

2023 Spring CSE222 Homework1 Report

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1. Detailed system requirements ✓
2. The Project use case diagrams (extra points) ✓
3. Problem solutions approach ✓
4. Test cases ✓
5. Running command and results ✓

1-Detailed system requirements ✓

Functional Requirements:

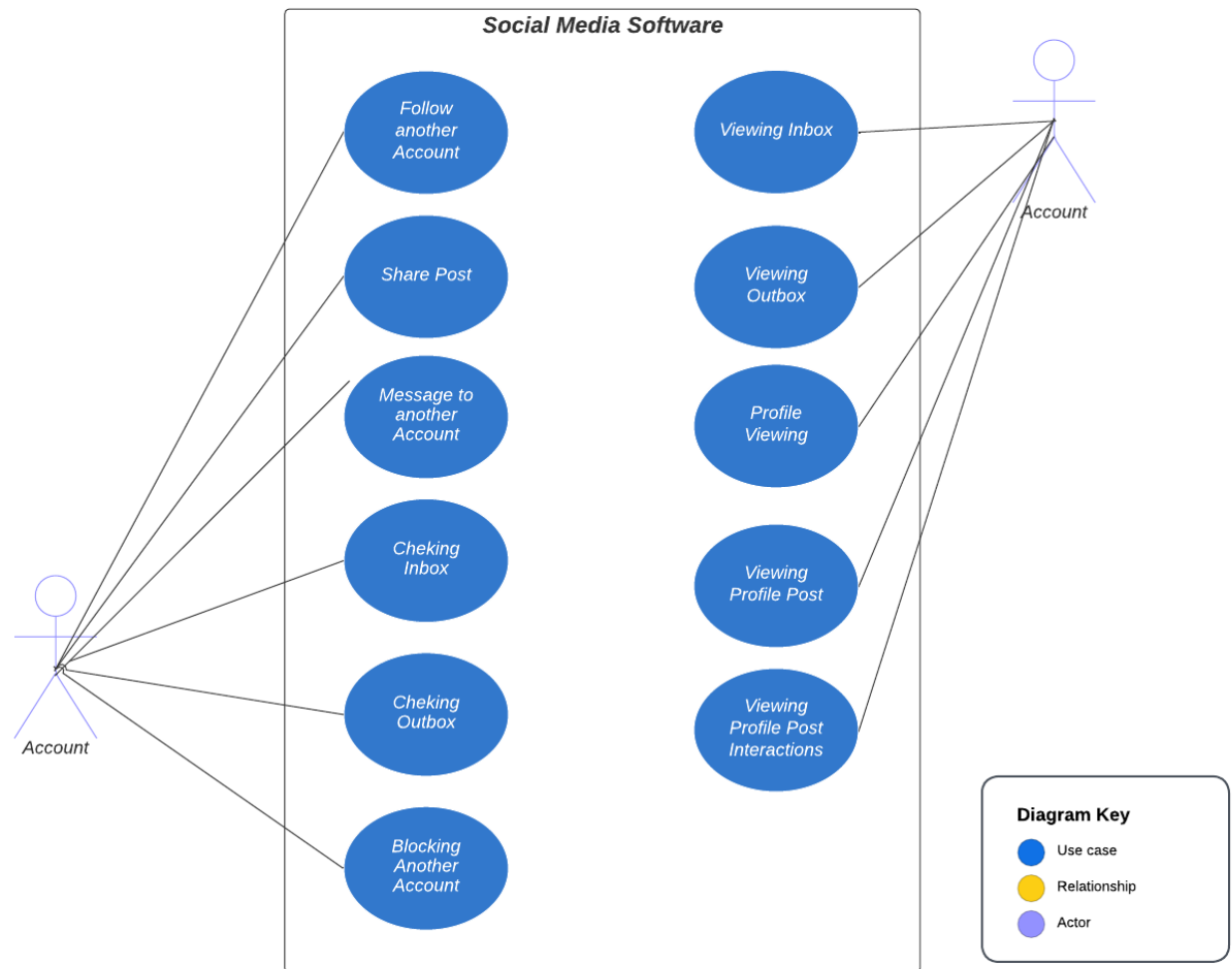
1. **Account Creation:** In this social media software users can create accounts with unique usernames. Each account must contain a profile with the user's username, date of birth, location, posts (if any), follower accounts (if any), and followed accounts (if any).
2. **Following:** In this software, users can follow other accounts.
3. **Creating Followers:** After the follow process, it is transferred to the other account as a follower.
4. **Post Sharing:** In this software, users can share posts.
5. **Interaction on Posts:** In this software, users can like and comment on posts made by other users. You don't need to be a follower for this.
6. **Messaging:** In this software, users can send messages to each other, but only if they are following each other.
7. **Checking inbox:** User can view the status of messages sent to himself herself.
8. **Checking outbox:** Users can view the status of the messages they sent.
9. **Viewing inbox messages:** The user can view incoming messages.
10. **View outbox messages:** The user can view the messages he/she sent.
11. **Profile Viewing:** Users can view other users' profiles. It doesn't need to be followed. But it must not be blocked by the profile to be viewed.

