

# Web API Design with SpringBoot Week 1 Coding Assignment

**Points possible:** 70

Category	Criteria	% of Grade
<b>Functionality</b>	Does the code work?	25
<b>Organization</b>	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
<b>Creativity</b>	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
<b>Completeness</b>	All requirements of the assignment are complete.	25

**Instructions:** In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your Java project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

## Coding Steps:

Follow the tutorial in the homework section to build an API. Paste screenshots of your code and your postman requests and responses to show the API works. Push your project to GitHub and paste the link below.

## Screenshots of Code:

```

1 package com.promineotech.socialMediaApi;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.context.annotation.ComponentScan;
5 import org.springframework.context.annotation.Configuration;
6 import org.springframework.context.annotation.EnableWebMvc;
7 import org.springframework.web.bind.annotation.RequestMapping;
8 import org.springframework.web.bind.annotation.RequestMethod;
9 import org.springframework.web.bind.annotation.RestController;
10
11 @Configuration
12 @EnableWebMvc
13 @ComponentScan("com.promineotech.socialMediaApi")
14 @RestController
15 public class App {
16
17     public static void main( String[] args ) {
18
19         System.out.println("In main");
20         SpringApplication.run(App.class, args);
21     }
22 }

```

```

1 package com.promineotech.socialMediaApi.repository;
2
3 import org.springframework.data.repository.CrudRepository;
4
5 public interface PostRepository extends CrudRepository<Post, Long> {
6
7 }

```

```

1 package com.promineotech.socialMediaApi.repository;
2
3 import org.springframework.data.repository.CrudRepository;
4
5 public interface UserRepository extends CrudRepository<User, Long> {
6
7     User findByUsername(String username);
8
9 }
10
11
12
13
14
15
16
17
18
19
20
21
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36
37
38
39

```

```

1 package com.promineotech.socialMediaApi.controller;
2
3 import org.springframework.beans.factory.annotation.Autowired;
4 import org.springframework.http.HttpStatus;
5 import org.springframework.http.ResponseEntity;
6 import org.springframework.web.bind.annotation.PathVariable;
7 import org.springframework.web.bind.annotation.RequestBody;
8 import org.springframework.web.bind.annotation.RequestMapping;
9 import org.springframework.web.bind.annotation.RequestMethod;
10 import org.springframework.web.bind.annotation.RestController;
11
12 import com.promineotech.socialMediaApi.entity.Comment;
13 import com.promineotech.socialMediaApi.service.CommentService;
14
15 @RestController
16 @RequestMapping("/users/{userId}/posts/{postId}/comments")
17 public class CommentController {
18
19     @Autowired
20     private CommentService service;
21
22     // Post a comment
23     @RequestMapping(method=RequestMethod.POST)
24     public ResponseEntity<Object> createComment(@RequestBody Comment comment, @PathVariable Long userId, @PathVariable Long postId) {
25
26         try {
27             return new ResponseEntity<Object>(service.createComment(comment, userId, postId), HttpStatus.OK);
28         } catch (Exception e) {
29             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
30         }
31     }
32
33     // Delete a comment
34     @RequestMapping(value="/{commentId}", method=RequestMethod.DELETE)
35     public ResponseEntity<Object> deleteComment(@PathVariable Long commentId) {
36
37         service.deleteComment(commentId);
38         return new ResponseEntity<Object>("Deleted comment with id:" + commentId, HttpStatus.OK);
39     }

