

## Roomit – tests summary page

### Unit Tests:

#### User Module –

Test Method Name	Title	Description
<code>test_change_status_get_insert_to_enter</code>	Change Status - Get (Insert to Enter)	Tests the behavior of changing the user's status from "Insert" to "Enter" using a GET request.
<code>test_change_status_get_enter_to_insert</code>	Change Status - Get (Enter to Insert)	Tests the behavior of changing the user's status from "Enter" to "Insert" using a GET request.
<code>test_display_property_offer_get</code>	Display Property Offer - GET	Tests the behavior of retrieving the property offer display page using a GET request.
<code>test_display_property_offer_post_valid_form</code>	Display Property Offer - POST (Valid Form)	Tests the behavior of submitting a valid form for the property offer display page using a POST request.
<code>test_display_property_offer_post_invalid_form</code>	Display Property Offer - POST (Invalid Form)	Tests the behavior of submitting an invalid form for the property offer display page using a POST request.

<code>test_display_property_reqs_get</code>	Display Property Reqs - GET	Tests the behavior of retrieving the property requirements display page using a GET request.
<code>test_display_property_reqs_post_invalid_form</code>	Display Property Reqs - POST (Invalid Form)	Tests the behavior of submitting an invalid form for the property requirements display page using a POST request.
<code>test_info_get_user_logged</code>	Info - GET (User Logged)	Tests the behavior of retrieving the user's info page when the user is logged in.
<code>test_info_get_user_unlogged</code>	Info - GET (User Unlogged)	Tests the behavior of retrieving the user's info page when the user is unlogged.
<code>test_info_post_valid_form</code>	Info - POST (Valid Form)	Tests the behavior of submitting a valid form on the user's info page using a POST request.
<code>test_info_post_invalid_form</code>	Info - POST (Invalid Form)	Tests the behavior of submitting an invalid form on the user's info page using a POST request.
<code>test_profile_get_user_logged</code>	Profile - GET (User Logged)	Tests the behavior of retrieving the user's profile page when the user is logged in.

<code>test_profile_get_user_unlogged</code>	Profile - GET (User Unlogged)	Tests the behavior of retrieving the user's profile page when the user is unlogged.
<code>test_profile_get_read_only</code>	Profile - GET (Read-Only)	Tests the behavior of retrieving the profile page of another user in read-only mode.
<code>test_profile_post_valid_form</code>	Profile - POST (Valid Form)	Tests the behavior of submitting a valid form on the user's profile page using a POST request.
<code>test_info_post_invalid_form</code>	Profile - POST (Invalid Form)	Tests the behavior of submitting an invalid form on the user's profile page using a POST request.
<code>test_correct</code>	Register - Correct Credentials	Tests the authentication of a user with correct credentials.
<code>test_wrong_username</code>	Register - Incorrect Username	Tests the authentication of a user with an incorrect username.
<code>test_wrong_password</code>	Register - Incorrect Password	Tests the authentication of a user with an incorrect password.

<code>test_set_status_get_redirect_insert</code>	Set Status - Get (Redirect Insert)	Tests the behavior of redirecting the user to the "Insert" page when accessing the status page with the status set to "Insert".
<code>test_set_status_get_redirect_enter</code>	Set Status - Get (Redirect Enter)	Tests the behavior of redirecting the user to the "Enter" page when accessing the status page with the status set to "Enter".

#### roomit\_app module –

Method Name	Title	Description
<code>test_calculate_score</code>	Calculate Score Test	Tests the calculation of a score based on certain properties and requirements.
<code>test_update_scores_only_creates_new_scores</code>	Update Scores Test	Tests that updating scores creates new scores.
<code>test_update_scores_correctly_calculates_enter_scores</code>	Update Scores Enter Test	Tests that updating scores correctly calculates enter scores.
<code>test_update_scores_correctly_calculates_insert_scores</code>	Update Scores Insert Test	Tests that updating scores correctly calculates insert scores.