- 12. Viewing Profile Posts:** Users can view other users' posts. It doesn't need to be followed. However, it must not be blocked by the profile to be viewed. In order to be able to View Profile Posts, it must first view that profile and be on that account.
- 13. View Profile Posts Interactions:** Users can view interactions of other users' posts. It doesn't need to be followed. However, it must not be blocked by the profile to be viewed. In order to be able to View Profile Posts, it must first view that profile and be on that account.
- 14. User Blocking:** Users can block any account they want. The blocked person cannot see the profile, posts of the blocked person and also cannot message him/her.

Non-Functional Requirements:

1. The system developed using Java programming language.
2. **Security:** The software can only operate on each user's own account and cannot access other users' private account information.
3. **Usability:** The software allows users to easily process and transact easily.
4. **Performance:** The software can quickly perform the operations.
5. **Reliability:** The software must be able to operate reliably and consistently with minimal errors.

2-The Project use case diagrams (extra points) ✓



3-Problem solutions approach ✓

First, I defined the account creation process. Next, I kept the resulting accounts in a series of accounts. I added the functions of following other accounts and having follower/follower accounts for the added accounts. After users log in to their accounts, I added methods where they can view other accounts' profiles, view posts shared by other accounts, like posts, comment posts, send messages. For the account, I added the function of displaying the interaction information of the posts. For your project, I stored the data using only basic arrays. I prepared different scenarios(Scenario1,Scenario2,Scenario3) to test all functions. When I wrote code, I followed clear and legible coding standards. After completing the project, I added comments to the code.

4-Test cases and results ✓

Test Scenario 1

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ java homework1.TestClass1
SCENARIO 1

CSE222 - HW1

Step 1... Creating accounts ...
An account with username gizemsungu has been created.
An account with username sibelgulmez has been created.
An account with username gokhankaya has been created.

Step 2... Logging into an account (username: sibelgulmez)...

Step 3... Sharing two post...

Step 4...
Following gizemsungu...
Following gokhankaya...

Step 5...Logging out from account 'sibelgulmez'...

Step 6...Logging into an account (username: gokhankaya)...

Step 7...Viewing sibelgulmez's profile...
-----
User ID: 2
Username: sibelgulmez
Location: Istanbul
Birth Date: 10.03.1995
sibelgulmez is following 2 account(s) and has 0 follower(s).
The followers of sibelgulmez are: No one follows this account yet.
sibelgulmez is following: gizemsungu, gokhankaya,
```

```
Location: Istanbul
Birth Date: 10.03.1995
sibelgulmez is following 2 account(s) and has 0 follower(s).
The followers of sibelgulmez are: No one follows this account yet.
sibelgulmez is following: gizemsungu, gokhankaya,
sibelgulmez has 2 posts

Step 8...Viewing sibelgulmez's posts...
(PostID: 1) sibelgulmez: I like Java.
(PostID: 2) sibelgulmez: Java the coffee...

