

## Project 3

### CHORD PROTOCOL- Report

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#### Instructions for running the code

- Unzip the zipped folder project3.zip
- Run the command `dotnet fsi Main.fsx <numberOfNodes> <numberOfRequests>`
- Both `numberOfNodes` and `numberOfRequests` should be integers else the program will exit with invalid input.

#### Implementation

- Chord protocol is implemented to find the nearest node for a given key.
- The main aim of this project is to show that as the number of nodes increases, the average number of hops increases logarithmically

#### Observations

Nodes	Number of Requests	Average Number of Hops
10	10	1.6
100	10	2.948
200	10	3.5207
500	10	3.9105
1000	10	2.635
5000	10	1.305004
10000	10	1.2470
50000	10	1.2087
100000	10	1.2028