

System Tests

Write at least 5 tests. We will grade the first five. Your tests should consider more complex scenarios than basic system startup and an invalid test file.

Test ID	Description	Expected Results	Actual Results
Test 1: Start CleaningManager [UC1]	<p>Preconditions: None</p> <p>1. Run CleaningManagerGUI.</p> <p>2. Specify Input files:</p> <p>3. - Enter "rooms_data.csv" for room information file. - Enter "cleaning_logs.csv" for cleaning event logs.</p>	<ul style="list-style-type: none">• CleaningManagerGUI loads successfully• File Menu options are shown	<ul style="list-style-type: none">• Runs on Command Line• Prompts user to choose a report type they want to receive.

<p>Test 2: View Most Frequently Cleaned Rooms [UC2]</p>	<p>Preconditions: UC1 has passed</p> <p>4. Run CleaningManagerGUI.</p> <p>5. Specify Input files:</p> <p>- Enter "rooms_data.csv" for room information file. - Enter "cleaning_logs.csv" for cleaning event logs.</p> <p>6. Choose to view a report of the most frequently cleaned rooms.</p>	<p>CleaningManagerGUI loads</p> <p>.User can specify input files.</p> <p>Enter the number of rooms to include in the report (e.g., 5).</p> <p>User can choose to view a report of the most frequently cleaned rooms.</p> <p>The report displays the top 5 most frequently cleaned rooms with room names and cleaning frequency.</p>	<ul style="list-style-type: none"> • CleaningManagerGUI loads • User specifies two input files • User is prompted to choose a report type • User chooses to view the top 5 most frequently cleaned rooms • The report displays 5 most frequently cleaned rooms.
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Test 3: View Report of Cleanings by Room [UC3]	<p>Preconditions: UC1 has passed</p> <ol style="list-style-type: none"> 1. Run CleaningManagerGUI. 2. Specify Input files: 3. - Enter "rooms_data.csv" for room information file. - Enter "cleaning_logs.csv" for cleaning event logs.ticket and add a comment 4. Choose to produce a report of the dates and times of room cleanings 	<p>CleaningManagerGUI loads</p> <p>User can specify input files.</p> <p>User can choose to produce a report of cleanings by room.</p> <p>The report displays the dates and times each room has been cleaned in a tabular format, for example:</p> <p>The report displays the dates and times each room has been cleaned</p> <p>Example:</p> <p>Room Name Cleaning Date and Time -----</p> <p>--- Living Room 2023/09/01 08:00:00 Kitchen 2023/09/02 09:30:00 Bedroom 2023/09/03 12:15:00 Bathroom 2023/09/04 10:45:00 Dining Room 2023/09/05 15:20:00 Study 2023/09/06 11:10:00 Guest Bedroom 2023/09/07 14:00:00 Living Room 2023/09/08 09:45:00 Kitchen 2023/09/09 13:30:00 Bedroom 2023/09/10 16:20:00</p>	<p>CleaningManagerUI loads</p> <ul style="list-style-type: none"> • User specifies two input files • User is prompted to choose a report type • User chooses to view the room report • The report displays date and times that each of the rooms have been cleaned in alphabetical order by room, and chronological order by date and time.
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<p>Test 4: View Estimated Remaining Vacuum Bag Life [UC4]</p>	<p>Preconditions: UC1 has passed</p> <p>6. Run CleaningManagerGUI.</p> <p>7. Specify Input files:</p> <ul style="list-style-type: none"> - Enter "rooms_data.csv" for room information file. - Enter "cleaning_logs.csv" for cleaning event logs. <p>8. Choose to view a report of the estimated remaining vacuum bag life.</p> <p>Close GUI</p>	<p>CleaningManagerGUI loads</p> <p>User can specify input files.</p> <p>User can choose to view a report of the estimated remaining vacuum bag life.</p> <p>User can enter the date and time of the last vacuum bag replacement. The system calculates and displays the estimated remaining vacuum bag life in hours, for example:</p> <p>Enter the date and time of the last vacuum bag replacement (e.g., "2023-09-01 08:00:00").</p>	<p>CleaningManagerUI loads</p> <ul style="list-style-type: none"> User specifies two input files User is prompted to choose a report type User chooses to view the vacuum bag report The report displays date and time of the last replacement of the vacuum bag and how many square feet the vacuum can clean before it needs its next replacement.
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<p>Test 5: Handling Invalid Input</p> <p>[UC2]</p>	<p>Preconditions: UC1 has passed</p> <p>9. Run CleaningManagerGUI.</p> <p>7. Specify Input files:</p> <p>- Enter "rooms_data.csv" for room information file. - Enter "cleaning_logs.csv" for cleaning event logs.</p> <p>8. Input Invalid number of rooms</p> <p>Close GUI</p>	<p>CleaningManagerGUI loads.</p> <p>User can specify input files. When entering a value less than or equal to 0 for the number of rooms, the system displays an error message indicating that the input is invalid.</p> <p>Error Message: "Invalid input. Please enter a positive number of rooms."</p>	<p>CleaningManagerUI loads</p> <ul style="list-style-type: none"> • User specifies two input files • User is prompted to choose a report type • User chooses to view frequency report • User inputs -1 for the number of rooms • Error Message: "Number of rooms must be greater than 0." is printed
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<p>Test 6: Close CleaningManager [UC5]</p>	<p>Preconditions: UC1 has passed</p> <p>9. Run CleaningManagerGUI.</p> <p>10. Select the option to quit the software from the menu.</p>	<p>CleaningManagerGUI loads</p> <p>User can select the option to quit the software from the menu.</p> <p>CleaningManager closes, and input files remain unedited.</p>	<p>CleaningManagerGUI loads</p> <ul style="list-style-type: none"> • User types in “exit” to the command line • The software is quit
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