Github Repository: [EbenTowne/CSE464-EbenTowne (github.com)](github.com)

Shared with the following TAs and Graders:

- TA Liangyi Huang: liangyigrade/mehuangliang+grade@gmail.com
- Grader Kavya Chandrika Vempalli: kavyachandrikavempalli
- Grader Adwaith Chittavally Dugge Gowda: adwaithcd

<mark>Project outline states the professor should be invited as a collaborator, but there is no profile for the professor to add to the lost of Github collaborators</mark>

How to run my code:

- Download the zip file, either from Canvas or Github.
- Navigate to the repository folder on terminal (via "cd CSE464-EbenTowne-master" command).
- Run "mvn package" to compile and run the unit tests for the code.
    - Can also run "mvn test" to run unit tests.
- **Expected Output:**

```
Luge  r Jg  nas peen auueu
[INFO] Tests run: 7, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.155 s -- in GraphTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 7, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  1.580 s
[INFO] Finished at: 2024-10-09T11:03:24-07:00
[INFO] ------------------------------------------------------------------------
ebentowne@CSE340:~/CSE464-EbenTowne-master$ S
```

When running "mvn package" or "mvn test", each unit test will run and will print out the status/output of each unit test's execution. <mark>The printed information will print before the expected output listed above.</mark>

parseGraph(String filepath):

```
Graph initialized
Graph has been successfully parsed
```

toString():

```
Graph initialized
Graph has been successfully parsed
Node List:
a
b
c
d
e

Edge List:
a -> b
a -> c
b -> d
c -> d
c -> e
e -> a
a -> d
Total edge count: 7
```

outputGraph():

```
Graph initialized
Graph has been successfully parsed
Node List:
a
b
c
d
e

Edge List:
a -> b
a -> c
b -> d
c -> d
c -> e
e -> a
a -> d
Total edge count: 7
Output successfully written to output.txt
```

<mark>addNode and addNodes are both tested in the same unit test (**addNodeTest**)</mark>

```
Graph initialized
Graph has been successfully parsed
Node added: v
Node added: x
Node added: y
Node added: z
List of nodes have been added successfully
```

addEdge(String srcLabel, String dstLabel):

<mark>addNode is also tested in the addEdge unit test when either the source node and/or the destination node are not present in the list of nodes</mark>

```
Graph initialized
Graph has been successfully parsed
Source node 'b' has been added
Destination node 'c' has been added
Edge 'b->c' has been added
Node added: f
Source node 'f' has been added
Node added: g
Destination node 'g' has been added
Edge 'f->g' has been added
[INFO] Tests run: 7, Failures: 0, Error
```

outputDOTGraph(String path):

```
Graph initialized
Graph has been successfully parsed
DOT Graph has been created and written to output.dot
```

outputGraphics(String path, String format):

<mark>Only supports .png files</mark>

```
Graph initialized
Graph has been successfully parsed
DOT Graph Image has been successfully created and written to output.png
```

<mark>All links to commits are listed in sequential order (first commit -> last commit)</mark>
List of Github Commit Links:
Feature 1: [Feature 1 · EbenTowne/CSE464-EbenTowne@421be30 (github.com)](github.com)
Feature 2: [Feature 2 · EbenTowne/CSE464-EbenTowne@2468577 (github.com)](github.com)
Feature 3: [Feature 3 · EbenTowne/CSE464-EbenTowne@25d3e6d (github.com)](github.com)
Feature 4: [Feature 4 · EbenTowne/CSE464-EbenTowne@667e436 (github.com)](github.com)

Adding Maven Support:
- [Implementing Maven Iteration 1 · EbenTowne/CSE464-EbenTowne@3fc4aa4 (github.com)](github.com)
- [Update pom.xml file · EbenTowne/CSE464-EbenTowne@b461db5 (github.com)](github.com)
- [Update pom.xml file pt2 · EbenTowne/CSE464-EbenTowne@d341e26 (github.com)](github.com)
- [Update pom.xml file pt3 · EbenTowne/CSE464-EbenTowne@f7c3a70 (github.com)](github.com)

Fine-Tuning Unit Test Cases:
- [Update test file · EbenTowne/CSE464-EbenTowne@bf56739 (github.com)](github.com)
- [Update test file · EbenTowne/CSE464-EbenTowne@976fc71 (github.com)](github.com)
- [Update test file · EbenTowne/CSE464-EbenTowne@bd02ecb (github.com)](github.com)

Fixing Small Issues:
- [Added print out statements · EbenTowne/CSE464-EbenTowne@abeb5f0 (github.com)](github.com)
- [Making pdf files, switch to png files · EbenTowne/CSE464-EbenTowne@2f653c5 (github.com)](github.com)