```

```

1 package com.promineotech.socialMediaApi.service;
2
3 import java.util.Date;
4
5 import org.springframework.beans.factory.annotation.Autowired;
6 import org.springframework.stereotype.Service;
7
8 import com.promineotech.socialMediaApi.entity.Comment;
9 import com.promineotech.socialMediaApi.entity.Post;
10 import com.promineotech.socialMediaApi.entity.User;
11 import com.promineotech.socialMediaApi.repository.CommentRepository;
12 import com.promineotech.socialMediaApi.repository.PostRepository;
13 import com.promineotech.socialMediaApi.repository.UserRepository;
14
15 @Service
16 public class CommentService {
17
18     @Autowired
19     private CommentRepository repo;
20
21     @Autowired
22     private PostRepository postRepo;
23
24     @Autowired
25     private UserRepository userRepo;
26
27     public Comment createComment(Comment comment, Long userId, Long postId) throws Exception {
28
29         User user = userRepo.findOne(userId);
30         Post post = postRepo.findOne(postId);
31         if (user == null || post == null) {
32             throw new Exception("User or Post does not exist.");
33         }
34         comment.setDate(new Date());
35         comment.setUser(user);
36         comment.setPost(post);
37         return repo.save(comment);
38     }
39
40     public void deleteComment(Long commentId) {
41         repo.delete(commentId);
42     }
43
44 }

```

```

1 package com.promineotech.socialMediaApi.controller;
2
3④ import org.springframework.beans.factory.annotation.Autowired;
4
5 @RestController
6 @RequestMapping("/users/{userId}/posts")
7 public class PostController {
8
9④     @Autowired
10    private PostService service;
11
12    // Get all posts by userId
13    @RequestMapping(value="/{userId}/posts", method=RequestMethod.GET)
14    public ResponseEntity<Object> getPosts(@PathVariable Long userId) {
15        return new ResponseEntity<Object>(service.getAllUserPosts(userId), HttpStatus.OK);
16    }
17
18    // Get one post by postId
19    @RequestMapping(value="/{postId}", method=RequestMethod.GET)
20    public ResponseEntity<Object> getPost(@PathVariable Long postId) {
21        return new ResponseEntity<Object>(service.getUserPost(postId), HttpStatus.OK);
22    }
23
24    // Update a post by postId
25    @RequestMapping(value="/{postId}", method=RequestMethod.PUT)
26    public ResponseEntity<Object> updatePost(@RequestBody Post post, @PathVariable Long postId) {
27        try {
28            return new ResponseEntity<Object>(service.updatePost(post,postId), HttpStatus.OK);
29        } catch (Exception e) {
30            return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
31        }
32    }
33
34    // Create a post
35    @RequestMapping(method=RequestMethod.POST)
36    public ResponseEntity<Object> createPost(@RequestBody Post post, @PathVariable Long userId) {
37        try {
38            return new ResponseEntity<Object>(service.createPost(post,userId), HttpStatus.OK);
39        } catch (Exception e) {
40            return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
41        }
42    }
43
44    // Delete a post
45    @RequestMapping(value="/{postId}", method=RequestMethod.DELETE)
46    public ResponseEntity<Object> deletePost(@PathVariable Long postId) throws Exception {
47        service.deletePost(postId);
48        return new ResponseEntity<Object>("Deleted post with id:" + postId, HttpStatus.OK);
49    }
50
51 }
52
53 }
54
55 }
56
57 }
58
59 }
60
61 }
62 }
```