Step 9...Liking a post of sibelgulmez...

Step 10...Adding a comment on a post of sibelgulmez...

Step 11...
Following sibelgulmez...
Following gizemsungu...

Step 12...Sending a message to gizemsungu...

Step 13...Logging out from account 'gokhankaya'...

Step 14...Logging into an account (username: gizemsungu)...

Step 15...Checking outbox...
There is/are 0 message(s) in the outbox.

Step 16...Checking inbox...
There is/are 1 message(s) in the inbox.

Step 17...Viewing inbox...
```

Step 17...Viewing inbox...

Message ID: 1
From: gokhankaya
To: gizemsungu
Message: This homework is too easy!

Step 18...Viewing sibelgulmez's profile...

User ID: 2
Username: sibelgulmez
Location: Istanbul
Birth Date: 10.03.1995
sibelgulmez is following 2 account(s) and has 1 follower(s).
The followers of sibelgulmez are: gokhankaya,
sibelgulmez is following: gizemsungu, gokhankaya,
sibelgulmez has 2 posts

Step 19...Viewing sibelgulmez's posts...

(PostID: 1) sibelgulmez: I like Java.
(PostID: 2) sibelgulmez: Java the coffee...

Step 20...Viewing sibelgulmez's posts' interactions...

(PostID: 1) : I like Java.
The post was liked by the following account(s): gokhankaya,
The post has 1 comment(s)...
Comment 1: 'gokhankaya' said 'me too!'

(PostID: 2) : Java the coffee...
The post has no likes.
The post has no comments.

(PostID: 2) sibelgulmez: Java the coffee...

Step 20...Viewing sibelgulmez's posts' interactions...

(PostID: 1) : I like Java.
The post was liked by the following account(s): gokhankaya,
The post has 1 comment(s)...
Comment 1: 'gokhankaya' said 'me too!'

(PostID: 2) : Java the coffee...
The post has no likes.
The post has no comments.

Step 21...Liking sibelgulmez's posts...

Step 22...Viewing sibelgulmez's posts' interactions...

(PostID: 1) : I like Java.
The post was liked by the following account(s): gokhankaya, gizemsungu,
The post has 1 comment(s)...
Comment 1: 'gokhankaya' said 'me too!'

(PostID: 2) : Java the coffee...
The post was liked by the following account(s): gizemsungu,
The post has no comments.

Test Scenario 2

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ java homework1.TestClass2
SCENARIO 2

CSE222 - HW1

Step 1... Creating accounts ...
An account with username gizemsungu has been created.
An account with username sibelgulmez has been created.
An account with username gokhankaya has been created.

Step 2... Logging into an account (username: gizemsungu)...

Step 3... Sharing two post...

Step 4...Logging out from account 'gizemsungu'...

Step 5... Logging into an account (username: sibelgulmez)...

Step 6...Viewing gizemsungu's profile...
-----
User ID: 1
Username: gizemsungu
Location: Ankara
Birth Date: 01.01.1990
gizemsungu is following 0 account(s) and has 0 follower(s).
The followers of gizemsungu are: No one follows this account yet.
gizemsungu is following: This account doesn't follow anyone yet.
gizemsungu has 2 posts
```

```
-----
User ID: 1
Username: gizemsungu
Location: Ankara
Birth Date: 01.01.1990
gizemsungu is following 0 account(s) and has 0 follower(s).
The followers of gizemsungu are: No one follows this account yet.
gizemsungu is following: This account doesn't follow anyone yet.
gizemsungu has 2 posts

Step 7...Liking a post of gizemsungu...

Step 8...Logging out from account 'sibelgulmez'...

Step 9... Logging into an account (username: gokhankaya)...

Step 10...Viewing gizemsungu's profile...
-----
User ID: 1
Username: gizemsungu
Location: Ankara
Birth Date: 01.01.1990
gizemsungu is following 0 account(s) and has 0 follower(s).
The followers of gizemsungu are: No one follows this account yet.
gizemsungu is following: This account doesn't follow anyone yet.
gizemsungu has 2 posts

Step 11...Adding a comment on a post of gizemsungu...

Step 12...You must follow gizemsungu account to send message!
```

```
Step 11...Adding a comment on a post of gizemsungu...

Step 12...You must follow gizemsungu account to send message!

Step 13...Logging out from account 'gokhankaya'...

Step 14... Logging into an account (username: gizemsungu)...

Step 15...Viewing gizemsungu's profile...
-----
User ID: 1
Username: gizemsungu
Location: Ankara
Birth Date: 01.01.1990
gizemsungu is following 0 account(s) and has 0 follower(s).
The followers of gizemsungu are: No one follows this account yet.
gizemsungu is following: This account doesn't follow anyone yet.
gizemsungu has 2 posts

Step 16...Viewing gizemsungu's posts...
(PostID: 1) gizemsungu: I like Java.
(PostID: 2) gizemsungu: Java the coffee...

Step 17...Viewing gizemsungu's posts' interactions...
-----
(PostID: 1) : I like Java.
The post was liked by the following account(s): sibelgulmez,
The post has no comments.
-----
(PostID: 2) : Java the coffee...
The post has no likes.
The post has 1 comment(s)...
```

```
(PostID: 2) gizemsungu: Java the coffee...

Step 17...Viewing gizemsungu's posts' interactions...
-----
(PostID: 1) : I like Java.
The post was liked by the following account(s): sibelgulmez,
The post has no comments.
-----
(PostID: 2) : Java the coffee...
The post has no likes.
The post has 1 comment(s)...
Comment 1: 'gokhankaya' said 'Nice!'

Step 18...There is/are 0 message(s) in the inbox.

Step 19...Viewing inbox...
You don't have any messages to show in your inbox yet!
```

