Thabang Mokoena

MKNTHA093
JAVA(BST ASSIGNMENT 4)

REPORT

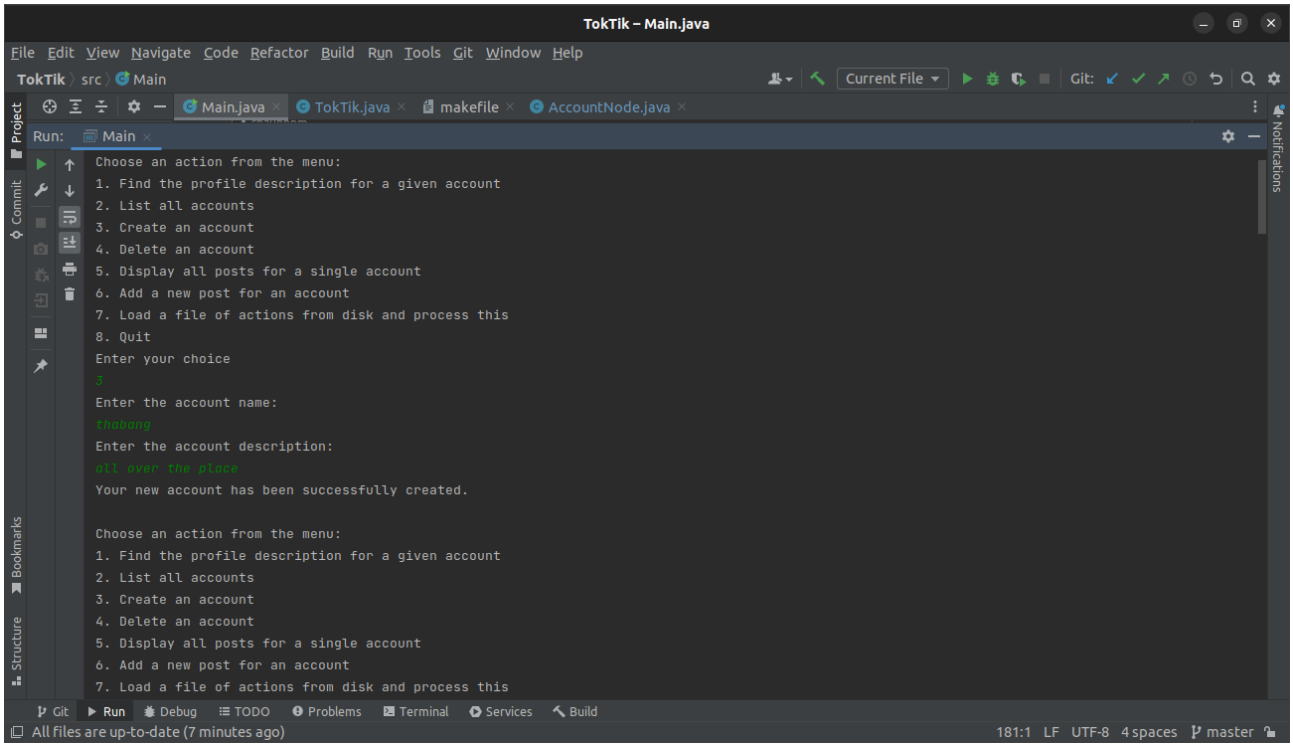
The project I worked on is an application that allows users to post videos. The main goal of the project was to create a system to manage user accounts and the videos they posted. To achieve this, I implemented an AccountNode class that stores information about each user's account, including the account name, description, and a stack of videos that the user has posted. The video object exists as an inner class inside the AccountNode class, and each video contained its name, description, and the number of likes it had received. Finally, I used a Binary Search Tree (BST) to store all the accounts.