\*Following.java PostService.java UserService.java

```

1 package com.promineotech.socialMediaApi.service;
2
3④ import java.util.Date;
4
5 import org.springframework.beans.factory.annotation.Autowired;
6 import org.springframework.stereotype.Service;
7
8 import com.promineotech.socialMediaApi.entity.Post;
9 import com.promineotech.socialMediaApi.entity.User;
10 import com.promineotech.socialMediaApi.repository.PostRepository;
11 import com.promineotech.socialMediaApi.repository.UserRepository;
12
13 @Service
14 public class PostService {
15
16④     @Autowired
17     private PostRepository repo;
18
19④     @Autowired
20     private UserRepository userRepo;
21
22    // Find ALL posts
23    @Public Iterable<Post> getAllPosts() {
24        return repo.findAll();
25    }
26
27    //Find ONE Post
28    @Public Post getPost(Long id) {
29        return repo.findOne(id);
30    }
31
32    //Find ALL of an Individual's posts
33    @Public Iterable<Post> getAllUserPosts(Long id) {
34        return userRepo.findOne(id).getPosts();
35    }
36
37    //Find ONE of an Individual's posts
38    @Public Post getUserPost(Long postId) {
39        return repo.findOne(postId);
40    }
41
42    // Update a Post
43    @Public Post updatePost(Post post, Long id) throws Exception {
44        Post foundPost = repo.findOne(id);
45        if (foundPost == null) {
46            throw new Exception("Post not found.");
47        }
48        foundPost.setContent(post.getContent());
49        return repo.save(foundPost);
50    }
51
52    // Create a Post
53    @Public Post createPost(Post post, Long userId) throws Exception {
54        User user = userRepo.findOne(userId);
55        if (user == null) {
56            throw new Exception("User not found.");
57        }
58        post.setDate(new Date());
59        post.setUser(user);
60        return repo.save(post);
61    }
62
63    // Delete a post
64    @Public void deletePost(Long postId) throws Exception {
65        Post foundPost = repo.findOne(postId);
66        if (foundPost != null) {
67            repo.delete(foundPost);
68        } else {
69            throw new Exception("Post not deleted!!!");
70        }
71    }
72 }
```

