

HOMework 1 REPORT

Mustafa Mercan

1901042676

1) SYSTEM REQUIREMENTS

This project is a simple social media application where you can perform various actions such as creating a new user, following another user, posting, and sending a message to another user. All of these actions take place within the test file. Therefore, we need to create multiple accounts first and then store them in an array. Afterwards, we can perform the desired actions by passing the necessary parameters to the specific methods within these objects.

2) PROBLEM SOLUTIONS APPROACH

1→ Since there will be multiple users, I collected all users in a single array in order to easily access and reach the data of users.

2→ Then, I created a design according to the relationships between the classes provided in the PDF and defined the necessary classes. I analyzed the data to be found in these classes and the necessary data to be taken from the upper class.

3→ After creating the entire structure, I decided on the methods that needed to be in these classes and created these methods.

4→ Since I did not check any error situations while creating the project, I left this part to the end and edited the methods I previously created by checking the necessary error situations. Some examples of these errors include: A user cannot follow themselves or send messages

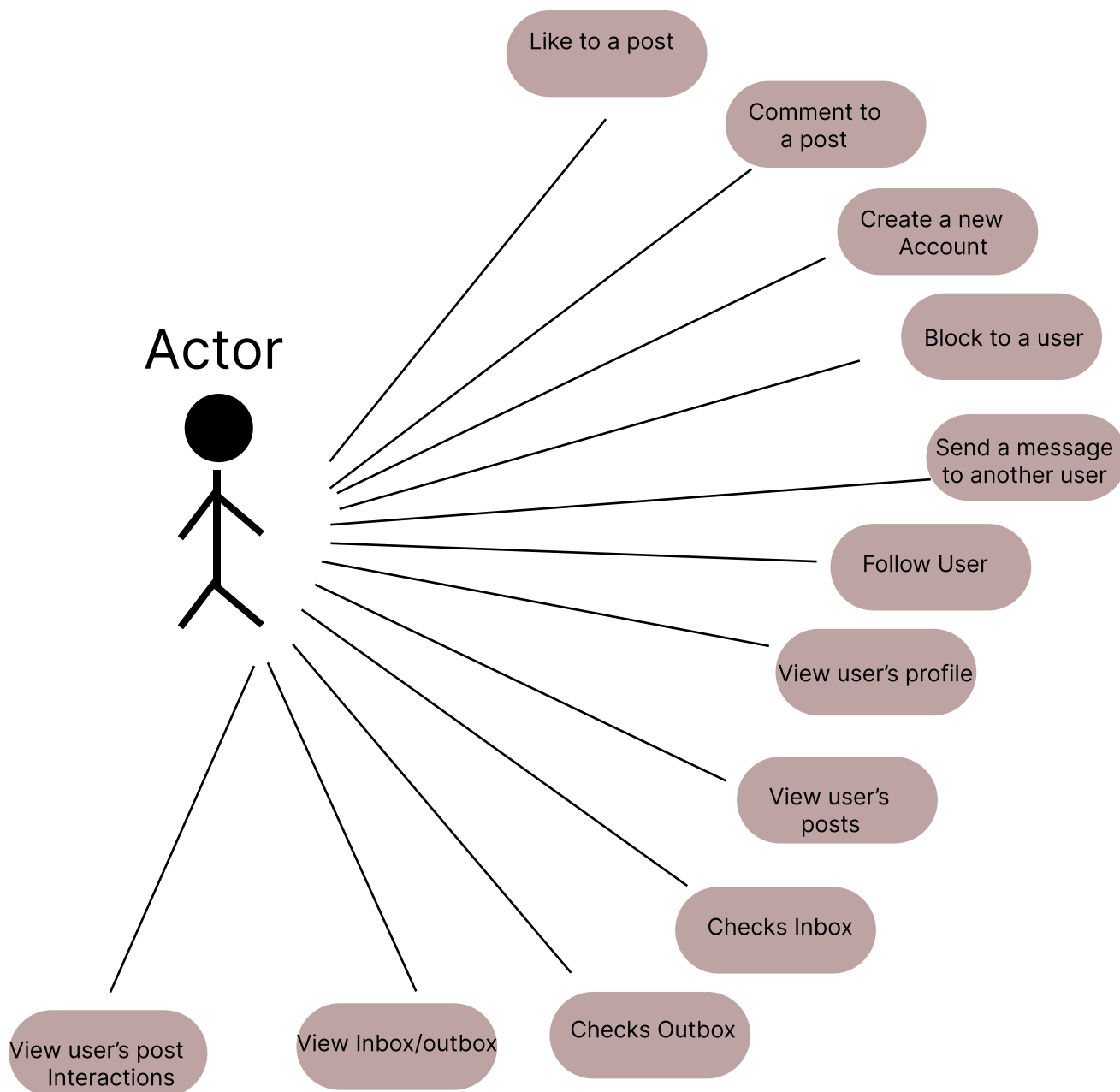
to themselves. We cannot perform any operations on a non-existent user. We cannot log into the same account multiple times, and we can give many more examples.

5→ After completing the entire project, I checked if the necessary tests were working properly.

