

# SkipGraph Visualization

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This project aims to help user visualize SkipGraph data structures.

What this program **can** do:

- Create a SkipNode database which is essentially an array of Skipnodes which also will act as the base layer of the SkipGraph
- Add SkipNodes onto the base layer(**Creating a SkipGraph manually**)
- Connect a SkipNode to other SkipNodes as its left and right neighbors on every level, based on the the number of common prefix of their nameIDs
- **Read through a lookup table**
  - Create nodes based on the information provided in the lookup table
  - Add them to a SkipNode database
- **Dynamically insert new SkipNodes onto the SkipGraph**, setup all of their left and right neighbors
- Handle any exceptions problems with user input might create
- Switch through nameID, numericalID and layer values as representational values of individual SkipNodes as well as switching all the values through one button
- Connectors(which are the lines that connect the SkipNode representations) at each layer are represented in a different color as to help distinguish between layers

What this program **can't** do but could:

- Search for a node with a given name/numerical ID through the interface
  - Given a name or a numericalID, connectors could be highlighted as to show the process behind the search algorithm
- Exception messages could pop up on the screen ie. "nameID should consist of getBits() digits"
- Read a different format of lookup tables as to get rid of left and right arrays each SkioNode has as to be more efficient with space