\*Following.java PostService.java UserService.java Post.java

```

1 package com.promineotech.socialMediaApi.entity;
2
3④ import java.util.Date;
4 import java.util.Set;
5
6 import javax.persistence.Entity;
7 import javax.persistence.GeneratedValue;
8 import javax.persistence.GenerationType;
9 import javax.persistence.Id;
10 import javax.persistence.JoinColumn;
11 import javax.persistence.ManyToOne;
12 import javax.persistence.OneToMany;
13
14 @Entity
15 public class Post {
16
17     private Long id;
18     private String content;
19     private Date date;
20     private User user;
21     private Set<Comment> comments;
22
23④     @Id
24     @GeneratedValue(strategy = GenerationType.AUTO)
25     public Long getId() {
26         return id;
27     }
28
29④     public void setId(Long id) {
30         this.id = id;
31     }
32
33④     public String getContent() {
34         return content;
35     }
36
37④     public void setContent(String content) {
38         this.content = content;
39     }
40
41     public Date getDate() {
42         return date;
43     }
44
45④     public void setDate(Date date) {
46         this.date = date;
47     }
48
49④     @ManyToOne
50     @JoinColumn(name = "userId")
51     public User getUser() {
52         return user;
53     }
54
55④     public void setUser(User user) {
56         this.user = user;
57     }
58
59④     @OneToMany(mappedBy = "post")
60     public Set<Comment> getComments() {
61         return comments;
62     }
63
64④     public void setComments(Set<Comment> comments) {
65         this.comments = comments;
66     }
67
68 }
```

```

1 package com.promineotech.socialMediaApi.controller;
2
3 import java.nio.file.Files;
4 import java.nio.file.Path;
5 import java.nio.file.Paths;
6
7 import org.springframework.beans.factory.annotation.Autowired;
8 import org.springframework.http.HttpStatus;
9 import org.springframework.http.ResponseEntity;
10 import org.springframework.web.bind.annotation.PathVariable;
11 import org.springframework.web.bind.annotation.PostMapping;
12 import org.springframework.web.bind.annotation.RequestBody;
13 import org.springframework.web.bind.annotation.RequestMapping;
14 import org.springframework.web.bind.annotation.RequestMethod;
15 import org.springframework.web.bind.annotation.RequestParam;
16 import org.springframework.web.bind.annotation.RestController;
17 import org.springframework.web.multipart.MultipartFile;
18
19 import com.promineotech.socialMediaApi.entity.User;
20 import com.promineotech.socialMediaApi.service.UserService;
21
22 @RestController
23 @RequestMapping("/users")
24 public class UserController {
25
26     private static String UPLOADED_FOLDER = "./pictures/";
27
28     @Autowired
29     private UserService service;
30
31     // Show all users
32     @RequestMapping(method = RequestMethod.GET)
33     public ResponseEntity<Object> getAllUsers() {
34         try {
35             return new ResponseEntity<Object>(service.getAllUsers(), HttpStatus.OK);
36         } catch (Exception e) {
37             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
38         }
39     }
40
41     // Register or Create a user
42     @RequestMapping(value = "/register", method = RequestMethod.POST)
43     public ResponseEntity<Object> register(@RequestBody User user) {
44         return new ResponseEntity<Object>(service.createUser(user), HttpStatus.CREATED);
45     }
46
47     // Delete a user
48     @RequestMapping(value = "/{userId}", method = RequestMethod.DELETE)
49     public ResponseEntity<Object> deletedUser(@PathVariable Long userId) throws Exception {
50         service.deleteUserId();
51         return new ResponseEntity<Object>("Deleted user with id:" + userId, HttpStatus.OK);
52     }
53
54     // Allow a user to login
55     @RequestMapping(value = "/login", method = RequestMethod.POST)
56     public ResponseEntity<Object> login(@RequestBody User user) {
57         try {
58             return new ResponseEntity<Object>(service.login(user), HttpStatus.OK);
59         } catch (Exception e) {
60             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
61         }
62     }
63
64     // Get all followed users
65     @RequestMapping(value = "/{id}/follows", method = RequestMethod.GET)
66     public ResponseEntity<Object> showFollowedUsers(@PathVariable Long id) {
67         try {
68             return new ResponseEntity<Object>(service.getFollowedUsers(id), HttpStatus.CREATED);
69         } catch (Exception e) {
70             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
71         }
72     }
73
74     // Allow a userId to follow another user, followId
75     @RequestMapping(value = "/{id}/follows/{followId}", method = RequestMethod.POST)
76     public ResponseEntity<Object> follow(@PathVariable Long id, @PathVariable Long followId) {
77         try {
78             return new ResponseEntity<Object>(service.follow(id, followId), HttpStatus.CREATED);
79         } catch (Exception e) {
80             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.BAD_REQUEST);
81         }
82     }
83
84     // Add a profile picture for a user
85     @RequestMapping(value = "/{id}/profilePicture", method = RequestMethod.POST)
86     public ResponseEntity<Object> singleFileUpload(@PathVariable Long id, @RequestParam("file") MultipartFile file) {
87         if (file.isEmpty()) {
88             return new ResponseEntity<Object>("Please upload a file.", HttpStatus.BAD_REQUEST);
89         }
90         try {
91             String url = UPLOADED_FOLDER + file.getOriginalFilename();
92             byte[] bytes = file.getBytes();
93             Path path = Paths.get(url);
94             Files.write(path, bytes);
95             return new ResponseEntity<Object>(service.updateProfilePicture(id, url), HttpStatus.CREATED);
96         } catch (Exception e) {
97             return new ResponseEntity<Object>(e.getMessage(), HttpStatus.INTERNAL_SERVER_ERROR);
98         }
99     }
100 }
101