6→ I completed the necessary tasks for Javadoc documentation.

7→ Finally, I included the bonus part in my project and completed my project.

3) USE CASE DIAGRAMS



Test Case 1 : Scenario 1

```
Account [] user_accounts = new Account[100];
// Step 1 -> Creating 3 accounts...
Account gizemsungu = new Account(0,"gizemsungu","Istanbul","11.11.2000");
Account sibelgulmez = new Account(1,"sibelgulmez","Istanbul","11.11.2000");
Account gokhankaya = new Account(2,"gokhankaya","Istanbul","11.11.2000");
// We are adding the newly created account objects to array in order.
user_accounts[0] = gizemsungu;
user_accounts[1] = sibelgulmez;
user_accounts[2] = gokhankaya;
// Step 2 -> Logging into an account (username: sibelgulmez).
// If we try to perform any operation without logging in, the program will display an error message.
// If we try to log in again while our account is already open, we will encounter an error message again.
sibelgulmez.login();
// Step 3 -> Sharing two posts...
// create_new_post take two parameter.
// 1-> post content
// 2-> post id number
sibelgulmez.create_new_post("I like Java.",0);
sibelgulmez.create_new_post("Java the coffe...",1);
//Step 4 -> Following gizemsungu and gokhankaya...
//follow_someone method take two parameter
// 1-> Accounts Array
// 2-> the username of the user we want to follow.
// If you try to follow a non-existent user, you will encounter an error message saying that the user cannot be found.
// If you try to follow yourself, you will encounter an error message saying that you cannot follow yourself.
sibelgulmez.follow_someone(user_accounts,"gizemsungu");
sibelgulmez.follow_someone(user_accounts,"gokhankaya");
// Step 5 -> Logging out from account 'sibelgulmez';
sibelgulmez.logout();
```

```
// Step 6 -> Logging into another account (username:gokhankaya)
gokhankaya.login();
// Step 7 -> Viewing sibelgulmez profile...
// view_profile take two parameter
// 1-> Accounts Array
// 2-> the username of the user we want to view profile.
// If you try to view profile a non-existent user, you will encounter an error message saying that the user cannot be found.
gokhankaya.view_profile(user_accounts,"sibelgulmez");
// Step 8 -> Viewing sibelgulmez' posts...
// view_user_posts take two parameter
// 1-> Accounts Array
// 2-> the username of the user we want to view posts.
// If you try to view user posts a non-existent user, you will encounter an error message saying that the user cannot be found.
gokhankaya.view_user_posts(user_accounts,"sibelgulmez");
//Step 9 -> Liking a post of sibelgulmez.
// view_user_posts take three parameter
// 1-> Accounts Array
// 2-> the username of the user whose post we want to like.
// 3-> the post id of the post we want to like
// If you try to like a post of non-existent user, you will encounter an error message saying that the user cannot be found.
// If you send a non-existent post Id , you will encounter an error message again.
// // If the user is already like the same post, an error message will be displayed
gokhankaya.like_a_post(user_accounts,"sibelgulmez",0);
```

```
// Step 10 -> Adding a comment on a post of sibelgulmez...
// It is take three parameter
// 1-> Accounts Array
// 2-> Post ID
// 3-> message content
// If you send a non-existent post Id , you will encounter an error message again.
gokhankaya.add_comment_post(user_accounts,0,"me too...");
// Step 11 -> following sibelgulmez and gizemsungu...
// If the user is already following the same account, an error message will be displayed
gokhankaya.follow_someone(user_accounts,"sibelgulmez");
gokhankaya.follow_someone(user_accounts,"gizemsungu");
// Step12 -> Sending a message to gizemsungu...
//It take four parameter
// 1-> Accounts Array
// 2-> Receiver user name
// 3-> Message ID
// 4-> Message content
//You cannot send a message to yourself.If you send you will take a error message.
gokhankaya.send_message(user_accounts,"gizemsungu",0,"This homework is too easy!");
```

```
// Step 13 -> Logging out from account 'gokhankaya'
gokhankaya.logout();
// Step 14 -> Logging into another account (username:gizemsungu)
gizemsungu.login();
// Step 15 -> Checking outbox...
gizemsungu.check_outbox();
// Step 16 -> Checking inbox...
gizemsungu.check_inbox();
// Step 17 -> Viewing inbox...
gizemsungu.print_inbox_messages();
// Step 18 -> Viewing sibelgulmez's profile
gizemsungu.view_profile(user_accounts,"sibelgulmez");
// Step 19 -> Viewing sibelgulmez's posts...
gizemsungu.view_user_posts(user_accounts,"sibelgulmez");
// Step 20 -> Viewing sibelgulmez's posts' interactions...
gizemsungu.get_all_interactions(user_accounts,"sibelgulmez");
// Step 21 -> Liking sibelgulmez's posts...
gizemsungu.like_a_post(user_accounts,"sibelgulmez",0);
gizemsungu.like_a_post(user_accounts,"sibelgulmez",1);
// Step 22 -> Viewing sibelgulmez's posts' interactions...
gizemsungu.get_all_interactions(user_accounts,"sibelgulmez");
```

