

Data Structures HW3 War Card Game, 3/25/2025

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Both group members contributed equally

Compilation requirements:

To compile and run the program, you must have a main.cpp, Deck.cpp, SidePile.cpp, Deck.h, Node.h, and Sidepile.h. Program could compile and run properly in Visual Studio (Community Edition 2022) as of submission.

Test Cases:

Project Name: Data Structures HW 3: War Card Game		Test Designed By: Connor Slutsky				
Test Name: Test adding cards to side pile		Test Designed Date: 3/24/2025				
Description: Ensure cards get appropriately added to side pile		Test Executed By: Cameron Shearer				
		Test Execution Date: 3/25/2025				
Precondition: User chooses to peek at top of deck before drawing their card						
Dependencies: N/A						
Priorityv (Low/Medium/High): Medium						
Step	Test Step	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Start a new game					
2	Choose to peek at the first card		See value of top card in deck	Saw value 11	Pass	
3	Choose to add first card to top of side pile		Message indicating success	Saw message	Pass	
4	Choose to peek at next card		See value of 2nd card in deck	Saw value 8	Pass	
5	Choose to add this card to top of side pile		Message indicating success	Saw message	Pass	
6	Choose to peek at next card		See value of 3rd card in deck	Saw value 6	Pass	
7	Choose to draw additional card from top of side pile		added to side pile will be combined with third card in deck	Saw message	Pass	
8	Ensure additional card is the same as the second card you added to the side pile			Shows 6 and 8	Pass	

Project Name: Data Structures HW 3: War Card Game		Test Designed By: Cameron Shearer				
Test Name: Test view info		Test Designed Date: 3/24/2025				
Description: Ensure viewing current cards in deck and side pile work properly		Test Executed By: Connor Slutsky				
		Test Execution Date: 3/25/2025				
Precondition: User chooses to peek at top of deck before drawing their card						
Dependencies: N/A						
Priority (Low/Medium/High): Medium						
Step	Test Step	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Start a new game					
2	Choose to view current deck/sidepile count		52 card in deck, 0 in sidepile, COM does not take a turn	52 in deck, 0 in sidepile	Pass	
3	Play a card		Player and COM draw a card, card values get compared and winner is determined	Player draws 12, COM draws 3, Player wins	Pass	
4	Choose to view current deck/sidepile count		From last time checked, an additional in deck count if won in last step or one less if lost	53 in deck, 0 in sidepile	Pass	
5	Choose to peek at next card		Value of next card revealed and gets added to sidepile, next card gets drawn and compared with COM card, winner determined	3 added to top of sidepile, Player drew a 10, COM drew a 6, Player win	Pass	
6	Choose to view current deck/sidepile count		Same or two below as cards in deck as last time checked, depending on winner, sidepile should contain 1 card	53 in deck, 1 in sidepile	Pass	
7	Choose to peek at next card		Value of next card revealed, choice given to add to sidepile or to play in addition to side pile	Next card is 12, choice was given	Pass	
8	Choose to play with top of sidepile		Combination of previous card and card in side pile gets compared with COM card, winner determined	12+3 compared with COM card of 7. Player win	Pass	
9	Choose to view current deck/sidepile count		From last time checked, an additional 2 in deck count if won in last step, or one less in card count if lost. Sidepile should be back to 0	55 in deck, 0 in sidepile	Pass	