BINARY SEARCH TREE ASSIGNMENT 4

CSC2001F

Zuhayr Loonat

LNTZUH001

OOP

Classes (From least to most dependant)

- Post
- Account
- BST.Node
- BST (Binary search tree)
- TikTok

Post

The post class holds data for the type post. It is a tiktok post. This includes post title, post file and number of likes.

Account

This class holds the data for the account type. This is where the user information is stored. This includes username, user description and posts.

BST.node

This class is in the BST file and serves as a node in the binary search tree. It holds an account and left and right nodes.
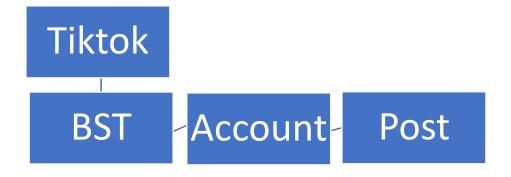
BST

This class mainly contains methods for the binary search tree such as but not limited to insert and delete.

TikTok

This is where the main class is. It contains the "Menu" and relevant functions.

Relationship

The tiktok class utilises all the classes. It uses BST to store Accounts, and accounts contain posts.

Output and Test Values

For each menu item a try catch was used for invalid inputs. The isBlank function was created to check if an entered string was blank. However after testing I found out that I didn't actually need it. So it now resides in the testing.java file.

Blank means it did not contain any alpha numeric characters ie wasn't just spaces etc
it would return the following as true (not limited to, just examples):

- "   "
- ""
- "   "

This is also my "creative part".

Try, Catch was used to validate all inputs.

For the testing I used three accounts:

zuhayr   a loser with posts: my first vid vid1.mp4
yaseen   a losers homie with posts: at the mall malvid.mp4
Hussein the goat with posts: lecture 1 lv1.mp4, lecture 2 lv2.mp4

Menu Item 1

Correct input: Incorrect input: User DNE

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 1


Get account description
Enter the account name: zuhayr
User Description: a loser
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 1


Get account description
Enter the account name: jake
Sorry, this account does not exist.
```

Menu Item 2

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 2


List Accounts
Accounts:
zuhayr
yaseen
hussein
```

Menu Item 3

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 3


Create an Account
Enter username: zuhayr
Enter a user description: a loser
Account added successfully
```

Menu Item 4

Correct input: Incorrect input: User DNE

```
Enter your choice: 2


List Accounts
Accounts:
yaseen
hussein
zuhayr



Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 4


Delete an Account
Enter user you would like to delete: zuhayr
Account deleted successfully


Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 2


List Accounts
Accounts:
yaseen
hussein
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 4


Delete an Account
Enter user you would like to delete: jake
Sorry, this account does not exist.
```

Menu Item 5 and 6

Invalid user	Valid user

```
Enter your choice: 6


Create a Post
Enter the account name: hussein
Enter Title: lecture vid 1
Enter a post file name: lv1.mp4
Post added successfully
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 6


Create a Post
Enter the account name: jake
Enter Title: pool party
Enter a post file name: pp.mp4
Sorry, this account does not exist.
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 6


Create a Post
Enter the account name: hussein
Enter Title: lecture vid 2
Enter a post file name: lv2.mp4
Post added successfully
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 5


Display User's Posts
Enter the account name: hussein
hussein's Post
-------------------------------------
Title: lecture vid 2
File Name: lv2.mp4
Likes: 97368
-------------------------------------
-------------------------------------
Title: lecture vid 1
File Name: lv1.mp4
Likes: 47709
-------------------------------------
```

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 5


Display User's Posts
Enter the account name: jake
Sorry, this account does not exist.
```

Menu Item 8

Exit and menu input

| Valid input | Invalid Input |

```
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: 8
```

```
Enter your choice: 9


Invalid input please try again.
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process it
8. Quit
Enter your choice: █
```

Git Log

```
zuhay@Zuhayr-Asus MINGW64 ~/OneDrive/My Documents/Git/Github/BST_CSC2001F (main)
$ git log | (ln=0; while read l; do echo $ln\: $l; ln=$((ln+1)); done) | (head -10; echo ...; tail -10)
0: commit c3dddd229d17e870fd8b196ccb34be6faa9e7911
1: Author: zuhayrl <zuhayr.loonat@gmail.com>
2: Date: Wed Apr 19 00:55:53 2023 +0200
3:
4: debug
5:
6: commit 6312b3e07e20353123eaf57c53cf514741359efb
7: Author: zuhayrl <zuhayr.loonat@gmail.com>
8: Date: Wed Apr 19 00:55:23 2023 +0200
9:
...
235: Author: zuhayr.py <119530173+zuhayrl@users.noreply.github.com>
236: Date: Sat Apr 15 11:17:02 2023 +0200
237:
238: Update README.md
239:
240: commit ea2a3ae0cc610551e258cf5e57b97c2acc844a7e
241: Author: zuhayr.py <119530173+zuhayrl@users.noreply.github.com>
242: Date: Sat Apr 15 11:15:44 2023 +0200
243:
244: Initial commit
```