CSE 464 Project Part 1
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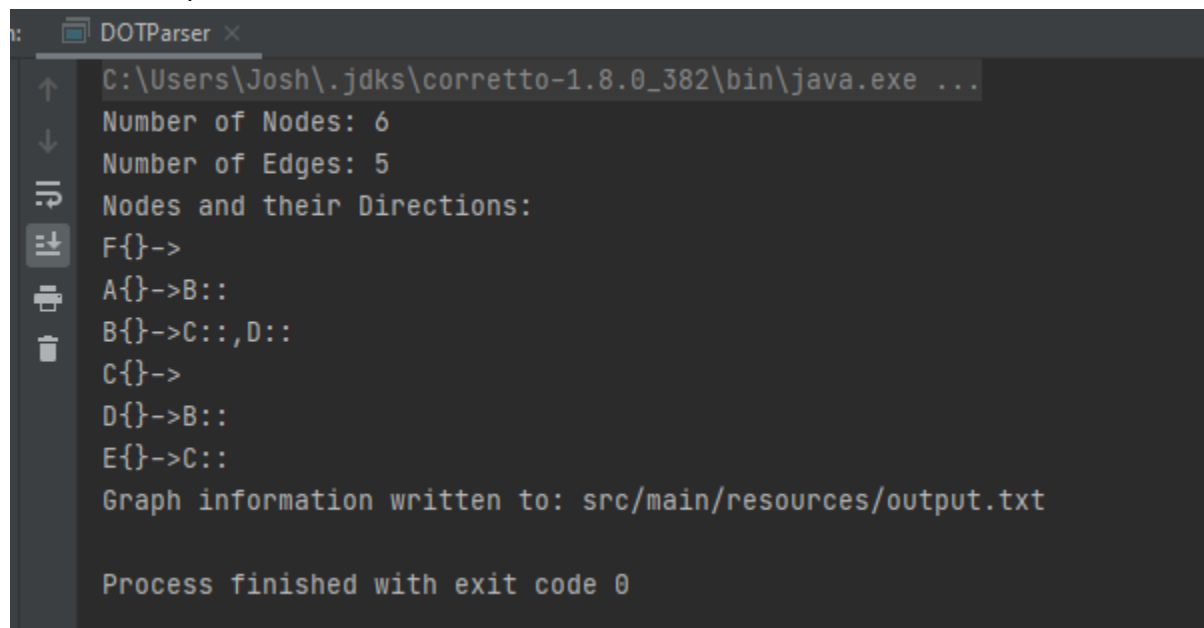
Link to Repo:
https://github.com/joshrussell170/CSE4642023jrrusse9/tree/master

To run the code you can simply do "mvn package" and the code will compile, run the tests, and spit out the evaluation. I also wrote examples in the main() of the DOTParser class which are commented out. You can uncomment these 1 at a time and test each specific feature.

- All inputs are in files (mainly color.dot) or directly written into the code
- All outputs are presented in the form requested by the Project Documentation
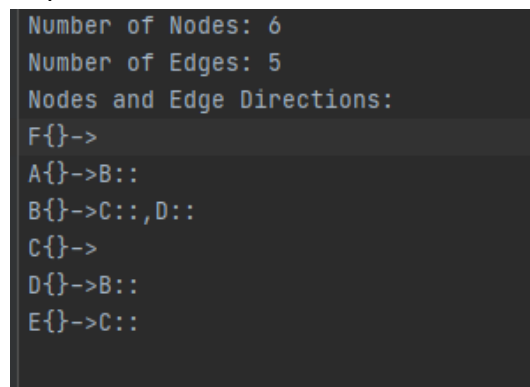
Feature 1 Outputs:

output.txt:

Feature 2 Outputs:

```
DOTParser ×
C:\Users\Josh\.jdks\corretto-1.8.0_382\bin\java.exe ...
Node with label 'B' already exists
Node with label 'A' already exists
Number of Nodes: 10
Number of Edges: 5
Nodes and their Directions:
F{}->
L{}->
A{}->B::
S{}->
B{}->C::,D::
I{}->
C{}->
D{}->B::
E{}->C::
T{}->
Graph information written to: src/main/resources/output.txt

Process finished with exit code 0
```

Output.txt:

```
Number of Nodes: 10
Number of Edges: 5
Nodes and Edge Directions:
F{}->
L{}->
A{}->B::
S{}->
B{}->C::,D::
I{}->
C{}->
D{}->B::
E{}->C::
T{}->
```

Feature 3 Outputs:

```
C:\Users\Josh\.jdks\corretto-1.8.0_382\bin\java.exe ...
Edge already exists between A and B
Edge already exists between Z and A
Number of Nodes: 9
Number of Edges: 9
Nodes and their Directions:
A{}->B::,A::
F{}->E::
X{}->
Z{}->A::
B{}->C::,D::
C{}->
D{}->B::
W{}->X::
E{}->C::
Graph information written to: src/main/resources/output.txt

Process finished with exit code 0
```

Output.txt:

```
Number of Nodes: 9
Number of Edges: 9
Nodes and Edge Directions:
A{}->B::,A::
F{}->E::
X{}->
Z{}->A::
B{}->C::,D::
C{}->
D{}->B::
W{}->X::
E{}->C::
```
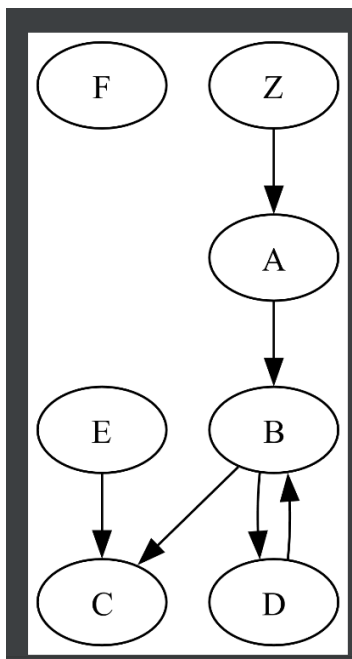
Feature 4 Outputs:

```
C:\Users\Josh\.jdks\corretto-1.8.0_382\bin\java.exe ...
Graph saved to src/main/resources/output.dot
Graph saved as PNG to src/main/resources/output.png


Process finished with exit code 0
```

Output.dot:

```
digraph "G" {
"F"
"A" -> "B"
"B" -> "C"
"B" -> "D"
"D" -> "B"
"E" -> "C"
"Z" -> "A"
}
```

Output.png:

1st Commit for Feature 1:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/8c3a1f6f68486f0ee337b64a06c890f946351464

2nd Commit for Feature 2:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/0a0b681cf68fb1daf093d59da0dbeb2d0db0ab2f

3rd Commit for Feature 3:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/7a4b56919122f277f76b4ec46df448954d6da001

4th Commit for Feature 4:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/1ee337e758df92e28e0c3ba98930196c9565feab

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/4f35e950aa71cd9345b3e7ecd16269c76f6ffbc6

Commit for Test Cases:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/e33ccdc9dd967866e90db5c6441138c1b621141d

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/91f5467cc1d6bfc35bd924b248116c03a45a43fa

Final Commit:

https://github.com/joshrussell170/CSE4642023jrrusse9/commit/eecfd85e76bf2c8479b6661563c39df1eff00649