

KEYNOTES:

1. Two premade .dot files are place in src/dot files/*
2. All file outputs are in src/outputs/*
3. Commit Links are not final versions of code things were changed with other commits
4. Feature 4 gives an error about class load however it does not affect my code the feature works. I could not figure out the cause of it.

LINKS:

Github Commits:

Feature 1:

https://github.com/JulianGomez1604/CSE_464_2024_jjgomezm/commit/001a9c89d4ea3bdadf95b308f05716ea5efba288

Feature 2:

https://github.com/JulianGomez1604/CSE_464_2024_jjgomezm/commit/dcb1254f67bca7dd72194674dc235c4167d2313e

Feature 3:

https://github.com/JulianGomez1604/CSE_464_2024_jjgomezm/commit/9cd07c6ca7e128ffcd2434db6d315afdfc45f9c6

Feature 4:

https://github.com/JulianGomez1604/CSE_464_2024_jjgomezm/commit/c20f76a6f243f9de6b6888dbcc7ab78db6241550

Running the code:

Using your IDE of choice run the main code file, located in “src/main/java/org.example/App.java” normally by either pressing the run button or right clicking.

Verifying graph is actually altered:

Export using option E then use option Q and check src/outputs/updatedGraph.dot

Running Test:

NOTE: Maven is entirely new to me so it was weird. AppTest is not needed nor used could not figure out how to use

If Maven environment is setup run this command on bash terminal:

```
mvn -Dtest=testFirstFeature,testSecondFeature,testThirdFeature,testFourthFeature test
```

If Maven environment is not set up, run tests individually by clicking next to them. IntelliJ has feature of click on green play button next to each individual test.

Test Location:

```
src/test/java/org.example/*
```

Code Inputs (Please input line by line):**Feature 1:**

Input 1:

```
a
```

```
src/dot files/graph1.dot
```

Output 1:

```

Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
a
Please input your file path:

src/dot files/graph1.dot
Your file has been imported.

Your graph has been output as a string.
Format: ([vertex1, vertex2,...], [(vertex1, vertex2), (vertex2, vertex1)])
(vertex1, vertex2) == vertex1 -> vertex2

([A, B, C, D], [(A,B), (B,C), (C,A), (A,D), (D,C)])
Number of Nodes: 4
-----
Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

```

Input 2:

a

src/dot files/grap3.dot

Output 2:

```
Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
a
Please input your file path:

src/dot_files/graph3.dot
Failed to import from file. Please check file path.

Your graph has been output as a string.
Format: ([vertex1, vertex2,...], [(vertex1, vertex2), (vertex2, vertex1)])
(vertex1, vertex2) == vertex1 -> vertex2

([], [])
Number of Nodes: 0
-----
Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
|
```

**Feature 2: For validation export using option E and check
src/outputs/updatedGraph.dot**

Input 1:
 b
 hello
Output 1:

```
Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
b
You chose: Add node(s) to the graph.
Please enter a comma separated list node1, node2,...

hello
Node(s) have been added.

Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program
```

Input 2:

b

hello, bye, cheese, burger

Output 2:

```
Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
b
You chose: Add node(s) to the graph.
  Please enter a comma separated list node1, node2,...

hello, bye, cheese, burger
Node(s) have been added.

Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program
```

Feature 3:

Input 1:

c
hello
bye

Output 1:

```

Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
c
You chose: Add edge to graph.

Please enter the edge in the following order A -> B. (You will prompted for two inputs.

Please enter A:
hello

Please enter B:
bye
Vertex hello does not exist and has been added.
Vertex bye does not exist and has been added.

Your edge has been added to the graph.

```

Input 2:

c

press enter

bye

Output 2:

```

Command Line Options:
  A: Import graph from .DOT file
  B: Add node to graph
  C: Add edge to graph
  D: Export graph into image
  E: Export graph into .DOT file
  Q: Quit Program

Please select an option:
c
You chose: Add edge to graph.

Please enter the edge in the following order A -> B. (You will prompted for two inputs.

Please enter A:

Please enter B:
bye
One of the two inputs is empty please try again.

```

Feature 4:

Export to .DOT file: check src/outputs/updatedGraph.dot for graph change

Input 1:

b

add,node,to,see,visual,change,in,graph

e

Output 1:

```
Command Line Options:
```

```
A: Import graph from .DOT file
```

```
B: Add node to graph
```

```
C: Add edge to graph
```

```
D: Export graph into image
```

```
E: Export graph into .DOT file
```

```
Q: Quit Program
```

```
Please select an option:
```

```
b
```

```
You chose: Add node(s) to the graph.
```

```
Please enter a comma separated list nod
```

```
add,node,to,see,visual,change,in,graph
```

```
Node(s) have been added.
```

```
Command Line Options:
```

```
A: Import graph from .DOT file
```

```
B: Add node to graph
```

```
C: Add edge to graph
```

```
D: Export graph into image
```

```
E: Export graph into .DOT file
```

```
Q: Quit Program
```

```
Please select an option:
```

```
e
```

```
You chose: Export graph into .DOT file
```

```
Exported file successfully!
```



```

1 digraph G {
2     add;
3     node;
4     to;
5     see;
6     visual;
7     change;
8     in;
9     graph;
10 }

```

Export to Graphic: check src/outputs/graphics/graph.png

Input 1:

d

src/dot files/graph1.dot

Output 1:

Command Line Options:

A: Import graph from .DOT file
 B: Add node to graph
 C: Add edge to graph
 D: Export graph into image
 E: Export graph into .DOT file
 Q: Quit Program

Please select an option:

d

You chose: Export graph into image

Enter file path to .DOT file:

src/dot files/graph1.dot

File Found!

SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".

SLF4J: Defaulting to no-operation (NOP) logger implementation

SLF4J: See <http://www.slf4j.org/codes.html#StaticLoggerBinder> for further details.

PNG file generated successfully!

Input 2:

d

src/dot files/graph3.dot

Output 2:

```
Command Line Options:
```

```
A: Import graph from .DOT file
```

```
B: Add node to graph
```

```
C: Add edge to graph
```

```
D: Export graph into image
```

```
E: Export graph into .DOT file
```

```
Q: Quit Program
```

```
Please select an option:
```

```
d
```

```
You chose: Export graph into image
```

```
Enter file path to .DOT file:
```

```
src/dot files/graph3.dot
```

```
File not Found.
```