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**Task 2 Test Cases**

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| **#** | **Description** | **Test Steps** | **Expected Results** | **Results** |
| 1 | The Clear command | Inputting “5” into the main menu | It should ask “Are you sure you want to clear the list? (Y/N): “ | Pass |
| 2 | Input to Clear command | After #1, Inputting uppercase “Y” or lowercase “y” | It should clear the list. | Pass |
| 3 | Input to Clear command | After #1, Inputting uppercase “N” or lowercase “n” | It should cancel the clearing operation. | Pass |
| 4 | Input to Clear command | After #1, Inputting any values other than Y/y or N/n | It should prompt the user to input Y or N. | Pass |
| 5 | The Reverse command | Inputting “6” into the main menu, using reverse command on a populated list | It should reverse the order of the list. | Pass |
| 6 | The Reverse Command | Using the reverse command on an empty list | Nothing should happen. | Pass |
| 7 | Pop command | Using pop on a populated list. | It should return the index of the last item, and the last item in the list removed from the list. | Pass |
| 8 | Pop command | Using pop on empty list. | It should prompt the user that the list is empty. | Pass |
| 9 | Size command | Using size on populated list | It should return the number of elements in the list. | Pass |
| 10 | Size command | Using size on empty list | It should return 0. | Pass |
| 11 | Insert command | Use the Insert command, then input a value to be inserted, then inputting an index position in range | It should insert the input into the position specified | Pass |
| 12 | Insert command | Inputting an alphabet for the index position | It should ask the user to enter a valid index number. | Pass |
| 13 | Insert command | Inputting an invalid index position, e.g exceeding the range of the list | It should also insert the input into the last position. | Pass |
| 14 | Find command | Inputting a value that exists in the populated list | It should return the index of first occurrence of the item | Pass |
| 15 | Find command | Inputting a value that is not in the populated list | It should print False | Pass |
| 16 | Append command | Typing 1 to use Append command, then type in a numerical value [1,2,3] | It should asks for an item by “Item? “, then displays the whole list | Pass |
| 17 | Append command | Typing 1 to use Append, then type in nothing [“ “] or symbols or alphabets | It should add an empty item into the list. | Pass |
| 18 | Sort command | Using sort on an unsorted numerical list that is populated. | It should sort the list into numerical ascending order. | Pass |
| 19 | Sort command | Using sort on an unsorted list containing both numerical and alphabetical values. | It should sort the list into ascending numerical order, and then ascending alphabetical order. | Pass |
| 20 | Print command | Using Print on a populated list. | It should print out all elements in the list. | Pass |
| 21 | Print command | Using Print on an empty list. | It should print out an empty list []. | Pass |
| 22 | Quit command | Typing 4 into the command prompt to quit | The program should terminate without error messages. | Pass |
| 23 | Invalid input | Typing any other values than the listed in the menu, into the command prompt | The program should ask for a valid command number. | Pass |

**Task 3 Test Cases**

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| **#** | **Description** | **Test Steps** | **Expected Results** | **Results** |
| 1 | Testing the quit command | Typing ‘quit’ into the command | The program should stop and exit. | Pass |
| 2 | Testing moves | Type 1 into command | The blank space should move one spot up, swapping position with the one on top. | Pass |
| 3 | Testing moves | Type 2 into command | The blank space should move one spot down, swapping position with the one below. | Pass |
| 4 | Testing moves | Type 3 into command | The blank space should move left one spot, swapping position with the left number. | Pass |
| 5 | Testing moves | Type 4 into command | The blank space should move right one spot, swapping position with the right number. | Pass |
| 6 | Moves out of bound | Typing 1 into command when the blank space X is at the topmost row | The program should return “Illegal move”. | Pass |
| 7 | Moves out of bound | Typing 2 into command when the blank space X is at the lowest row | The program should return “Illegal move.” | Pass |
| 8 | Moves out of bound | Typing 3 into command when the blank space X is at the leftmost column | The program should return “Illegal move.” | Pass |
| 9 | Moves out of bound | Typing 4 into command when the blank space X is at the rightmost column | The program should return “Illegal move.” | Pass |
| 10 | Invalid inputs | Typing invalid values such as alphabets (a, b, z), symbols (\_, \*, >) into the command | The program should prompt the user to put in a valid command. | Pass |

**Extended**

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| 11 | Testing the reset command | Typing “reset” into the command prompt | The game board should reset and randomize into a different layout. | Pass |