Chord System Design Document

Overviewed below are the fundamental processes required to implement a naïve chord peer-to-peer system. This system is set up to share file resources, by managing and maintaining a list of file identifiers or pointers distributed across the nodes in the chord. This chord uses a broker node that is responsible for handling joining and leaving nodes. Both node assignment and shortcut creation are based on a power-of-two distribution, in which rings in the overall chord are filled by increasing powers of two, ideally providing a search time that slightly outperforms O (log(n)).

# Constructing Shortcuts

# Looking up a Key

# Node Joining the Overlay

# Node Leaving the Overlay