E2LSH Framework

Query:

1. Seperate vector into random samplings of length 24 vectors

Find Nearest Lattice Center

2. Concatonate lattice centers of the sampled vectors to create one ConcatID

Query Vector(s)

... >n/24

Concatonate Center IDs

Lookup ConcatID HashTable

Find Nearest Lattice Center

3. Lookup the ConcatID in the hashtable. Return the list of VectorIDs.

Sort

Compute Exact Distance

Get Vectors
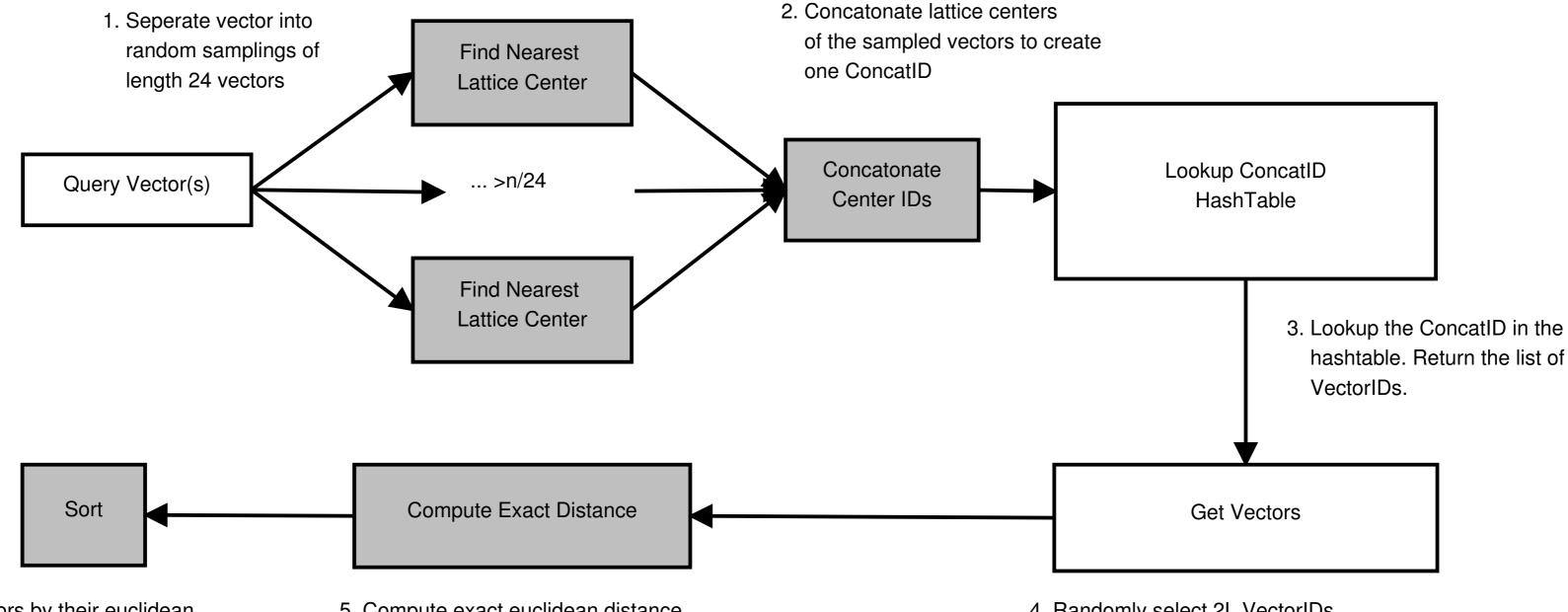
6. Sort vectors by their euclidean distances and return the nearest k vectors.

5. Compute exact euclidean distance between query and the 2L vectors.

4. Randomly select 2L VectorIDs from the list and form a list with of the data vectors.