test_update_scores_enter	Update Scores Enter Test	Tests the update of scores for the "enter" profile.
test_update_scores_insert	Update Scores Insert Test	Tests the update of scores for the "insert" profile.
test_make_requirementsP	Make RequirementsP Test	Tests the creation of requirementsP object.
test_make_requirementsR	Make RequirementsR Test	Tests the creation of requirementsR object.
test_requirementsP_authenticated	Authenticated requirementsP Test	Tests the requirementsP view for an authenticated user.
test_requirementsP_unauthenticated	Unauthenticated requirementsP Test	Tests the requirementsP view for an unauthenticated user.
test_requirementsR_authenticated	Authenticated requirementsR Test	Tests the requirementsR view for an authenticated user.
test_requirementsR_unauthenticated	Unauthenticated requirementsR Test	Tests the requirementsR view for an unauthenticated user.

test_likes_me_authenticated	Authenticated likes_me Test	Tests the likes_me view for an authenticated user.
test_likes_me_unauthenticated	Unauthenticated likes_me Test	Tests the likes_me view for an unauthenticated user.
test_i_like_authenticated	Authenticated i_like Test	Tests the i_like view for an authenticated user.
test_i_like_unauthenticated	Unauthenticated i_like Test	Tests the i_like view for an unauthenticated user.
test_more_authenticated_insert	Authenticated more (insert) Test	Tests the more view for an authenticated user with profile status "insert".
test_more_authenticated_enter	Authenticated more (enter) Test	Tests the more view for an authenticated user with profile status "enter".
test_more_unauthenticated	Unauthenticated more Test	Tests the more view for an unauthenticated user.
test_post_list_authenticated_insert	Authenticated post_list (insert) Test	Tests the post_list view for an authenticated user with profile status "insert".

test_post_list_authenticated_enter	Authenticated post_list (enter) Test	Tests the post_list view for an authenticated user with profile status "enter".
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#### Requirements:

##### ➤ Y/N requirements –

Test Method Name	Title	Description
test_calculate_score_desired_answer_yes	Calculate Score - Desired Answer: Yes	Tests the calculation of the score when the desired answer is "Yes".
test_calculate_score_desired_answer_no	Calculate Score - Desired Answer: No	Tests the calculation of the score when the desired answer is "No".
test_calculate_score_no_desired_answer	Calculate Score - No Desired Answer	Tests the calculation of the score when there is no desired answer.
test_calculate_score_answer_yes_not_desired_answer	Calculate Score - Answer: Yes, Not Desired Answer	Tests the calculation of the score when the answer is "Yes" but not the desired answer.

test_calculate_score_answer_no_not_desired_answer	Calculate Score - Answer: No, Not Desired Answer	Tests the calculation of the score when the answer is "No" but not the desired answer.
test_calculate_score_answer_empty_string	Calculate Score - Answer: Empty String	Tests the calculation of the score when the answer is an empty string.
test_calculate_score_answer_false	Calculate Score - Answer: False	Tests the calculation of the score when the answer is False.
test_calculate_score_answer_one	Calculate Score - Answer: 1	Tests the calculation of the score when the answer is 1.
test_calculate_score_answer_empty_list	Calculate Score - Answer: Empty List	Tests the calculation of the score when the answer is an empty list.
test_calculate_score_answer_non_empty_list	Calculate Score - Answer: Non-Empty List	Tests the calculation of the score when the answer is a non-empty list.
test_calculate_score_with_desired_answer	Calculate Score - With Desired Answer	Tests the calculation of the score with a desired answer specified.



test_calculate_score_without_desired_answer	Calculate Score - Without Desired Answer	Tests the calculation of the score without a desired answer specified.
test_calculate_score_with_non_bool_answer	Calculate Score - With Non-Boolean Answer	Tests the calculation of the score with a non-boolean answer.
test_desired_answer_none	Desired Answer: None	Tests the desired answer as <b>None</b> .
test_matching_bool_answer	Matching Boolean Answer	Tests the calculation of the score with a matching boolean answer.
test_non_matching_bool_answer	Non-Matching Boolean Answer	Tests the calculation of the score with a non-matching boolean answer.
test_answer_not_bool	Answer: Not Boolean	Tests the calculation of the score with a non-boolean answer.

