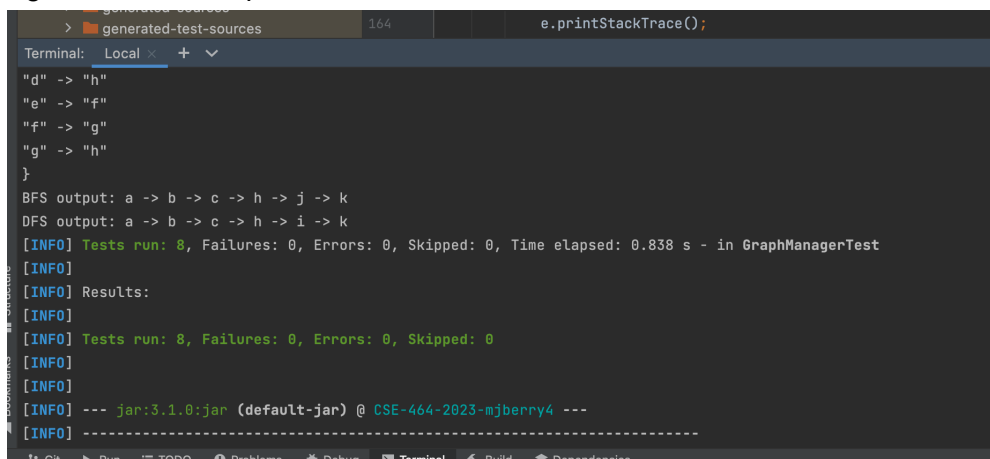


GitHub Repo: <https://github.com/accfmax95/CSE-464-2023-mjberry4>

How to Run the BFS and DFS Functions -

1. Once the code has been downloaded and opened in IntelliJ (or whatever IDE you are using), type 'mvn package' into your IDE's terminal. This will install the necessary libraries onto your project structure. NOTE: If you want to run the program with the .jar file created by maven, type this command: 'mvn clean compile assembly:single'. This will install the .jar file with the necessary dependencies to execute the Part1.java file. This base file has just a few lines to test the GraphManager. You can modify this file for further testing.
2. Once you run 'mvn package', you will notice the test cases run in console. All test cases should pass if the BFS and DFS function is working correctly.
3. If you would like to test the program manually, you can open the GraphManagerTest.java file and run the testGraphSearch function at the bottom. The inputs I am using for BFS and DFS are as follows:
 - a. BFS - GraphSearch(src, dst, Algorithm.BFS)
 - i. Output should be "a -> b -> c -> h -> j -> k"
 - b. BFS - GraphSearch(src, dst, Algorithm.DFS)
 - i. Output should be "a -> b -> c -> h -> i -> k"
 - c. NOTE: If you want to test different inputs by modifying the test functions, you will also have to modify what the output should be in order for the new test case to pass. To change the src value and dst value, simply modify the letter of the assigned node for the src and dst variables in the test function (They are "a" and "k" as default).
4. Here is a screenshot of the correct output when running 'mvn package'. As you can see, all the test cases pass, and I have displayed the output of both the DFS and BFS algorithm for the input "a" and "k" as the src and dst.

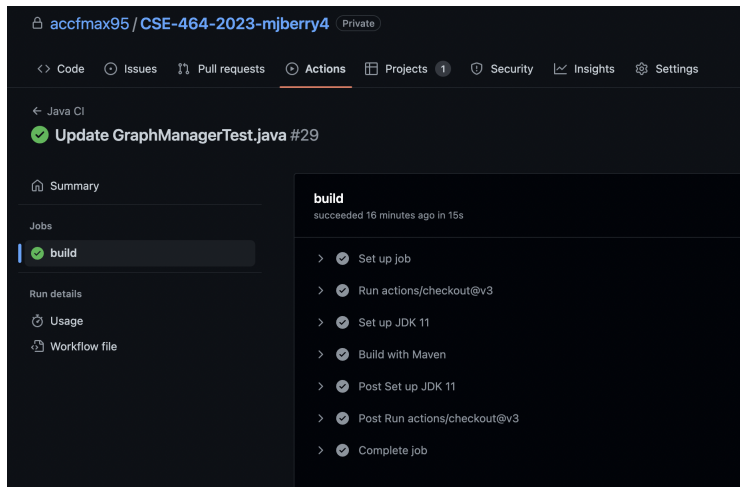


```
> generated-test-sources 164 e.printStackTrace();
Terminal: Local x + v
"d" -> "h"
"e" -> "f"
"f" -> "g"
"g" -> "h"
}
BFS output: a -> b -> c -> h -> j -> k
DFS output: a -> b -> c -> h -> i -> k
[INFO] Tests run: 8, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.838 s - in GraphManagerTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 8, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- jar:3.1.0:jar (default-jar) @ CSE-464-2023-mjberry4 ---
[INFO]
-----
[INFO]
```

