Task Management System - FastAPI Documentation

verify_firebase_token(request)

Validates the Firebase token from the request cookies. Returns decoded token data if valid; otherwise, returns None.

get_user_uid(request)

Get the UID (user id) of the currently logged-in user by validating the Firebase token. If unauthenticated, redirects to home page.

is_board_member(user_uid, task_board_ref)

Checks if the user is a member of the given task board.

is_board_creator(user_uid, task_board_ref)

Checks if the user is the creator of the given task board.

get_board_members(task_board_ref)

Returns a list of all members of a task board, including their name and email.

get_available_users(user_uid, exclude_ids)

Retrieves all users excluding the current user and any in the optional exclude ids list.

index(request)

Displays the landing page for the app.

register(request)

Displays the registration page.

create_board(request)

Displays a form for creating a new task board, allowing user selection.

create_taskboard(request, name, description, users)

Creates a new task board with a name, description, and list of members. Updates member documents with a reference to the new board.

task_board(request, task_board_id)

Displays all tasks and members of a specific task board. Validates access permissions

edit_task_board_page(request, task_board_id)

Displays a form to edit the task board's name and description. Only accessible to the creator.

update_task_board(request, task_board_id, name, description)

Updates the task board's name and description. Restricted to the board's creator.

delete_task_board(request, task_board_id)

Deletes the task board after validating that there are no tasks or members (except the creator). Removes references from user documents.

add_board_member(request, task_board_id)

Adds a new user to a task board. Restricted to the board creator.

remove_board_member(request, task_board_id)

Removes a user from a task board and unassigns them from all tasks. Restricted to the board creator.

add_task_page(request, task_board_id)

Displays a form to add a new task to the board. Validates membership

create_task(request, task_board_id, title, description, deadline, assigned_members)

Creates a task in the task board with optional deadline and member assignment. Checks for duplicate task titles.

edit_task_page(request, task_board_id, task_id)

Displays a form to edit an existing task's details and assignments.

update_task(request, task_board_id, task_id, title, description, deadline)

Updates an existing task's title, description, deadline, and members. Prevents duplicate task titles.

complete_task(request, task_board_id, task_id)

Marks a task as completed. Only allowed if the user is assigned to the task.

delete_task(request, task_board_id, task_id)

Deletes a task from the board. Validates membership.

home(request)

Displays a list of all task boards the user belongs to, and indicates if the user is the creator of each.

search_users(request, q, board_id)

Searches for users by name or email. Excludes current user and current board members if board_id is provided.

assign_task(request, task_board_id, task_id)

Assigns selected members to a specific task after validating their membership in the board.

Database Collections

Users Collection:

- **fullName:** Full name of the user.

- **email:** User email address.

- **task_boards:** List of references to task boards the user is part of.

- **createdAt:** Timestamp when the user was created.

Task Boards Collection:

- **name:** Task board name.

- **description:** Description of the board.

- **created_by:** Reference to the user who created the board.

- **members:** List of user references part of the board.

- **created_at:** Timestamp when the board was created.

Tasks Subcollection (within each task board):

- **title:** Title of the task.

- **description:** Task details.

- **status:** Task status (e.g., "InComplete", "Completed").

- **deadline:** Deadline for task completion.

- **created_at:** Timestamp when the task was created.

- **updated_at:** Last update timestamp.

- **created_by:** Reference to the user who created the task.

- **assigned_members:** List of user references assigned to the task.

- **completed_at:** Timestamp when the task was marked completed.