

System Test Plan

Instructions. In this section, you must provide your system test plan with at least 5 test cases. **If you want to provide more than 5 test cases, add an appendix at the end of this document with the 6th, 7th, etc. test cases so that page numbers for all sections match the required template!**

Make sure:

- You provide your sample test data
- Test IDs are uniquely identified and descriptive
- Test descriptions are fully specified with complete inputs, specific values, and preconditions
 - Be sure to provide SPECIFIC INPUTs and VALUEs so that your test cases are repeatable
- Expected results are fully specified with specific output values
- All tests cover scenarios based on the problem statement
- All tests cover unique scenarios for the system
- All strategies for system testing are demonstrated in the tests (testing equivalence classes, testing boundary values, testing exceptions/unexpected inputs)

Test Data:

roomsInfo.txt:

```
ROOM_ID,LENGTH,WIDTH
Office,12,14
Dining Room,15,15
Kitchen,18,20
Bedroom,17,16
```

cleaningInfo.txt:

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TIMESTAMP,ROOM_ID,PERCENT_CLEANED
06/01/2021 13:39:01,Office,78
05/31/2021 09:27:45,Dining Room,89
05/23/2021 11:51:19,Bedroom,77
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roomEmpty.txt:

ROOM_ID, LENGTH, WIDTH

cleaningEmpty.txt:

TIMESTAMP, ROOM_ID, PERCENT_CLEANED

largeRoomInfo.txt:

ROOM_ID, LENGTH, WIDTH

Big Room, 12, 440

largeCleaningInfo.txt:

TIMESTAMP, ROOM_ID, PERCENT_CLEANED

06/01/2021 15:00:00, Big Room, 99

06/01/2021 14:30:00, Big Room, 1

06/01/2021 14:00:00, Big Room, 1

<p>(Equivalence classes & boundary values - input number of rooms in frequency report)</p> <p>(Unexpected input - input invalid number of rooms in report)</p>	<p>Steps:</p> <ol style="list-style-type: none"> 1. Select view report of the most frequently cleaned rooms. 2. Input 0 when prompted to enter the number of rooms included in the report. 3. <i>Check results</i> 4. Select view report of the most frequently cleaned rooms. 5. Input -1 when prompted to enter the number of rooms included in the report. 6. <i>Check results</i> 7. Input 5 when prompted to enter the number of rooms included in the report. 8. <i>Check results</i> 9. Select view report of the most frequently cleaned rooms. 10. Input 1 when prompted to enter the number of rooms in the report. 11. <i>Check results</i> 12. Close CleaningManager 	<p>System reports "Number of rooms must be greater than 0" then takes the user back to the menu.</p> <p>System reports "Number of rooms must be greater than 0" then takes the user back to the menu.</p> <p>System outputs the following: Frequency of Cleanings [Bedroom has been cleaned 1 times Dining Room has been cleaned 1 times Office has been cleaned 1 times Kitchen has been cleaned 0 times]</p> <p>System outputs the following: Frequency of Cleanings [Bedroom has been cleaned 1 times]</p>	<p>System reports "Number of rooms must be greater than 0" then takes the user back to the menu asking them to enter a number between 1-4, inclusive.</p> <p>System reports "Number of rooms must be greater than 0" then takes the user back to the menu.</p> <p>System outputs the following: Frequency of Cleanings [Bedroom has been cleaned 1 times Dining Room has been cleaned 1 times Office has been cleaned 1 times Kitchen has been cleaned 0 times]</p> <p>System outputs the following: Frequency of Cleanings [Bedroom has been cleaned 1 times]</p>
<p>Test #3</p> <p>testCleaningReportbyRoom</p> <p>(Equivalence Class - check report for rooms that have not been cleaned or do not exist)</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • CleaningManager has been loaded successfully. • The files roomsInfo.txt, cleaningInfo.txt, roomEmpty.txt, and cleaningEmpty.txt exists. <p>Steps:</p>		