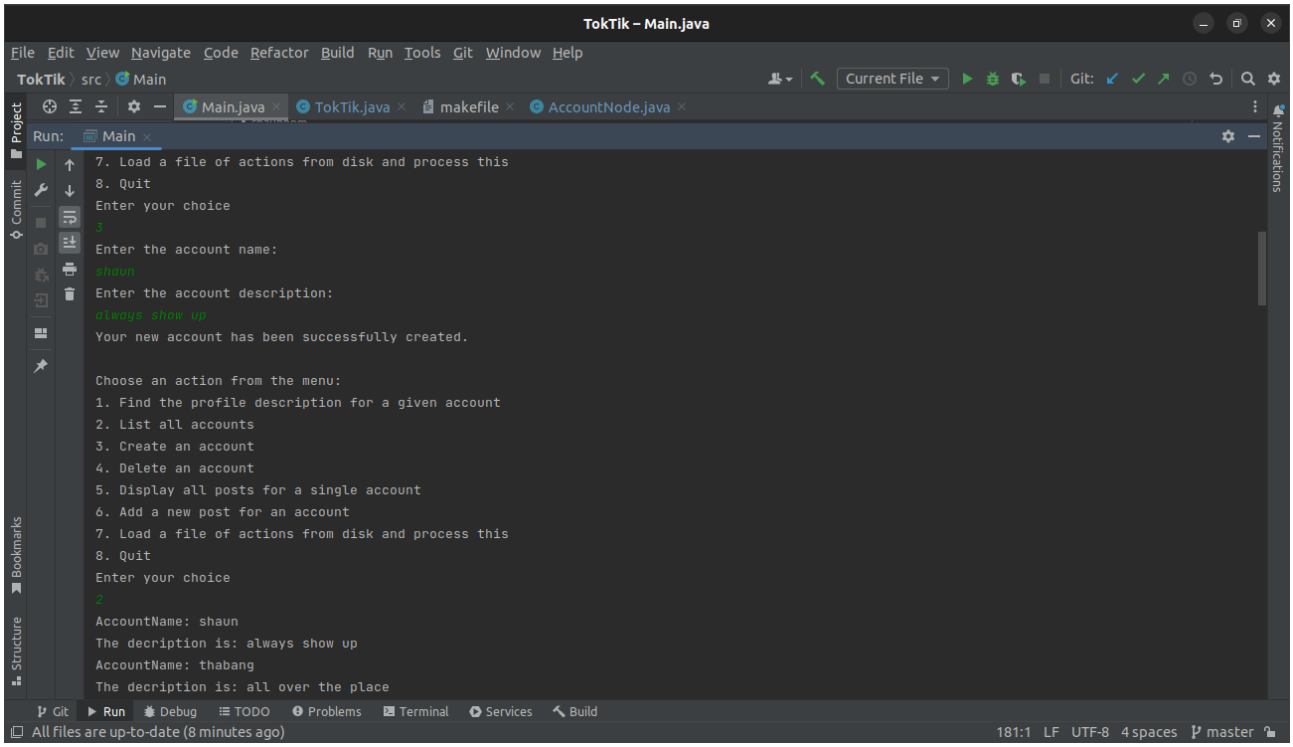
The AccountNode class was implemented with various methods to manage user accounts. For example, there were methods to create a new account, delete an existing account, search for an account by its name, and list all the accounts in the system. The video stack inside each AccountNode object was used to store all the videos that a user had posted, with the newest videos being added to the top of the stack making its easier to keep track of the most rescent posts a user had added. The dependency between the two is that a video object cannot exit without an AccountNode object but an account can exist without video objects stores in it. To view video objects stored in an AccountNode you can use the view function contained in the the AccountNode class.

The use of inner classes for the Video objects allowed for easier organization of the code and encapsulation of the data. All the data for each video was stored within the video object, making it easy to access and modify as needed. The AccountNode class could also easily access and modify the video objects stored within it, making it easy to manage the videos associated with a particular account.

Finally, the use of a Binary Search Tree (BST) to store all the AccountNode objects allowed for efficient searching and sorting of the accounts. The BST was implemented with methods to insert, delete, and search for AccountNode objects based on their account name.

In conclusion, the project was successful in creating an application to manage user accounts and their associated videos. The use of an AccountNode class that contained a stack of Video objects allowed for easy management of the videos associated with each account, while the use of a Binary Search Tree allowed for efficient searching and sorting of the accounts. Overall, the project demonstrates the importance of proper data organization and efficient algorithms in creating a functional application.


TokTik – Main.java
File Edit View Navigate Code Refactor Build Run Tools Git Window Help
TokTik src Main
Current File
Git:
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
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 this
8. Quit
Enter your choice
3
Enter the account name:
thabang
Enter the account description:
all over the place
Your new account has been successfully created.
