



# Social Media Platform

## Introduction



Welcome to the documentation for our Social Media Platform project! This project aims to provide a comprehensive and scalable solution for building a social media platform, enabling users to connect, share posts, comment, like, and engage in a dynamic online community.

## Objective



**The primary objective of our Social Media Platform project is to create a feature-rich and scalable platform that fosters online connectivity and engagement among users. The project aims to provide a dynamic and interactive environment for users to connect, share content, and build meaningful relationships within a virtual community.**

## Database Schema

▼ ER Diagram

[erdiag\\_smp.mwb](#)

<https://prod-files-secure.s3.us-west-2.amazonaws.com/31282dbc-a6a3-454c-930f-bedcf45363ec/8fbe83f3-3f8f-4a98-99d4-1ed10394c1a3/smperdiag.pdf>

▼ Database Script File

[smpsql.sql](#)

## Design Guidelines

1. All Rest API requests and response formats must be in JSON.
2. 200, 201, 400, 404, 401, 500, 505 – use the appropriate HTTP status code in your response object.
3. Handle the Rest exceptions globally using the Rest exception handler for all endpoints.
4. Test your Rest Api using Junit and Mockito.
5. Participants should not alter database schema under any circumstances except wherever changes are mentioned explicitly.

## Rest API Design

All REST API requests and responses follow the JSON format. The project implies standard HTTP status codes (200, 201, 400, 404, 401, 500, 505) appropriately in response objects to convey the outcome of API requests.

## Status Codes

HTTP response codes are used to indicate general classes of success and error.

HTTP Status Quote	Description
200	Successfully processed request.
201	Created
202	Accepted
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

# Endpoints

## Endpoints

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
<u>/api/users/all</u>	GET	Get a list of all users	<pre>{   "status":   "success",   "data": [     {       "userId": 1,       "username":       "user1",       // Additional       user data     },     {       "userId": 2,       "username":       "user2",       // Additional       user data     },     // Additional     users   ] }</pre>

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
<u>/api/users/{userId}</u>	GET	Get details of a specific user by ID.	{ "status": "success", "data": { "userId": 123, "username": "example_user", // Additional user data } }
<u>/api/users/search/{username}</u>	GET	Search for users by name	{ "status": "success", "data": { "username": "example_user", } }
<u>/api/users</u>	POST	Add Users	{ "status": "success", "message": "User created successfully." }
<u>/api/users/update/{userId}</u>	PUT	Update user details.	{ "status": "success", "message": "User updated successfully." }
<u>/api/users/delete/{userId}</u>	DELETE	Delete a user	{ "status": "success", "message": "User deleted"

Aa Name	🔗 Http Method	≡ Description	≡ Success Response
			successfully." }
<u>/api/users/{userId}/posts</u>	GET	Retrieve all posts created by a specific user	{ "status": "success", "data": [ { "postId": 1, "userId": 123, // Additional post data }, { "postId": 2, "userId": 123, // Additional post data }, // Additional posts ] }
<u>/api/users/{userId}/posts/comments</u>	GET	Retrieve all comments on posts created by a specific user	{ "status": "success", "data": [ { "commentId": 1, "postId": 123, // Additional comment data }, { "commentId": 2, "postId": 123, // Additional comment data }, // Additional comments ] }

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			} }
<u>/api/users/{userId}/friends</u>	GET	Retrieve all friends of a specific user.	{ "status": "success", "data": [ { "friendId": 1, // Additional friend data }, { "friendId": 2, // Additional friend data }, // Additional friends ] }
<u>/api/users/{userId}/friend-requests/pending</u>	GET	Retrieve pending friend requests for a specific user	{ "status": "success", "data": [ { "requestId": 1, "userId": 123, // Additional request data }, { "requestId": 2, "userId": 123, // Additional request data }, // Additional pending requests ] }

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			}
<u>/api/users/{userId}/friend-requests/send/{friendId}</u>	POST	Send a friend request from one user to another.	{ "status": "success", "message": "Friend request sent successfully." }
<u>/api/users/{userId}/messages/{otherUserId}</u>	GET	Retrieve all messages between two users	{ "status": "success", "data": [ { "messageId": 1, "userId": 123, "otherUserId": 456, "content": "Message content", // Additional message data }, { "messageId": 2, "userId": 123, "otherUserId": 456, "content": "Message content", // Additional message data }, // Additional messages ] }