	<ol style="list-style-type: none"> 1. Enter "input/roomEmpty.txt" and submit. 2. Enter "input/cleaningEmpty.txt" and submit. 3. Select option to produce a report of the dates and times each room has been cleaned. 4. <i>Check results</i> 5. Close and restart CleaningManager. 6. Enter input/roomsInfo.txt and submit. 7. Enter input/cleaningInfo.txt and submit. 8. Select option to produce a report of the dates and times each room has been cleaned. 9. <i>Check results</i> 10. Close CleaningManager 	<p>System reports "No rooms have been cleaned."</p> <p>System outputs the following: Room Report [Bedroom was cleaned on [05/23/2021 11:51:19] Dining Room was cleaned on [05/31/2021 09:27:45] Kitchen was cleaned on [(never cleaned)] Office was cleaned on [06/01/2021 13:39:01]]</p>	<p>System reports that no rooms have been cleaned then returns back to the menu.</p> <p>System outputs the following: Room Report [Bedroom was cleaned on [05/23/2021 11:51:19] Dining Room was cleaned on [05/31/2021 09:27:45] Kitchen was cleaned on [(never cleaned)] Office was cleaned on [06/01/2021 13:39:01]]</p>
<p>Test #4</p> <p>testReportVacuumBagRemainingLife</p> <p>(Equivalence Class - input different dates/times vacuum was replaced)</p> <p>(Unexpected input - enter improperly formatted date)</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • All steps of Test #1 have passed expect for the last step (do not close CleaningManager) <p>Steps:</p> <ol style="list-style-type: none"> 1. Choose to view a report of the estimated remaining vacuum bag life. 2. When prompted to enter the date/time the bag was replaced, input "typo" and submit. 3. Check results 4. When prompted again, enter "06/01/2022 12:00:00" and submit 5. Check results 	<p>System should report "Date & time must be in the format: MM/DD/YYYY HH:MM:SS"</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2022 12:00:00) [</p>	<p>System outputs "Date & time must be in the format: MM/DD/YYYY HH:MM:SS"</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2022 12:00:00) [Bag is due for replacement in 5280 SQ FT</p>

	<ol style="list-style-type: none"> Choose to view a report of the remaining vacuum bag life. Input "06/01/2021 14:00:00" and submit Check results 	<p>Bag is due for replacement in 5280 SQ FT]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:00:00) [Bag is due for replacement in 5280 SQ FT]</p>	<p>]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:00:00) [Bag is due for replacement in 5280 SQ FT]</p>
<p>Test #5</p> <p>testReportVacuumBagRemainingLife</p> <p>(Equivalence Class - input date/time such that vacuum would require replacement)</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> CleaningManager has been loaded successfully. The files largeRoomInfo.txt and largeCleaningInfo.txt exists. <p>Steps:</p> <ol style="list-style-type: none"> When prompted to specify the input file for the room/cleaning information, enter input/largeRoomInfo.txt then input/largeCleaningInfo.txt. Choose to view a report of the estimated vacuum bag life. When prompted to enter the date/time the bag was replaced, input "06/01/2021 14:45:00" and submit. <i>Check results</i> Choose to view another report of remaining vacuum bag life. Enter "06/01/2021 14:00:11" and submit. <i>Check results</i> Choose to view another report of remaining vacuum bag life. Enter "06/01/2021: 13:00:00" and submit. 	<p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:45:00) [Bag is due for replacement in 53 SQ FT]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:00:11) [Bag is due for replacement in 1 SQ FT]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 13:00:20) [Bag is overdue for replacement!]</p>	<p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:45:00) [Bag is due for replacement in 53 SQ FT]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 14:00:11) [Bag is due for replacement in 1 SQ FT]</p> <p>System outputs the following: Vacuum Bag Report (last replaced 06/01/2021 13:00:20) [Bag is overdue for replacement!]</p>

	<div>10. <i>Check results</i></div> <div>11. Close CleaningManager</div>		
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