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 this
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (7 minutes ago)
181:1 LF UTF-8 4 spaces master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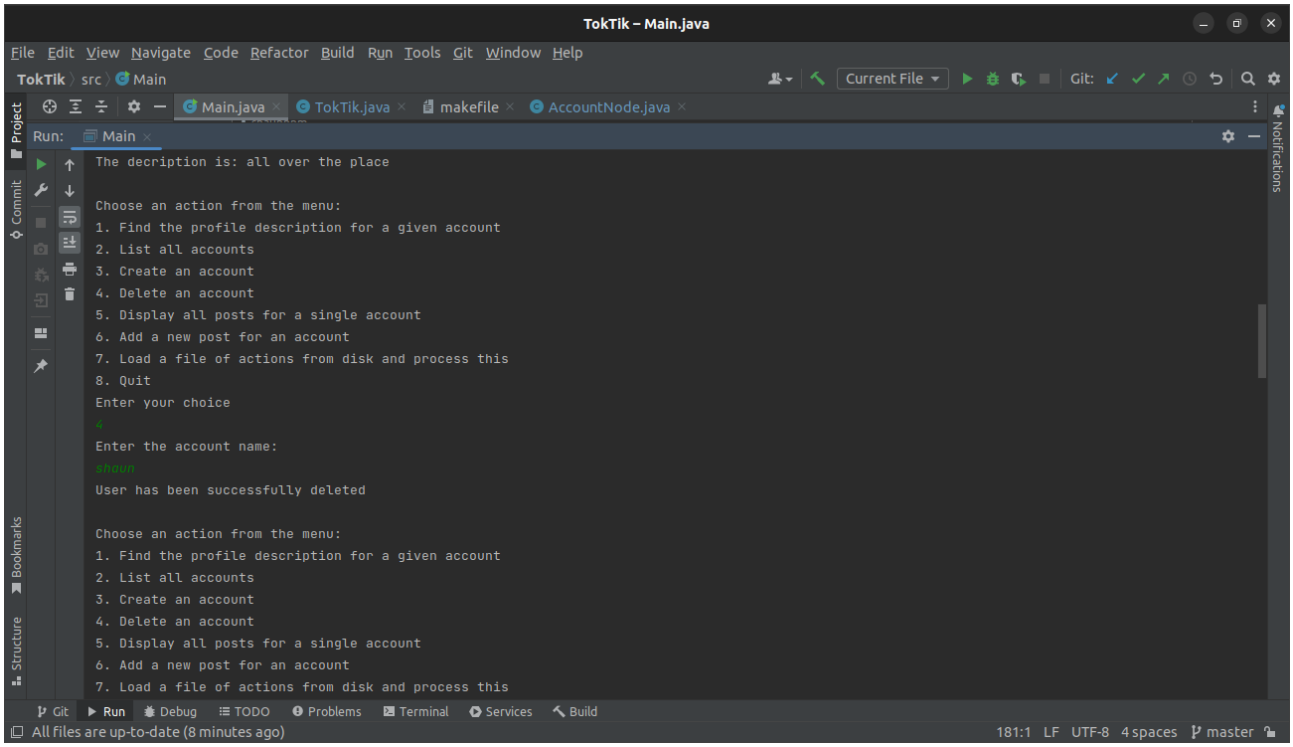
TokTik src Main
Current File
Git:
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
3
Enter the account name:
shaun
Enter the account description:
always show up
Your new account has been successfully created.
Choose 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 this
8. Quit
Enter your choice
2
AccountName: shaun
The decription is: always show up
AccountName: thabang
The decription is: all over the place
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (8 minutes ago)
181:1 LF UTF-8 4 spaces master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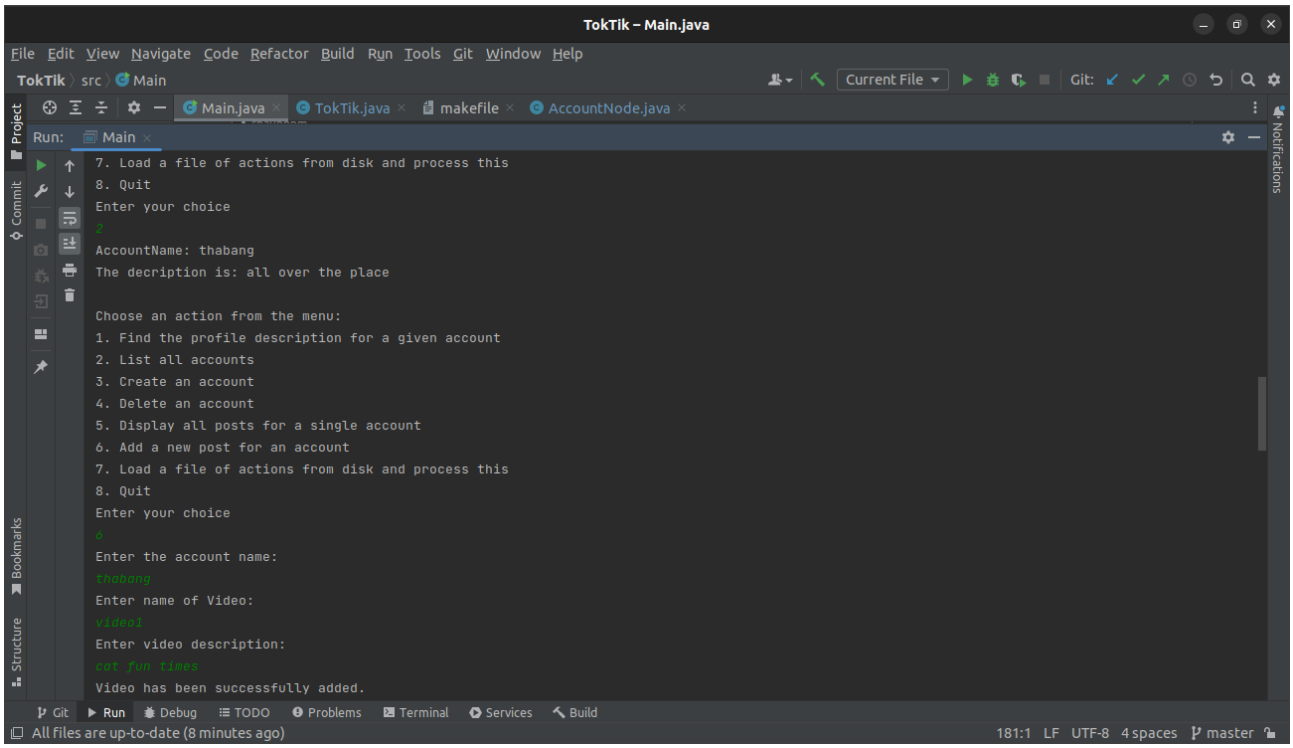
File Edit View Navigate Code Refactor Build Run Tools Git Window Help
TokTik src Main
Current File
Git:
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
The decription is: all over the place
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
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 this
8. Quit
Enter your choice
4
Enter the account name:
shaun
User has been successfully deleted
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 this
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (8 minutes ago)
181:1 LF UTF-8 4 spaces master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Current File
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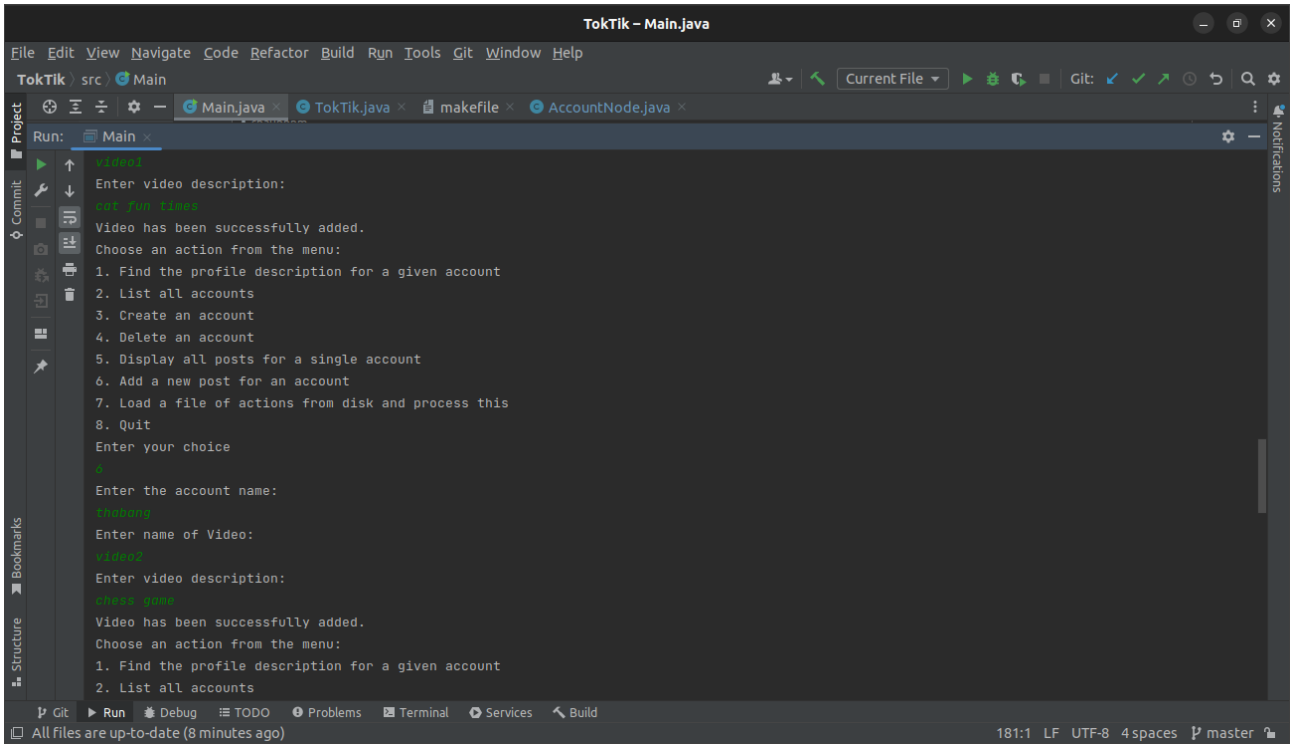
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
2
AccountName: thabang
The decription is: all over the place
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
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 this
8. Quit
Enter your choice
6
Enter the account name:
thabang
Enter name of Video:
video1
Enter video description:
cat fun times
Video has been successfully added.