```

```

1 *Following.java | J UserService.java X
2
3 package com.promineotech.socialMediaApi.service;
4
5 import org.springframework.beans.factory.annotation.Autowired;
6 import org.springframework.stereotype.Service;
7
8 import com.promineotech.socialMediaApi.entity.User;
9 import com.promineotech.socialMediaApi.repository.UserRepository;
10 import com.promineotech.socialMediaApi.view.Following;
11
12 @Service
13 public class UserService {
14
15     @Autowired
16     private UserRepository repo;
17
18     // Register or Create user
19     public User createUser(User user) {
20         return repo.save(user);
21     }
22
23     // Delete a user
24     public void deleteUser(Long userId) throws Exception {
25         User foundUser = repo.findOne(userId);
26         if (foundUser != null) {
27             repo.delete(foundUser);
28         } else {
29             throw new Exception("User not deleted!");
30         }
31
32     // Allow user to log in
33     public User login(User user) throws Exception {
34         User foundUser = repo.findByUsername(user.getUsername());
35         if (foundUser == null || !foundUser.getPassword().equals(user.getPassword())) {
36             return foundUser;
37         } else {
38             throw new Exception("Invalid username or password.");
39         }
40
41     // Find all users
42     public Iterable<User> getAllUsers() {
43         return repo.findAll();
44     }
45
46     // Allow users to follow other users
47     public Following follow(Long userId, Long followId) throws Exception {
48         User user = repo.findOne(userId);
49         User follow = repo.findOne(followId);
50         if (user == null || follow == null) {
51             throw new Exception("User does not exist.");
52         }
53         user.getFollowing().add(follow);
54         repo.save(user);
55         return new Following(user);
56     }
57
58     // Get a list of followed users for a given user
59     public Following getFollowedUsers(Long userId) throws Exception {
60         User user = repo.findOne(userId);
61         if (user == null) {
62             throw new Exception("User does not exist.");
63         }
64         return new Following(user);
65     }
66
67     // Update a user's profile picture
68     public User updateProfilePicture(Long userId, String url) throws Exception {
69         User user = repo.findOne(userId);
70         if (user == null) {
71             throw new Exception("User does not exist.");
72         }
73         user.setProfilePictureUrl(url);
74         return repo.save(user);
75     }
76
77

```

```

1 *Following.java | PostService.java | UserService.java | Us
2
3 package com.promineotech.socialMediaApi.entity;
4
5 import java.util.Set;
6
7 import javax.persistence.CascadeType;
8 import javax.persistence.Entity;
9 import javax.persistence.GeneratedValue;
10 import javax.persistence.GenerationType;
11 import javax.persistence.Id;
12 import javax.persistence.JoinColumn;
13 import javax.persistence.ManyToOne;
14 import javax.persistence.OneToOne;
15 import com.fasterxml.jackson.annotation.JsonIgnore;
16 import com.fasterxml.jackson.annotation.JsonProperty;
17
18 @Entity
19 public class User {
20
21     private Long id;
22     private String username;
23     private String profilePictureUrl;
24
25     @JsonIgnore
26     private Set<User> following;
27
28     private String password;
29
30     @JsonIgnore
31     private Set<Post> posts;
32
33     @JsonIgnore
34     private Set<Comment> comments;
35
36     @GeneratedValue(strategy = GenerationType.AUTO)
37     public Long getId() {
38         return id;
39     }
40
41     public void setId(Long id) {
42         this.id = id;
43     }
44
45     public String getUsername() {
46         return username;
47     }
48
49     public void setUsername(String username) {
50         this.username = username;
51     }
52
53     @JsonIgnore
54     public String getPassword() {
55         return password;
56     }
57
58     @JsonProperty
59     public void setPassword(String password) {
60         this.password = password;
61     }
62
63     @ManyToOne(mappedBy = "user")
64     public Set<Post> getPosts() {
65         return posts;
66     }
67
68     public void setPosts(Set<Post> posts) {
69         this.posts = posts;
70     }
71
72     @ManyToOne(mappedBy = "user")
73     public Set<Comment> getComments() {
74         return comments;
75     }
76
77     public void setComments(Set<Comment> comments) {
78         this.comments = comments;
79     }
80
81     @ManyToMany(cascade = CascadeType.ALL)
82     @JoinTable(name = "following",
83     joinColumns = @JoinColumn(name = "userId", referencedColumnName = "id"),
84     inverseJoinColumns = @JoinColumn(name = "followingId", referencedColumnName = "id"))
85     public Set<User> getFollowing() {
86         return following;
87     }
88
89     public void setFollowing(Set<User> following) {
90         this.following = following;
91     }
92
93     public String getProfilePictureUrl() {
94         return profilePictureUrl;
95     }
96
97     public void setProfilePictureUrl(String profilePictureUrl) {
98         this.profilePictureUrl = profilePictureUrl;
99     }
100 }
101

```

```

1 package com.promineotech.socialMediaApi.view;
2
3 import java.util.Set;
4
5 public class Following {
6
7     private Set<User> following;
8
9     private Set<User> getFollowing() {
10
11         public Following(User user) {
12             following = user.getFollowing();
13         }
14
15         public Set<User> getFollowing() {
16             return following;
17         }
18
19         public void setFollowing(Set<User> following) {
20             this.following = following;
21         }
22     }
23 }

```

## Screenshots of Running Application:

### Register users:

The screenshot shows two separate Postman requests for user registration. Both requests are POST methods to `http://localhost:8080/users/register`.

