

Project Title: CSE 464 Course Project

Project Description

This project implements graph manipulation functionalities such as loading a graph from a DOT file, adding nodes, adding edges, and exporting the graph back to a DOT file.

The project has the following features.

Feature 1: Parsing a graph from a DOT file.

Feature 2: Adding nodes to the graph.

Feature 3: Adding edges to the graph.

Feature 4: Exporting the graph to a DOT file and graphical format.

Instructions to run the code

GitHub branch to be used is main branch. The main branch has is the final code for the project.

The code can be run using mvn package and 4 test cases will be passed.

Below are the attached screenshots of the expected output

Expected output1

```
digraph {
  a -> b;
  b -> c;
  c -> d;
  d -> a;
  a -> e;
  e -> f;
  e -> g;
  f -> h;
  g -> h;
}
// Number of nodes: 8
// Number of edges: 9
|
```

Expected output 2

```
digraph {  
    a -> b;  
    b -> c;  
    c -> d;  
    d -> a;  
    a -> e;  
    e -> f;  
    e -> g;  
    f -> h;  
    g -> h;  
    i;  
}
```

Expected output 3

```
digraph {  
    a -> b;  
    b -> c;  
    c -> d;  
    d -> a;  
    a -> e;  
    e -> f;  
    e -> g;  
    f -> h;  
    g -> h;  
    g -> l;  
}
```

Expected output 4

```
digraph {  
    a -> b;  
    b -> c;  
    c -> d;  
    d -> a;  
    a -> e;  
    e -> f;  
    e -> g;  
    f -> h;  
    g -> h;  
    b -> j;  
}
```