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (8 minutes ago)
181:1 LF UTF-8 4 spaces master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Current File
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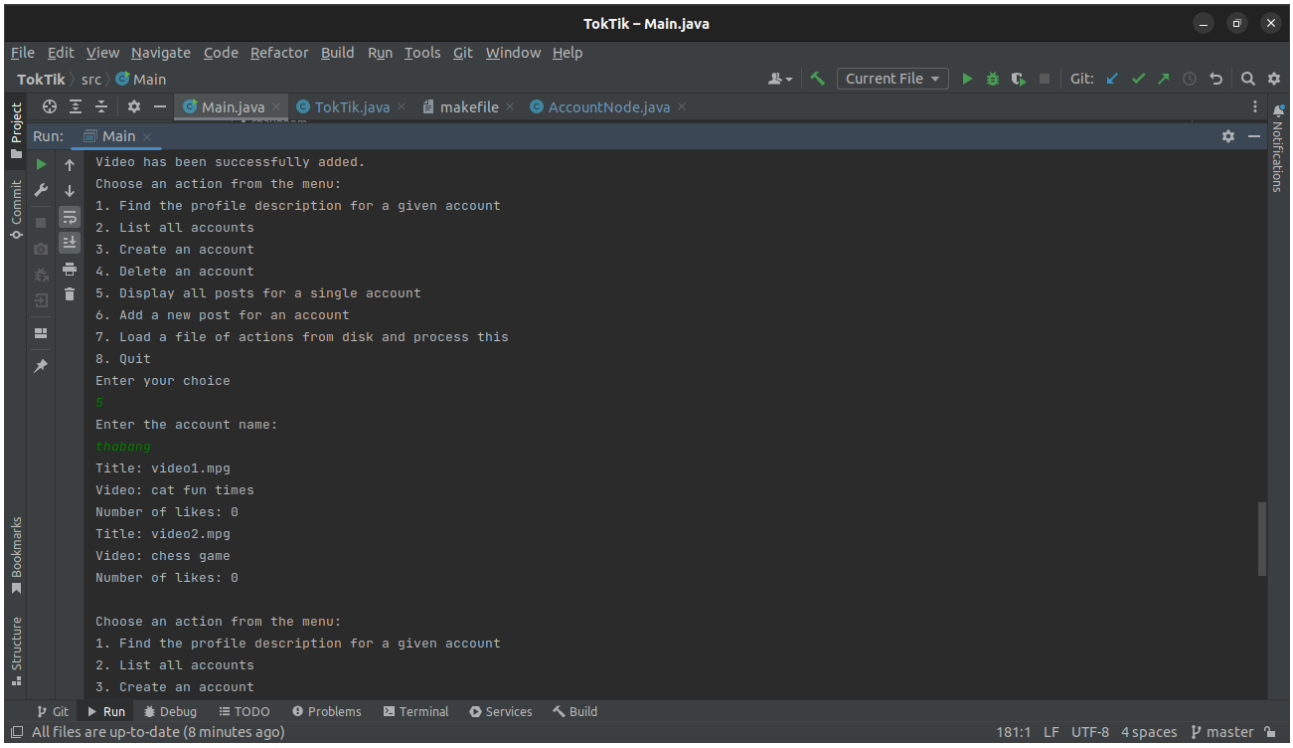
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
video1
Enter video description:
cat fun times
Video has been successfully added.
