

Social Media API

In this challenge, you have to create an Social Media API using that users can send friend requests to other users, and accept friend request to get added in friend list.

The following tables are provided:

USERS:

Field Name	Type	Primary Key	Foreign Key	Comments
ID	int	yes		
USERNAME	String			
PASSWORD	String			
AGE	int			
GENDER	String			
FRIENDS	List<Users>			
REQUEST	List<Users>			

FRIEND_REQUEST:

Field Name	Type	Primary Key	Foreign Key	Comments
TO_ID	int		yes	
FROM_ID	int		yes	

FRIEND_LIST:

Field Name	Type	Primary Key	Foreign Key	Comments
USERS_ID	int		yes	
FRIENDS_ID	int		yes	

Create the following api:

"/signup":

POST method - gets the data(**username**, password, age, gender) from request body, create a row in users model and return it in response with status code 201.

```
{
  "username": "uwu",
  "password": "uwu",
  "age": 23,
  "gender": "Female"
}
```

Request

```
{
  "username": "uwu",
  "age": 23,
  "gender": "Female",
  "noOfFriends": 0
}
```

Response

"/home":

GET method - gets the list of all users in response with status code 200.

```
[
  {
    "username": "kik",
    "age": 23,
    "gender": "Male",
    "noOfFriends": 0
  },
  {
    "username": "pop",
    "age": 21,
    "gender": "Male",
    "noOfFriends": 0
  }
]
```

Response

Since two users were created, and they are listed.

"/home?userId=id":

GET method - gets the id from url query, filter the data of particular user and return it in response with status code 200.

```
{
  "username": "uwu",
  "age": 23,
  "gender": "Female",
  "noOfFriends": 0
}
```

Response

"/addFriend/{id}":

POST method – send friend request to the id in the url from the user whose id is in request body and return a response with the username as follows with status code 200.

```
{
  "uid": 2
}
```

Request

```
{
  "status": "Request sent to kik"
}
```

Response

If the user , tries to send the request again to the same user, a response as follows with status code 200 should be returned.

```
{
  "status": "You have already sent request"
}
```

Response

If the to_user has already sent you a request before the from_user sent them, a response as follows with status code 200 should be returned.

```
{
  "status": "The User has already sent you a request"
}
```

Response

If the to user id in the body is invalid, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid from_UserID"
}
```

Response

If the to user tries to send the request to a invalid user id via url, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid to_UserID"
}
```

Response

If the user tries to send themselves request, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid UserId"
}
```

Response

`"/friendRequest/{id}":`

GET method - gets the list of all requests received in the response with the username of the id in url, with status code 200.

```
{
  "username": "kik",
  "request": [
    {
      "username": "uwu",
      "age": 23,
      "gender": "Female",
      "noOfFriends": 0
    }
  ]
}
```

Response

If the user id mentioned in url is invalid, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid UserId"
}
```

Response

`"/acceptFriend/{id}":`

POST method – accept friend request from the id in the url and return a response with the username as follows with status code 200. The id mentioned should be checked if the user is present in the user's request list sent in the request body.

```
{
  .... "uid": 2
}
```

Request

```
{
  "status": "Friend Request Accepted - uwu"
}
```

Response

If the id mentioned in the request body is invalid, a response as follows with status code 404 should be returned.

```
{
  "error": "Invalid to_UserID"
}
```

Response

If the id mentioned in the url does not present in the request list, a response as follows with status code 404 should be returned.

```
{
  "error": "Invalid from_UserID"
}
```

Response

If both id represent valid user, but the user id in url hasn't sent any request to the user sent in request body. then the following response with status code 404 should be returned.

```
{
  "error": "Friend Requests does not contain this UserID"
}
```

Response

"/friendList":

GET method - gets the list of all friends of the logged in user in the response , with status code 200.

```
{
  "friendList": [
    {
      "username": "uwu",
      "age": 23,
      "gender": "Female",
      "noOfFriends": 1
    }
  ]
}
```

Response

If the user id mentioned in url is invalid, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid UserId"
}
```

Response

"/deleteRequest/{id}":

PUT method - delete the request from the user of id in url and return response as follows , with status code 200.

```
{
  "status": "Friend Request Deleted - kik"
}
```

Response

If the user is not present in the request list, then the following response with status code 404 should be returned.

```
{
  "error": "Friend Requests does not contain this UserID"
}
```

Response

If the id mentioned in the request body is invalid, a response as follows with status code 404 should be returned.

```
{
  "error": "Invalid to_UserID"
}
```

Response

If the id mentioned in the url does not present in the request list, a response as follows with status code 404 should be returned.

```
{
  "error": "Invalid from_UserID"
}
```

Response

"/deleteFriend/{id}":

PUT method - delete the friend of id in url and return response as follows , with status code 200. The respective users should be removed from friendlists of both users.


```
{
  "status": "Friend Deleted - uwu"
}
```

Response

If the user isn't on the friend list, then a response as follows with status code 404 should be returned, then the following response with status code 404 should be returned.

```
{
  "error": "Friendlist does not contain this UserID"
}
```

Response

If the user id mentioned in url or request body is invalid, a response as follows with status code 400 should be returned.

```
{
  "error": "Invalid UserId"
}
```

Response

Note : The id fed doesn't represent any user that is created is mentioned as invalid user.

To run the application:

- Open terminal, go to [kickoffs-springboot-socialmediaapi](#) folder.
- Type as “mvn clean install” or right click on the project inside SpringToolSuite IDE and select “Run as Springboot application” from the dropdown or open in IntelliJ to directly run the Test file

To test the application:

- Open terminal, go to [kickoffs-springboot-socialmediaapi](#) folder.
- Type as “**mvn clean test**” or right click on the project inside SpringToolSuite IDE and select “Run as Junit Test” from the dropdown open in IntelliJ to directly run the Test file

If the testcase fails read the failure message. Check the application for syntax error and debug before you click submit.

Click **Submit** to complete the test