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
<u>/api/users/{userId}/messages/send/{otherUserId}</u>	POST	Send a message from one user to another	{ "status": "success", "message": "Message sent successfully." }
<u>/api/users/{userId}/posts/likes</u>	GET	Retrieve all likes on posts created by a specific user.	{ "status": "success", "data": [ { "likeId": 1, "postId": 123, // Additional like data }, { "likeId": 2, "postId": 123, // Additional like data }, // Additional likes ] }
<u>/api/users/{userId}/likes</u>	GET	Retrieve all likes given by a specific user.	{ "status": "success", "data": [ { "likeId": 1, "postId": 123, // Additional like data }, { "likeId": 2, "postId": 123, // Additional like



Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			<pre>data }, // Additional likes ] }</pre>
<u>/api/users/{userId}/notifications</u>	GET	Retrieve all notifications for a specific user	<pre>{   "status":   "success",   "data": [     {       "notificationId":       1,       // Additional notification data     },     {       "notificationId":       2,       // Additional notification data     },     // Additional notifications   ] }</pre>
<u>/api/users/{userId}/groups</u>	GET	Retrieve all groups a user is a member of	<pre>{   "status":   "success",   "data": [     {       "groupId": 1,       // Additional group data     },     {       "groupId": 2,       // Additional group data     },     // Additional</pre>

Aa Name	🔗 Http Method	≡ Description	≡ Success Response
			<pre>groups ] }</pre>
<u>/api/post</u>	POST	Create a new post	<pre>{   "status":   "success",   "message":   "Post created successfully." }</pre>
<u>/api/post/{postId}</u>	GET	Retrieve Post by id	<pre>{   "status":   "success",   "data": {     "postId": 123,     // Additional     post data   } }</pre>
<u>/api/post/update/{postId}</u>	PUT	Update post details.	<pre>{   "status":   "success",   "message":   "Post updated successfully." }</pre>
<u>/api/post/delete/{postId}</u>	DELETE	Delete a post	<pre>{   "status":   "success",   "message":   "Post deleted successfully." }</pre>
<u>/api/posts/{postId}/likes/add/{userId}</u>	POST	Add likes to post	<pre>{   "status":   "success",   "message":   "Like added to   the post }</pre>

Aa Name	🔗 Http Method	≡ Description	≡ Success Response
			successfully." }
<u>/api/posts/{postId}/likes</u>	GET	Retrieve all likes on a specific post.	{ "status": "success", "data": [ { "likeId": 1, "userId": 123, // Additional like data }, { "likeId": 2, "userId": 123, // Additional like data }, // Additional likes ] }
<u>/api/posts/{postId}/likes/remove/{likeId}</u>	DELETE	Remove a like from a post	{ "status": "success", "message": "Like removed from the post successfully." }
<u>/api/users/{userId}/posts/likes</u>	GET	Retrieve all likes on posts created by a specific user.	{ "status": "success", "data": [ { "postId": 1, // Additional post data }, { "postId": 2,

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			// Additional post data }, // Additional posts liked by the user ] }
<u>/api/users/{userId}/friends</u>	GET	Retrieve friend of a user	{ "status": "success", "data": [ { "friendId": 1, // Additional friend data }, { "friendId": 2, // Additional friend data }, // Additional friends of the user ] }
<u>/api/users/{userId}/friends/{friendId}</u>	POST	Add a friend	{ "status": "success", "message": "Friend added successfully." }
<u>/api/users/{userId}/friends/{friendId}</u>	DELETE	Remove a Friend	{ "status": "success", "message": "Friend removed"

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			successfully." }
<u>/api/friends/{friendshipId}/messages</u>	GET	Retrieve all messages between friends	{ "status": "success", "data": [ { "messageId": 1, // Additional message data }, { "messageId": 2, // Additional message data }, // Additional messages between friends ] }
<u>/api/friends/{friendshipId}/messages/send</u>	POST	Send a message to a friend.	{ "status": "success", "message": "Message sent successfully." }
<u>Untitled</u>			
<u>Untitled</u>			
<u>/api/posts/{postId}/comments</u>	GET	Retrieve Comments for the post	{ "status": "success", "data": [ { "commentId": 1, "postId": "postId1", "content":

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			<pre> "Comment content 1", // Additional comment data }, { "commentId": 2, "postId": "postId2", "content": "Comment content 2", // Additional comment data }, // Additional comments ] } </pre>
<u>/api/comments</u>	GET	Retrieve a list of all comments	<pre> { "status": "success", "data": [ { "commentId": 1, "postId": "postId1", "content": "Comment content 1", // Additional comment data }, { "commentId": 2, "postId": "postId2", "content": "Comment content 2", </pre>

