to select option 3 of adding a card to the side pile. User should not be able to add current card to the side pile and play next card from deck, if the number of cards in the deck is 1 or if the side pile is full.	3	Option for adding card to the side pile should not appear and if the user still chooses the option, they are prompted for another input.	Option doesn't appear, input is prompted again	Pass	
7	Empty the side pile and try to select option 2 to play a card from the side pile. User should not be able to play a card from the deck and a card from the side pile, if the side pile is empty or if the user is playing from the side pile and there is only 1 card in the side pile.	2	Option for playing a card from the side pile should not appear and if the user still chooses the option, they are prompted for another input.	Option doesn't appear, input is prompted again	Pass	
8	Empty the deck. User should not be able to see/ play any cards from the empty deck.		Option to play cards from the deck should not appear for an empty deck. The user should be directed to play from the side pile.	The game automatically draws from the side pile and tells the user	Pass	

Post-conditions:

User is validated with database and successfully login to account. The account session details are logged in database.

Compilation Instructions

This has been tested by creating a new project within Visual Studios with the following options:

Win32 Console Application
Create directory for solution OFF
Empty project ON
Precompiled header OFF
SDL OFF

Then
Add the following to the project:

- Deck.cpp
- Deck.h
- Player.cpp
- Player.h
- SidePile.cpp
- SidePile.h
- HW3Main.cpp

Build and run.

Contributions
Kyle O'Connor did task 1 and write up
Smit Patel helped with Task 1 and formatting/commenting
Evan Akers did task 2
Saylee Dharne did task 3