**Request 1 (Left):**

```
POST http://localhost:8080/users/register
Body (JSON)
{
  "username": "Lisa",
  "password": "98765"
}
```

**Request 2 (Right):**

```
POST http://localhost:8080/users/register
Body (JSON)
{
  "username": "Sally",
  "password": "43210"
}
```

Both requests return a response body in JSON format:

```
Pretty
{
  "id": 1,
  "username": "Lisa",
  "profilePictureUrl": null
}
5
```

```
Pretty
{
  "id": 2,
  "username": "Sally",
  "profilePictureUrl": null
}
5
```

### Show users:

The screenshot shows a GET request to `http://localhost:8080/users`. The response body contains a list of users in JSON format:

```
Pretty
[
  {
    "id": 1,
    "username": "Lisa",
    "profilePictureUrl": null
  },
  {
    "id": 2,
    "username": "Sally",
    "profilePictureUrl": null
  }
]
12
```

### Login user:

The screenshot shows a POST request to `http://localhost:8080/users/login`. The response body contains a user object in JSON format:

```
Pretty
{
  "id": 1,
  "username": "Lisa",
  "profilePictureUrl": null
}
5
```

### Show Who User 1 is following:

The screenshot shows a GET request to `http://localhost:8080/users/1/follows`. The response body is empty:

```
Pretty
{
  "following": []
}
3
```

### Make User 1 follow User 2:

The screenshot shows a POST request to `http://localhost:8080/users/1/follows/2`. The response body contains a user object in JSON format:

```
Pretty
{
  "following": [
    {
      "id": 2,
      "username": "Sally",
      "profilePictureUrl": null
    }
  ]
}
9
```

**Show Who User 1 is following NOW:**

http://localhost:8080/users/1/follows

GET http://localhost:8080/users/1/follows

Params Auth Headers (8) Body Pre-req. Tests Settings

raw JSON

```
1 //users/1
2
3
4
5
6
7
8
9
```

Body Cookies Headers (4) Test Results

Pretty Raw Preview Visualize JSON

```
1
2
3
4
5
6
7
8
9
```

"following": [  
 {  
 "id": 2,  
 "username": "Sally",  
 "profilePictureUrl": null  
 }  
]

## Add Profile picture for User 1:

### Add User 1 first post:

```
http://localhost:8080/users/l/posts

POST http://localhost:8080/users/l/posts
Params Auth Headers (8) Body Pre-req. Tests Settings
raw JSON
1 "content": "Lisa's first post"
2
3

Body Cookies Headers (4) Test Results
Pretty Raw Preview Visualize JSON ↻
1
2
3
4
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7
8
9
10
11
12
13
14
15
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17
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20
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```

**Add User 2 first post:**

```
http://localhost:8080/users/2/posts

POST http://localhost:8080/users/2/posts

Params Auth Headers (8) Body Pre-req. Tests Settings

raw JSON

1 ...
2 ... "content" : "Sally's first post"
3 ...

