CECS 327
Assignment 10
Total: 20 Points

General Instruction

- Submit your work in the Dropbox folder via BeachBoard (Not email or in class).

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1. (20 points) Implement a `Pastry` routing client in `Java` on your local machine.
   - If you submit the assignment 9, make sure that the server program is running on your `AWS` server.
   - Refer the section 3.1 of the Pastry paper. (Click here)
   - The program specification.
     1. Generate a random 4-digits quaternary number.
     2. The number is the destination Pastry ID.
     3. It should find the IP address of the destination Pastry ID using our Pastry system **NOT** directly from the `google sheet`.
     4. If you submit the assignment 9, use your `AWS` server as the first routing inquiry server. Otherwise, probe a working server from the `google sheet` and use it.
     5. It should send the request message (destination ID) to routing inquiry servers repeatedly until you find the destination server.
     6. It should be able to handle reply messages with white spaces. For instance, '1230:y.y.y.y ', ' 1230:y.y.y.y ', ' 1230:y.y.y.y', ... are all valid ones.
     7. Records the **number of hops** from your local machine to the destination server.
     8. If the destination server is unreachable or NULL, then **include** the result in the record.
     9. If a routing inquiry server is unreachable or NULL through the routing, then **exclude** the result from the record.
     10. Repeat the above steps **1,000 times**.
   - Draw a histogram from your experimental data as Figure 1 and analyze it.
   - Submit the source code of the client and your analysis report.

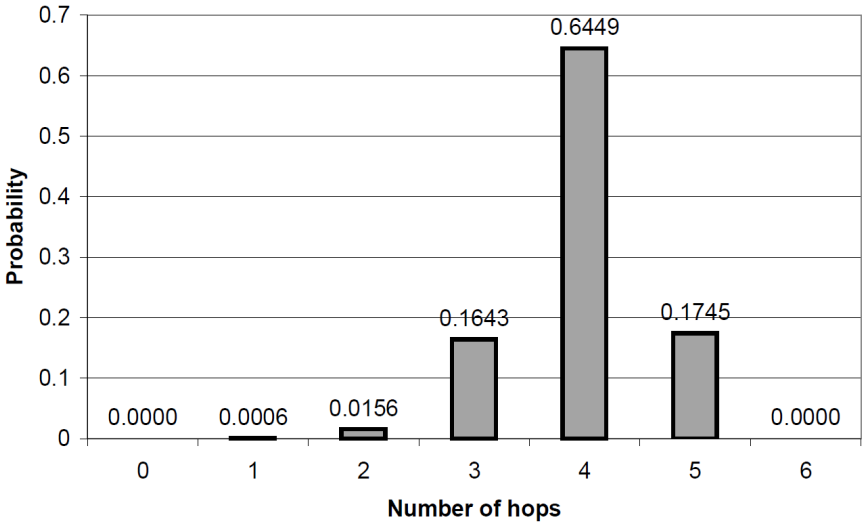

Figure 1: Probability versus number of routing hops