➤ Range requirements –

Test Method Name	Title	Description
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test_calculate_score_when_min_and_max_are_none	Calculate Score - Min and Max: None	Tests the calculation of the score when both the minimum and maximum values are None.
test_calculate_score_when_max_is_none	Calculate Score - Max: None	Tests the calculation of the score when the maximum value is None.
test_calculate_score_when_answer_is_none	Calculate Score - Answer: None	Tests the calculation of the score when the answer is None.
test_calculate_score_when_answer_is_not_an_int	Calculate Score - Answer: Not an Integer	Tests the calculation of the score when the answer is not an integer.
test_calculate_score_when_answer_is_within_range	Calculate Score - Answer: Within Range	Tests the calculation of the score when the answer is within the specified range.
test_calculate_score_when_answer_is_outside_range_and_outside_tolerance	Calculate Score - Answer: Outside Range and Tolerance	Tests the calculation of the score when the answer is outside the specified range and tolerance.
test_both_min_max_none	Min and Max: None	Tests the scenario when both the minimum and maximum values are none.

test_answer_not_int	Answer: Not an Integer	Tests the scenario when the answer is not an integer.
test_answer_negative_number	Answer: Negative Number	Tests the scenario when the answer is a negative number.
test_answer_outside_range	Answer: Outside Range	Tests the scenario when the answer is outside the specified range.
test_answer_equal_to_min_max	Answer: Equal to Min/Max	Tests the scenario when the answer is equal to the minimum or maximum value.
test_answer_is_none	Answer: None	Tests the scenario when the answer is None.
test_answer_is_not_a_number	Answer: Not a Number	Tests the scenario when the answer is not a number.
test_answer_is_negative	Answer: Negative	Tests the scenario when the answer is a negative number.
test_answer_is_greater_than_max	Answer: Greater than Max	Tests the scenario when the answer is greater than the maximum value.

test_answer_is_less_than_min	Answer: Less than Min	Tests the scenario when the answer is less than the minimum value.
test_answer_is_equal_to_min	Answer: Equal to Min	Tests the scenario when the answer is equal to the minimum value.
test_answer_is_equal_to_max	Answer: Equal to Max	Tests the scenario when the answer is equal to the maximum value.
test_answer_is_in_range	Answer: In Range	Tests the scenario when the answer is within the specified range.
test_answer_birthdate_is_out_of_range	Answer: Birthdate out of Range	Tests the scenario when the answer (birthdate) is outside the specified range.
test_answer_birthdate_is_on_range	Answer: Birthdate on Range	Tests the scenario when the answer (birthdate) is on the specified range.
test_answer_birthdate_is_in_range	Answer: Birthdate in Range	Tests the scenario when the answer (birthdate) is within the specified range.
test_answer_is_not_birthdate	Answer: Not a Birthdate	Tests the scenario when the answer is not a birthdate.

test_answer_birthday_is_in_future	Answer: Birthday in Future	Tests the scenario when the answer (birthday) is in the future.
test_non_datetime_birthdate	Non-Datetime Birthdate	Tests the scenario when the answer (birthdate) is a non-datetime value.
test_non_numeric_min_or_max	Non-Numeric Min/Max	Tests the scenario when the minimum or maximum value is non-numeric.
test_non_numeric_answer	Non-Numeric Answer	Tests the scenario when the answer is non-numeric.