Body Cookies Headers (4) Test Results

Pretty Raw Preview Visualize JSON ⚙

1 ...
2 ... "id": 2,
3 ... "content": "Sally's first post",
4 ... "date": 1612037988465,
5 ... "user": {
6 ...   "id": 2,
7 ...   "username": "Sally",
8 ...   "profilePictureUrl": null
9 ... },
10 ...
11 ... "comments": null
```

### Add User 1 second post:

```
http://localhost:8080/users/l/posts

POST http://localhost:8080/users/l/posts

Params Auth Headers (8) Body Pre-req. Tests Settings
raw JSON

1 (JSON)
2 "content": "Lisa's second post"
3 (Text)

Body Cookies Headers (4) Test Results
Pretty Raw Preview Visualize JSON

1 (JSON)
2 {
3   "id": 3,
4   "content": "Lisa's second post",
5   "date": "1612038005796",
6   "user": {
7     "id": 1,
8     "username": "Lisa",
9     "profilePictureUrl": "./pictures/IMG_1339.HEIC"
10   },
11   "comments": null
12 }


```

**Add User 2 second post:**

```
http://localhost:8080/users/2/posts

POST http://localhost:8080/users/2/posts

Params Auth Headers (8) Body Pre-req. Tests Settings

raw JSON

1
2 ... "content": "Sally's second post"
3

Body Cookies Headers (4) Test Results

Pretty Raw Preview Visualize JSON ↻

1
2 ...
3 ... "id": 4,
4 ... "content": "Sally's second post",
5 ... "date": 1612038825024,
6 ... "user": {
7 ...   "id": 2,
8 ...   "username": "Sally",
9 ...   "profilePictureUrl": "null"
10 ...
11 }, "comments": null
```

## Show User 2's posts:

<http://localhost:8080/users/2/posts>

```

1 {
2   "id": 2,
3   "content": "Sally's first post",
4   "date": 1612037988000,
5   "user": {
6     "id": 2,
7     "username": "Sally",
8     "profilePictureUrl": null
9   },
10  "comments": []
11 },
12 },
13 {
14   "id": 4,
15   "content": "Sally's second post",
16   "date": 1612038025000,
17   "user": {
18     "id": 2,
19     "username": "Sally",
20     "profilePictureUrl": null
21   },
22   "comments": []
23 }
24 ]

```

## Show User 1's posts:

<http://localhost:8080/users/1/posts>

```

1 [
2   {
3     "id": 1,
4     "content": "Lisa's first post",
5     "date": 1612037966000,
6     "user": {
7       "id": 1,
8       "username": "Lisa",
9       "profilePictureUrl": "./pictures/IMG_1339.HEIC"
10    },
11    "comments": []
12  },
13  {
14    "id": 3,
15    "content": "Lisa's second post",
16    "date": 1612038006000,
17    "user": {
18      "id": 1,
19      "username": "Lisa",
20      "profilePictureUrl": "./pictures/IMG_1339.HEIC"
21    },
22    "comments": []
23  }
24 ]

```

## Update User 1's first post (postId #1):

<http://localhost:8080/users/1/posts/1>

```

PUT http://localhost:8080/users/1/posts/1
Params Authorization Headers (8) Body Pre-request Script Tests Settings
none form-data x-www-form-urlencoded raw binary G
1 {
2   "content": "Lisa's updated first post"
3 }

```

Body Cookies Headers (4) Test Results

Pretty Raw Preview Visualize JSON

```

1 [
2   {
3     "id": 1,
4     "content": "Lisa's updated first post",
5     "date": 1612037966000,
6     "user": {
7       "id": 1,
8       "username": "Lisa",
9       "profilePictureUrl": "./pictures/IMG_1339.HEIC"
10    },
11    "comments": []
12  }
13 ]

```

## Show User 1's posts:

<http://localhost:8080/users/1/posts/>

```

GET http://localhost:8080/users/1/posts/
Params Authorization Headers (8) Body Pre-request Script Tests Settings
none form-data x-www-form-urlencoded raw binary GraphQL JSON
1 [
2   {
3     "id": 1,
4     "content": "Lisa's updated first post",
5     "date": 1612042641000,
6     "user": {
7       "id": 1,
8       "username": "Lisa",
9       "profilePictureUrl": "./pictures/IMG_1339.HEIC"
10    },
11    "comments": []
12  }
13 ]

```

## Delete User 2's first post (postId #2):

<http://localhost:8080/users/2/posts/2>

DELETE http://localhost:8080/users/2/posts/2

Body (raw)