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
6
Enter the account name:
thabang
Enter name of Video:
video2
Enter video description:
chess game
Video has been successfully added.
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
Project
Commit
Bookmarks
Structure
Notifications
Git
Run
Debug
TODO
Problems
Terminal
Services
Build
All files are up-to-date (8 minutes ago)
181:1 LF UTF-8 4 spaces master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File Edit View Navigate Code Refactor Build Run Tools Git Window Help
TokTik src Main
Current File
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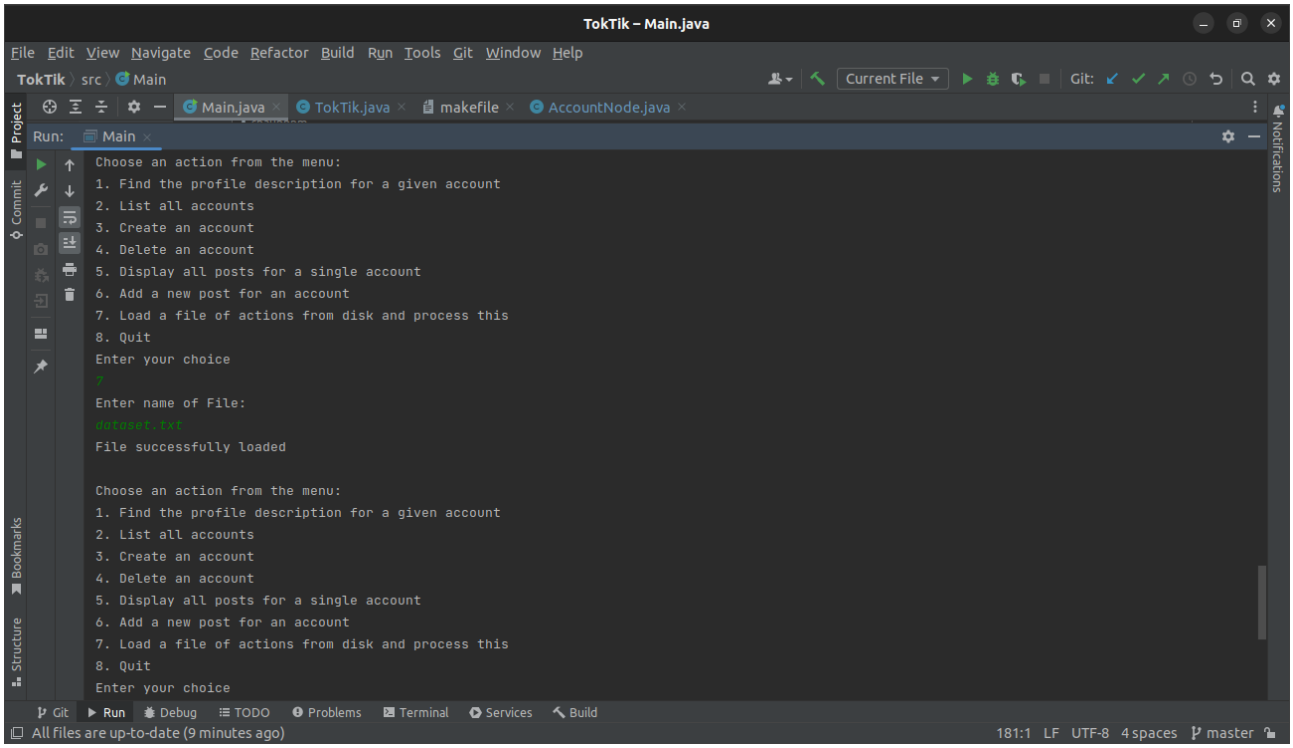
TokTik.java
makefile
AccountNode.java
Run: Main
Video has been successfully added.