Test Scenario 3

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ java homework1.TestClass3
SCENARIO 3

CSE222 - HW1

Step 1... Creating accounts ...
An account with username gizemsungu has been created.
An account with username sibelgulmez has been created.
An account with username gokhankaya has been created.

Step 2... Logging into an account (username: gizemsungu)...

Step 3...Blocking sibelgulmez...

Step 4...Logging out from account 'gizemsungu'...

Step 5... Logging into an account (username: sibelgulmez)...

Step 6 try follow profile's gizemsungu...
You cannot follow this user!
You have been blocked by : gizemsungu

Step 7 try view profile's gizemsungu...
You cannot view profile this user!
You have been blocked by : gizemsungu

Step 8 try view post profile's gizemsungu...
You cannot view posts this user!
You have been blocked by : gizemsungu

Step 9 try send message gizemsungu...
You must follow gizemsungu account to send message!
```

5-Running command

```
ubuntu@ubuntu-virtual-machine:~$ cd Masaüstü
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ cd homework1
ubuntu@ubuntu-virtual-machine:~/Masaüstü/homework1$ javac *.java
ubuntu@ubuntu-virtual-machine:~/Masaüstü/homework1$ cd ..
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ java homework1.TestClass1
SCENARIO 1

CSE222 - HW1

Step 1... Creating accounts ...
An account with username gizemsungu has been created.
An account with username sibelgulmez has been created.
An account with username gokhankaya has been created.

Step 2... Logging into an account (username: sibelgulmez)...

Step 3... Sharing two post...
```

```
ubuntu@ubuntu-virtual-machine:~$ cd Masaüstü
```

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ cd homework1
```

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü/homework1$ javac *.java
```

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü/homework1$ cd ..
```

```
ubuntu@ubuntu-virtual-machine:~/Masaüstü$ java homework1.TestClass1
```