Test Case 2 : Scenario 2

```
gizemsungu.login();|
gizemsungu.create_new_post("Post1",2);
gizemsungu.create_new_post("Post2",3);
gizemsungu.logout();

sibelgulmez.login();
sibelgulmez.view_profile(user_accounts,"gizemsungu");
sibelgulmez.like_a_post(user_accounts,"gizemsungu",2);
sibelgulmez.logout();

gokhankaya.login();
gokhankaya.view_profile(user_accounts,"gizemsungu");
gokhankaya.add_comment_post(user_accounts,3,"Nice!");
gokhankaya.send_message(user_accounts,"gizemsungu",1,"Hello");
gokhankaya.logout();

gizemsungu.login();
gizemsungu.view_profile(user_accounts,"gizemsungu");
gizemsungu.print_inbox_messages();
gizemsungu.logout();
```

Test Case 3 : Scenario 3

```
gizemsungu.login();
gizemsungu.block_someone(user_accounts,"sibelgulmez");
gizemsungu.logout();

sibelgulmez.login();
sibelgulmez.view_profile(user_accounts,"gizemsungu");
sibelgulmez.send_message(user_accounts,"gizemsungu",10,"blocked message");
```

Test Case 4 : Error Handling

```
//If the user tries to log in again without logging out, they will encounter an error message.
gizemsungu.login();
gizemsungu.login();

//User cannot send messages to themselves or follow themselves.
gizemsungu.follow_someone(user_accounts,"gizemsungu");
gizemsungu.send_message(user_accounts,"gizemsungu",6,"I cannot send a message to myself");

// An error message is displayed when an invalid username is entered.
gizemsungu.view_profile(user_accounts,"nonexistuser");
gizemsungu.follow_someone(user_accounts,"nonexistuser");
gizemsungu.send_message(user_accounts,"nonexistuser",6,"I cannot send a message to myself");

//The user cannot perform any action without logging in.
gokhankaya.follow_someone(user_accounts,"gizemsungu");
```

Outputs Of The Test Classes

TestClass1 Outputs

```
sibelgulmez logged in the system...

Post is creating...

Post is creating...

Following gizemsungu...

Following gokhankaya...

sibelgulmez logout in the system

gokhankaya logged in the system...

Viewing sibelgulmez's profile...
-----
ID: 1
Username: sibelgulmez
Location: Istanbul
Birth date: 11.11.2000
sibelgulmez is following 2 account(s) and has 0follower(s)
sibelgulmez is following: gizemsungu,gokhankaya,
sibelgulmez has 2 posts

Viewing sibelgulmez's posts...
(Post ID :0) : I like Java.
(Post ID :1) : Java the coffe...

Like was created

Post was created

Following sibelgulmez...

Following gizemsungu...

Message was sended

gokhankaya logout in the system

gizemsungu logged in the system...

Checking outbox...
There is/are 0 message(s) in the outbox

Checking inbox...
There is/are 1 message(s) in the inbox

Message ID: 0
From: gokhankaya
To: gizemsungu
Message: This homework is too easy!
```

TestClass2 Outputs

```
gizemsungu logout in the system

gizemsungu logged in the system...

Post is creating...

Post is creating...

gizemsungu logout in the system

sibelgulmez logged in the system...

Viewing gizemsungu's profile...
-----
ID: 0
Username: gizemsungu
Location: Istanbul
Birth date: 11.11.2000
gizemsungu is following 0 account(s) and has 2follower(s)
The followers of gizemsungu are: sibelgulmez,gokhankaya,
gizemsungu has 2 posts

Like was created

sibelgulmez logout in the system

gokhankaya logged in the system...

Viewing gizemsungu's profile...
-----
ID: 0
Username: gizemsungu
Location: Istanbul
Birth date: 11.11.2000
gizemsungu is following 0 account(s) and has 2follower(s)
The followers of gizemsungu are: sibelgulmez,gokhankaya,
gizemsungu has 2 posts

Post was created

Message was sended

gokhankaya logout in the system

gizemsungu logged in the system...
```

```
Viewing gizemsungu's profile...
-----
ID: 0
Username: gizemsungu
Location: Istanbul
Birth date: 11.11.2000
gizemsungu is following 0 account(s) and has 2follower(s)
The followers of gizemsungu are: sibelgulmez,gokhankaya,
gizemsungu has 2 posts

Message ID: 0
From: gokhankaya
To: gizemsungu
Message: This homework is too easy!

Message ID: 1
From: gokhankaya
To: gizemsungu
Message: Hello

gizemsungu logout in the system
```


TestClass3 Outputs

```
gizemsungu logged in the system...  
  
You blocked to sibelgulmez  
  
gizemsungu logout in the system  
  
sibelgulmez logged in the system...  
  
You have been blocked by the user.  
You have been blocked by the user.
```

Error Handling Cases' Outputs

```
gizemsungu logged in the system...  
  
This user is already logged in  
You cannot follow yourself...  
You cannot send a message yourself!  
User not found...  
User not found...  
The user cannot found...  
Please log in
```