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
5
Enter the account name:
thabang
Title: video1.mpg
Video: cat fun times
Number of likes: 0
Title: video2.mpg
Video: chess game
Number of likes: 0
Choose an action from the menu:
1. Find the profile description for a given account
2. List all accounts
3. Create an account
Project
Commit
Bookmarks
Structure
Notifications
Git
Run
Debug
TODO
Problems
Terminal
Services
Build
All files are up-to-date (8 minutes ago)
181:1 LF UTF-8 4 spaces master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Current File
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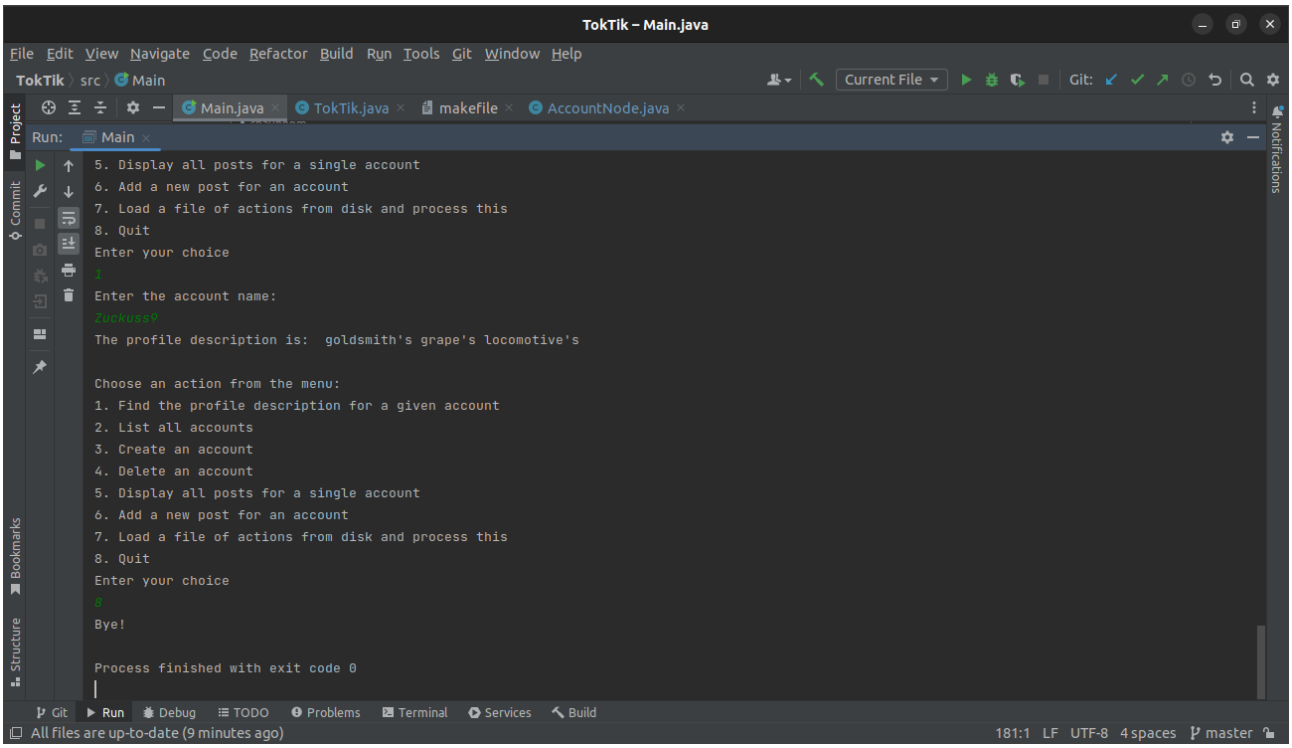
4. Delete an account
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
7
Enter name of File:
dataset.txt
File successfully loaded
Choose an action from the menu:
1. Find the profile description for 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 this
8. Quit
Enter your choice
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (9 minutes ago)
181:1 LF UTF-8 4 spaces master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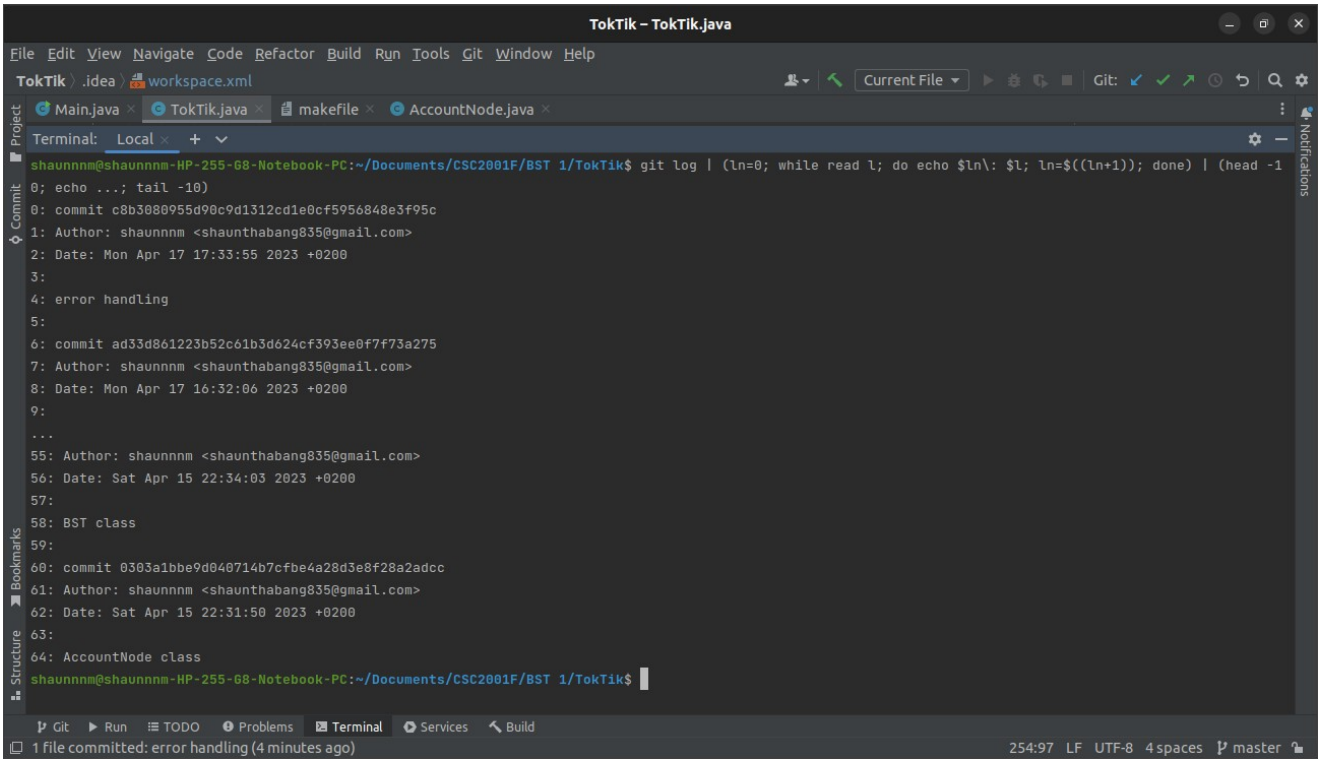
File Edit View Navigate Code Refactor Build Run Tools Git Window Help
TokTik src Main
Current File
Git:
Main.java
TokTik.java
makefile
AccountNode.java
Run: Main
5. Display all posts for a single account
6. Add a new post for an account
7. Load a file of actions from disk and process this
8. Quit
Enter your choice
1
Enter the account name:
Zuckuss9
