COP5615

Distributed Operating Systems Principles

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Project III

Pastry

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Code Submitted

1. Project3
2. Project3_Bonus

What is Working
Both basic program and bonus program are working as per the requirements.

Instructions for running the project

1. Unzip the attached zipped file to temporary location on the machine.
2. Running Project3
   a) Open command prompt and cd to the location of the "**Project3**" directory contained in the zipped file (make sure sbt is installed on the machine)
   b) Run as below

      sbt "run *numNodes numRequests*"

3. Running Project3_Bonus
   a) Open command prompt and cd to the location of the "**Project3_Bonus**" directory contained in the zipped file (make sure sbt is installed on the machine)
   b) Run as below

      sbt "run *numNodes numRequests numFailures*"

      Note:
      - **numNodes** should be greater than 1
      - **numRequests** should be greater than 0
      - **numFailures** should be greater then equal to 0

Largest network we dealt with

a) **Project3** - up to 65,000 nodes
b) **Project3_Bonus** - up to 65,000

   Note: The program can support more than 65000 nodes but it'll take long time to finish. Also we were using 16-bit keys for our testing.

Results

Number of nodes	Average Hops
10	1.24
100	3.878
200	7.172
500	6.8354
1000	6.7645
2000	6.43315
5000	7.1969
10000	5.89094
20000	4.777625
50000	4.654772