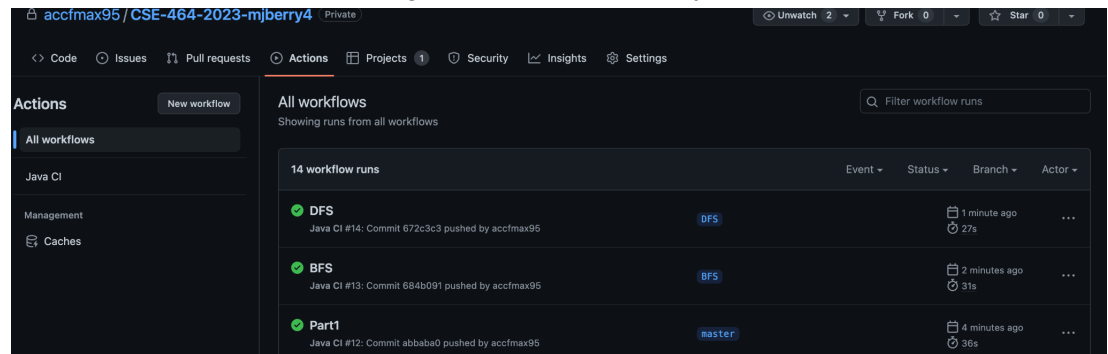
GitHub Commits, Branches, and Merges -

1. Here is a history of my commits, merges and everything else listed in the Actions tab of my GitHub: <https://github.com/accfmax95/CSE-464-2023-mjberry4/actions>

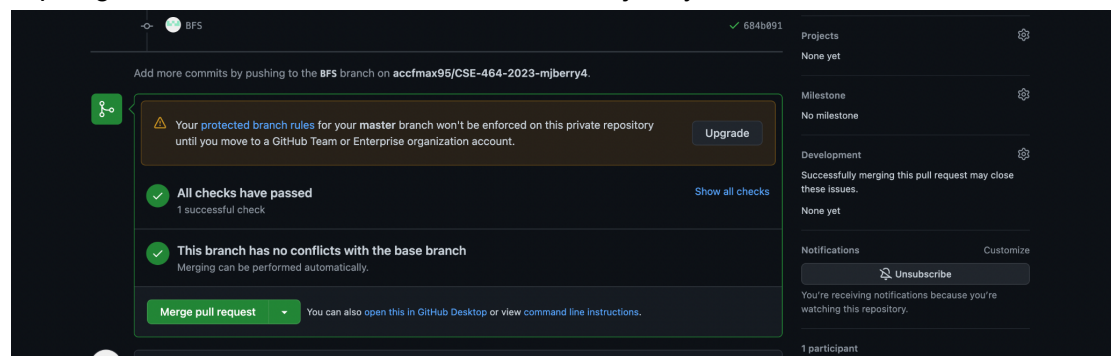
2. You can view a specific history of my commits here:
<https://github.com/accfmax95/CSE-464-2023-mjberry4/commits/master>
3. In this screenshot, you can see that my Continuous Integration is set up properly. This is one example of the build being complete.



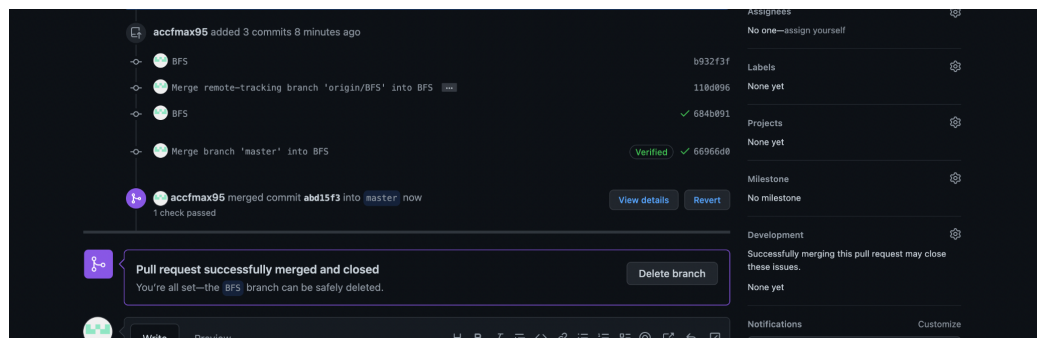
4. Here I will list a series of screenshots that shows each branch being created, committed, and eventually merged into the master branch:
 - a. The DFS, BFS, and Part1 being committed separately.



- b. The BFS branch being merged with the main branch.
<https://github.com/accfmax95/CSE-464-2023-mjberry4/actions/runs/4527563758>



- c. The DFS branch being merged with the main branch, and my resolution of the merge conflicts.
<https://github.com/accfmax95/CSE-464-2023-mjberry4/actions/runs/4527646628>



- d. The final history of all these merges happening being shown through Continuous Integration.

Actions

New workflow

All workflows

Java CI

Management

Caches

All workflows

Showing runs from all workflows

Filter workflow runs

18 workflow runs

Event - Status - Branch - Actor

✓ Merge pull request #6 from accfmax95/DFS

Java CI #18: Commit 695a5f9 pushed by accfmax95

master

1 minute ago

25s

...

✓ Merge branch 'master' into DFS

Java CI #17: Commit 252a8ff pushed by accfmax95

DFS

1 minute ago

22s

...

✓ Merge pull request #5 from accfmax95/BFS

Java CI #16: Commit abd15f3 pushed by accfmax95

master

17 minutes ago

34s

...

✓ Merge branch 'master' into BFS

Java CI #15: Commit 66966d0 pushed by accfmax95

BFS

17 minutes ago

26s

...

✓ DFS

Java CI #14: Commit 672c3c3 pushed by accfmax95

DFS

22 minutes ago

27s

...

✓ BFS

Java CI #13: Commit 684b091 pushed by accfmax95

BFS

24 minutes ago

31s

...

✓ Part1

Java CI #12: Commit abbaba0 pushed by accfmax95

master

26 minutes ago

38s

...