The profile description is: goldsmith's grape's locomotive's
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 this
8. Quit
Enter your choice
8
Bye!
Process finished with exit code 0
Git Run Debug TODO Problems Terminal Services Build
All files are up-to-date (9 minutes ago)
181:1 LF UTF-8 4 spaces master


TokTik – TokTik.java
File Edit View Navigate Code Refactor Build Run Tools Git Window Help
TokTik .idea workspace.xml
Current File
Git:
Main.java
TokTik.java
makefile
AccountNode.java
Terminal: Local
shaunnnm@shaunnnm-HP-255-G8-Notebook-PC:~/Documents/CSC2001F/BST 1/TokTik$ git log | (ln=0; while read l; do echo $ln\: $l; ln=$((ln+1)); done) | (head -1
0; echo ...; tail -10)
0: commit c8b3080955d90c9d1312cd1e0cf5956848e3f95c
1: Author: shaunnnm <shaunthabang835@gmail.com>
2: Date: Mon Apr 17 17:33:55 2023 +0200
3:
4: error handling
5:
6: commit ad33d861223b52c61b3d624cf393ee0f7f73a275
7: Author: shaunnnm <shaunthabang835@gmail.com>
8: Date: Mon Apr 17 16:32:06 2023 +0200
9:
...
55: Author: shaunnnm <shaunthabang835@gmail.com>
56: Date: Sat Apr 15 22:34:03 2023 +0200
57:
58: BST class
59:
60: commit 0303a1bbe9d040714b7cfbe4a28d3e8f28a2adcc
61: Author: shaunnnm <shaunthabang835@gmail.com>
62: Date: Sat Apr 15 22:31:50 2023 +0200
63:
64: AccountNode class
shaunnnm@shaunnnm-HP-255-G8-Notebook-PC:~/Documents/CSC2001F/BST 1/TokTik$
Project
Commit
Bookmarks
Structure
Notifications
Git Run TODO Problems Terminal Services Build
1 file committed: error handling (4 minutes ago)
254:97 LF UTF-8 4 spaces master