

Read Me

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The folder contains the following files:

**** Inside Weight_Thrwoing folder**

1. sourceCode.cpp - Source Code for termination detection by Weight throwing.
2. in-params.txt - Input parameters for the algorithm.
3. topology.txt - Topology of the distributed network.

**** Inside Spanning_Tree folder**

1. sourceCode.cpp - Source Code for termination detection by Spanning Tree.
2. in-params.txt - Input parameters for the algorithm.
3. topology.txt - Topology of the distributed network.

Points to be noted:

1. Strictly adhering to the input format as given in the problem statement.
2. No. of active nodes to be present in 'in-params.txt' at the last line(not mentioned in the problem statement).
3. In case of Spanning Tree based algorithm, the spanning tree of the network will be mentioned after the network topology.
4. The configuration file contains details of all nodes, so during execution mentioning the node Id will be required to retrieve details about that node.
5. Log files will be created with Node-Id suffixed to the name like "LogFile_<NodeId>.txt".

Compiling:

g++ -pthread -std=c++11 -g ProgAssgn2_cs16mtech11009.cpp

Execution:

To execute Node with Id-1 : ./a.out 1

Input Format:

For file in-params.txt :

```
8 2 7 2000000 30 ---> #nodes, minMsgLt, maxMsgLt,  $\mu$ -delay, maxSent
1 ---> Root-nods
3 4 6 ---> Active Nodes
```

For file topology.txt :

```
8 ---> #nodes
1 - 10.0.0.4:3333
2 - 10.0.0.5:3333
3 - 10.0.0.6:3333
4 - 10.0.0.7:3333 ---> #Node parameters – IP and port
5 - 10.0.0.11:3333
6 - 10.0.0.12:3333
7 - 10.0.0.13:3333
8 - 10.0.0.14:3333
1 2 3
2 1 3 4 8
3 1 2 4 5 ---> Network Topology
4 2 3 8
5 3 6 7
6 5 7
7 5 6
8 2 4
1 2 3
2 4 8 ---> Spanning Tree of the topology
3 5
5 6 7
```