➤ List requirements –

Test Method Name	Title	Description
test_calculate_score_desired_answer_none	Calculate Score - Desired Answer: None	Tests the calculation of the score when the desired answer is <b>None</b> .
test_calculate_score_answer_none	Calculate Score - Answer: None	Tests the calculation of the score when the answer is <b>None</b> .

test_calculate_score_desired_answer_is_disjoint	Calculate Score - Desired Answer: Disjoint	Tests the calculation of the score when the desired answer is disjoint from the actual answer.
test_calculate_score_answer_is_subset	Calculate Score - Answer: Subset	Tests the calculation of the score when the actual answer is a subset of the desired answer.
test_calculate_score_answer_is_superset	Calculate Score - Answer: Superset	Tests the calculation of the score when the actual answer is a superset of the desired answer.
test_calculate_score_desired_answer_is_empty	Calculate Score - Desired Answer: Empty	Tests the calculation of the score when the desired answer is an empty set.
test_calculate_score_answer_is_none	Calculate Score - Answer: None	Tests the calculation of the score when the answer is <b>None</b> .
test_calculate_score_answer_does_not_ intersect_desired_answer	Calculate Score - Answer: No Intersection	Tests the calculation of the score when the answer does not intersect with the desired answer.

test_calculate_score_answer_intersects_desired_answer	Calculate Score - Answer: Intersects	Tests the calculation of the score when the answer intersects with the desired answer.
test_calculate_score_no_desired_answer	Calculate Score - No Desired Answer	Tests the calculation of the score when there is no desired answer.
test_calculate_score_desired_answer_dont_care	Calculate Score - Desired Answer: Don't Care	Tests the calculation of the score when the desired answer is "D" (don't care).
test_calculate_score_no_answer	Calculate Score - No Answer	Tests the calculation of the score when there is no answer.
test_calculate_score_answer_in_desired_answer	Calculate Score - Answer in Desired Answer	Tests the calculation of the score when the answer is in the desired answer list.
test_calculate_score_answer_not_in_desired_answer	Calculate Score - Answer not in Desired Answer	Tests the calculation of the score when the answer is not in the desired answer list.
test_calculate_score_with_empty_desired_answer_list	Calculate Score - Empty Desired Answer List	Tests the calculation of the score when the desired answer list is empty.

test_calculate_score_with_single_desired_answer	Calculate Score - Single Desired Answer	Tests the calculation of the score when there is a single desired answer.
test_calculate_score_with_non_list_answer	Calculate Score - Non-List Answer	Tests the calculation of the score when the answer is not a list.
test_calculate_score_with_non_string_answer	Calculate Score - Non-String Answer	Tests the calculation of the score when the answer contains non-string elements.

#### Security tests –

Test Method Name	Title	Description
test_unauthorized_access	Unauthorized Access	Verifies that when no user is logged in and attempts to access the admin page, they are redirected to the login page.
test_invalid_credentials	Invalid Credentials	Tests the scenario where the admin tries to log in with the wrong password and checks if the correct error message is displayed.



<code>test_password_reset</code>	Password Reset	Tests the functionality of password reset by sending a request and verifying the appropriate redirection.
<code>test_role_permissions</code>	Role Permissions	Tests the role-based permissions. Checks if a regular user is redirected to the login page when accessing the admin page and if the admin has access.
<code>test_input_sanitization</code>	Input Sanitization	Verifies that user input is sanitized to prevent cross-site scripting (XSS) attacks.

### Performance tests –

The **test\_performance** module is designed for performance testing using Locust, where multiple users simulate various tasks on a web application. This module focuses on simulating user registration, filling out user information, and performing tasks related to viewing the homepage and user profiles.

The performance test consists of three tasks:

- **registration**: Simulates user registration to the system and filling out their personal information and requirements.
- **view homepage**: Simulates users accessing the homepage of the web application by sending a GET request to the root URL.
- **view profile**: Simulates users viewing user profiles by sending a GET request to a randomly selected user's profile page. The username for the profile is chosen from the usernames list, which contains the usernames of all registered users.

The selected tasks for performance testing were intentionally chosen as they represent the heaviest operations in terms of database interactions and computational complexity. By focusing on these tasks, we aim to evaluate the system's performance under demanding scenarios that involve substantial database operations and computational calculations.

By running this performance test with Locust and scaling up the number of users, it becomes possible to measure the web application's performance under load. This module can help identify potential performance bottlenecks, such as slow response times or resource limitations, allowing developers to optimize and improve the application's scalability.