```

1
2 ... "content" : "Lisa's updated first post"
3

```

1 Deleted post with id:2

## Show postId #2 after DELETE:

<http://localhost:8080/users/2/posts/2>

GET http://localhost:8080/users/2/posts/2

Body (raw)

```

1 ... "content" : "Lisa's updated first post"
2
3

```

1

## Get User 2's posts:

http://localhost:8080/users/2/posts

GET http://localhost:8080/users/2/posts

Body (raw)

```

1 ... "content" : "Lisa's updated first post"
2
3

```

1 [ { "id": 4, "content": "Sally's second post", "date": 16120388025000, "user": { "id": 2, "username": "Sally", "profilePictureUrl": null } }, "comments": [] ]

## Add a User 2 Comment to Post #1:

http://localhost:8080/users/2/posts/1/comments

POST http://localhost:8080/users/2/posts/1/comments

Body (raw)

```

1 ... "content" : "Sally's first comment"
2
3

```

1 [ { "id": 1, "content": "Sally's first comment", "date": 16120388279000, "user": { "id": 2, "username": "Sally", "profilePictureUrl": null } } ]

## Get User 1's posts — notice comment:

http://localhost:8080/users/1/posts

GET http://localhost:8080/users/1/posts

Body (raw)

```

1 ...
2
3

```

1 [ { "id": 1, "content": "Lisa's updated first post", "date": 1612037966000, "user": { "id": 1, "username": "Lisa", "profilePictureUrl": "./pictures/IMG\_1339.HEIC" }, "comments": [ { "id": 1, "content": "Sally's first comment", "date": 1612038279000, "user": { "id": 2, "username": "Sally", "profilePictureUrl": null } } ], "likes": 1 }, { "id": 3, "content": "Lisa's second post", "date": 1612038806000, "user": { "id": 1, "username": "Lisa", "profilePictureUrl": "./pictures/IMG\_1339.HEIC" }, "comments": [] } ]

## Delete Comment #1:

<http://localhost:8080/users/1/posts/1/comments/1>

DELETE http://localhost:8080/users/1/posts/1/comments/1

Body (raw)

```

1 ...
2
3

```

1 Deleted comment with id:1

## Show data in the social\_api database through MySQL:

```

mysql> select * from user;
+---+-----+-----+-----+
| id | password | profile_picture_url | username |
+---+-----+-----+-----+
| 1 | 98765 | ./pictures/IMG_1339.HEIC | Lisa |
| 2 | 43210 | NULL | Sally |
+---+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from post;
+---+-----+-----+-----+
| id | content | date | user_id |
+---+-----+-----+-----+
| 1 | Lisa's updated first post | 2021-01-30 15:19:26 | 1 |
| 3 | Lisa's second post | 2021-01-30 15:20:06 | 1 |
| 4 | Sally's second post | 2021-01-30 15:20:25 | 2 |
+---+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from comment;
Empty set (0.00 sec)

mysql> select * from following;
+-----+-----+
| user_id | following_id |
+-----+-----+
| 1 | 2 |
+-----+-----+
1 row in set (0.00 sec)

mysql> select * from user u inner join post p where u.id = p.user_id;
+---+-----+-----+-----+-----+-----+-----+
| id | password | profile_picture_url | username | id | content | date | user_id |
+---+-----+-----+-----+-----+-----+-----+
| 1 | 98765 | ./pictures/IMG_1339.HEIC | Lisa | 1 | Lisa's updated first post | 2021-01-30 15:19:26 | 1 |
| 1 | 98765 | ./pictures/IMG_1339.HEIC | Lisa | 3 | Lisa's second post | 2021-01-30 15:20:06 | 1 |
| 2 | 43210 | NULL | Sally | 4 | Sally's second post | 2021-01-30 15:20:25 | 2 |
+---+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █

```

## Show users:

## Delete User #4:

## Show users after delete:

URL to GitHub Repository: <https://github.com/sw-dev-lisa-s-nh/SpringBoot-week1.git>