Aa Name	🔗 Http Method	≡ Description	≡ Success Response
			// Additional comment data }, // Additional comments ] }
<u>/api/comments/{commentId}</u>	GET	Retrieve a comment by its ID.	{ "status": "success", "data": { "commentId": 1, "postId": "postId1", "content": "Comment content 1", // Additional comment data } }
<u>/api/comments</u>	POST	Create a new comment	{ "status": "success", "message": "Comment created successfully." }
<u>/api/comments/{commentId}</u>	PUT	Update an existing comment by its ID	{ "status": "success", "message": "Comment updated successfully." }
<u>/api/comments/{commentId}</u>	DELETE	Delete a comment by its ID.	{ "status": "success", "message":

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			"Comment deleted successfully." }
<u>/api/posts/{postId}/comments</u>	POST	Add comment to post	{ "status": "success", "message": "Comment added to post successfully." }
<u>/api/posts/{postId}/comments/{commentId}</u>	DELETE	Delete a comment	{ "status": "success", "message": "Comment deleted successfully." }
<u>Untitled</u>			
<u>/api/users/{userId}/notifications</u>	GET	Retrieve notification of user	{ "status": "success", "data": [ { "notificationId": 1, "message": "Notification message 1", // Additional notification data }, { "notificationId": 2, "message": "Notification message 2", // Additional



Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			notification data , // Additional notifications ] }
<u>/api/users/{userId}/notifications/mark-read/{notificationId}</u>	PUT	Mark notification as read	{ "status": "success", "message": "Notification marked as read successfully." }
<u>/api/users/{userId}/notifications</u>	GET	Retrieve all notifications for a specific user	{ "status": "success", "message": "Notification of specific user retrieved successfully." }
<u>/api/users/{userId}/notifications/delete/{notificationId}</u>	DELETE	Delete Notification	{ "status": "success", "message": "Notification deleted successfully." }
<u>/api/messages</u>	GET	Retrieve a list of all messages.	{ "status": "success", "message": "Message details retrieved successfully." }

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
<u>/api/messages/{messageId}</u>	GET	Retrieve a message by its ID.	{ "status": "success", "message": "Message details of specific id retrieved successfully." }
<u>/api/messages</u>	POST	Create a new message.	{ "status": "success", "message": "Message created successfully." }
<u>/api/messages/{messageId}</u>	PUT	Update an existing message by its ID.	{ "status": "success", "message": "Message updated successfully." }
<u>/api/messages/{messageId}</u>	DELETE	Delete a message by its ID.	{ "status": "success", "message": "Message deleted successfully." }
<u>/api/groups</u>	GET	Retrieve a list of all groups	{ "status": "success", "message": "Groups retrieved"

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			successfully." }
<u>/api/groups/{groupId}</u>	GET	Retrieve a group by its ID.	{ "status": "success", "message": "Group details retrieved successfully." }
<u>/api/groups</u>	POST	Create a new group	{ "status": "success", "message": "Groups created successfully." }
<u>/api/groups/{groupId}</u>	PUT	Update an existing group by its ID.	{ "status": "success", "message": "Groups updated successfully." }
<u>/api/groups/{groupId}</u>	DELETE	Delete a group by its ID.	{ "status": "success", "message": "Groups deleted successfully." }
<u>/api/groups/{groupId}/leave/{userId}</u>	DELETE	Remove a user from a group	{ "status": "success", "message": "User successfully"

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
			left the group." }
<u>/api/groups/{groupId}/join/{userId}</u>	POST	Join a user to a group	{ "status": "success", "message": "User successfully joined the group." }
<u>/api/users/{userId}/groups</u>	GET	Retrieve all groups a user is a member of.	{ "status": "success", "message": "User's groups retrieved successfully." }
<u>/api/groups/{groupId}/messages</u>	GET	Retrieve all messages in a group	{ "status": "success", "message": "Group messages retrieved successfully." }
<u>/api/groups/{groupId}/messages/send/{userId}</u>	POST	Send a message to a group	{ "status": "success", "message": "Message sent to the group successfully." }
<u>/api/users/{userId}/friends/groups</u>	GET	Retrieve all groups where a user's	{ "status": "success", "message":

Aa Name	⚙ Http Method	≡ Description	≡ Success Response
		friends are members	"User's friends' groups retrieved successfully." }
<u>/api/groups/{groupId}/friends</u>	GET	Retrieve all friends who are members of a specific group	{ "status": "success", "message": "Group's friends retrieved successfully." }
<u>/api/groups/{groupId}/members</u>	GET	Retrieve all members of a specific group	{ "status": "success", "message": "Group members retrieved successfully." }
<u>/api/groups/{groupId}/members/add/{userId}</u>	POST	Add a user as a member to a group.	{ "status": "success", "message": "User successfully added to the group." }
<u>/api/groups/{groupId}/members/remove/{userId}</u>	DELETE	Remove a user from a group	{ "status": "success", "message": "User successfully removed from"

Aa Name	🔗 Http Method	☰ Description	☰ Success Response
			the group." }