Eulerian Graphs

As we can see, the algorithm visits a node and all its edges only once. Hence the time complexity of this algorithm is O(E). Also, please find the steps for executing the program below.

Steps to Execute

Step 1: Unzip the folder, go to the directory where source code is stored
Step 2: execute javac *.java
Step 3:execute following commands for demonstration of graph logic on different inputs.

```
>java EulerianGraphs eulerian.txt
--------------------------------------------------------------------------------
Graph is Eulerian
--------------------------------------------------------------------------------
Statistics for Step Eulerian Test Function :
Time: 14 msec.
Memory: 3 MB / 192 MB.
----------------------------------------
```

```
>java EulerianGraphs nonConnected.txt
--------------------------------------------------------------------------------
Graph is not connected
--------------------------------------------------------------------------------
Statistics for Step Eulerian Test Function :
Time: 14 msec.
Memory: 3 MB / 192 MB.
----------------------------------------
```

```
>java EulerianGraphs semi-eulerian.txt
--------------------------------------------------------------------------------
Eulerian Path found between 2 and 3
--------------------------------------------------------------------------------
Statistics for Step Eulerian Test Function :
Time: 14 msec.
Memory: 3 MB / 192 MB.
----------------------------------------
```

```
>java EulerianGraphs oddNums.txt
--------------------------------------------------------------------------------
Graph is not Eulerian.  It has 4 vertices of odd degree.
--------------------------------------------------------------------------------
Statistics for Step Eulerian Test Function :
Time: 12 msec.
Memory: 3 MB / 192 MB.
----------------------------------------
```