Smart Meeting Room API – Controllers & Endpoints Report

Overview

The Smart Meeting Room API is an ASP.NET Core Web API providing a comprehensive backend for managing meetings, rooms, users, roles, features, and related entities in a smart meeting room environment. The API follows REST principles, supports CRUD operations for all major entities, and includes specialized endpoints for meeting attendees, action items, room availability, and authentication.

ActionItemsController

HTTP	Endpoint	Description
GET	/ActionItems	Retrieve all action items.
POST	/ActionItems	Create a new action item.
GET	/ActionItems/{id}	Retrieve an action item by ID.
PUT	/ActionItems/{id}	Update an action item by ID.
DELETE	/ActionItems/{id}	Delete an action item by ID.

AttachmentsController

HTTP	Endpoint	Description
GET	/Attachments	Retrieve all attachments.
POST	/Attachments	Create a new attachment.
GET	/Attachments/{id}	Retrieve an attachment by ID.
PUT	/Attachments/{id}	Update an attachment by ID.
DELETE	/Attachments/{id}	Delete an attachment by ID.

FeaturesController

HTTP	Endpoint	Description
GET	/Features	Retrieve all features.
POST	/Features	Create a new feature.
GET	/Features/{id}	Retrieve a feature by ID.
PUT	/Features/{id}	Update a feature by ID.
DELETE	/Features/{id}	Delete a feature by ID.

MeetingsController

HTTP	Endpoint	Description
GET	/Meetings	Retrieve all meetings.
POST	/Meetings	Create a new meeting.
GET	/Meetings/{id}	Retrieve a meeting by ID.
PUT	/Meetings/{id}	Update a meeting by ID.
DELETE	/Meetings/{id}	Delete a meeting by ID.
GET	/Meetings/{meetingId}/attendees	Retrieve attendees of a meeting.
POST	/Meetings/{meetingId}/attendees	Add an attendee to a meeting.
GET	/Meetings/{meetingId}/action-items	Retrieve action items linked to a meeting.
POST	/Meetings/{meetingId}/cancel	Cancel a meeting.
DELETE	/Meetings/{meetingId}/attendees/{userId}	Remove an attendee from a meeting.

MomsController

HTTP	Endpoint	Description
GET	/Moms	Retrieve all MOM entries.
POST	/Moms	Create a new MOM.
GET	/Moms/{id}	Retrieve a MOM by ID.
PUT	/Moms/{id}	Update a MOM by ID.
DELETE	/Moms/{id}	Delete a MOM by ID.

RolesController

HTTP	Endpoint	Description
GET	/Roles	Retrieve all roles.
POST	/Roles	Create a new role.
GET	/Roles/{id}	Retrieve a role by ID.
PUT	/Roles/{id}	Update a role by ID.
DELETE	/Roles/{id}	Delete a role by ID.

RoomsController

HTTP	Endpoint	Description
GET	/Rooms	Retrieve all rooms.
POST	/Rooms	Create a new room.
GET	/Rooms/{id}	Retrieve a room by ID.
PUT	/Rooms/{id}	Update a room by ID.

HTTP	Endpoint	Description
DELETE	/Rooms/{id}	Delete a room by ID.
GET	/Rooms/{roomId}/meetings	Retrieve meetings scheduled in a room.
GET	/Rooms/available	Retrieve available rooms.
GET	/Rooms/{id}/features	Retrieve features linked to a room.
POST	/Rooms/{id}/features	Add a feature to a room.
DELETE	/Rooms/{id}/features/{featureId}	Remove a feature from a room.

UsersController

HTTP	Endpoint	Description
GET	/Users	Retrieve all users.
POST	/Users	Create a new user.
GET	/Users/{id}	Retrieve a user by ID.
PUT	/Users/{id}	Update a user by ID.
DELETE	/Users/{id}	Delete a user by ID.
GET	/Users/{userId}/meetings	Retrieve meetings for a specific user.
GET	/Users/{userId}/action-items	Retrieve action items for a specific user.
POST	/Users/Login	User login/authentication.

Technical Highlights

- Framework: ASP.NET Core Web API
- ORM: Entity Framework Core
- Database: SQL Server
- Design Principles: RESTful architecture, DTO usage, separation of concerns
- Logging: Built-in ILogger for structured error logging
- Error Handling: Try/catch blocks with HTTP status responses
- Security: Authorization attribute placeholders ([Authorize]) ready for JWT or role-based security

Conclusion

The Smart Meeting Room API offers a complete backend structure for meeting room management, covering CRUD operations, advanced relationship handling (attendees, action items, features), authentication, and room availability checks. This setup is production-ready with proper DTO mapping, logging, and extensibility for future features.