Auto complete Design Document

Technologies: Node.js

Files:

* app.js –This is the entry point of the application. If there is a serialized file saved, deserialization is done or trie tree is generated from raw data csv.
* Autocomplete.js – Here deserialization is done and recreation of node are done here.
* Build.js – Trie node is generated from raw CSV file and serialized
* Pq.js – Priority queue has been used to save top 10 results for each node.
* Trietree.js- Insertion and find constructor defined here.

Environment variables:

* Serialized data file set as environment variable as SERIALIZED\_FILE.
* Raw data file set as environment variables as RAW\_FiLE.

Run command:

npm install

set RAW\_FILE=D:\ala\test\_data.csv

set SERIALIZED\_FILE=D:\ala\serialize.txt

node app.js [args] – Eg--- node app.js pi

Find operation

Match found

Match found

Return current node results

No Match

No match

Match found

If(!child.length)

Pass the trie node, prefix from mismatched index

If(!prefix.length) return current node results

For(i<prefix.length)

Loop till a mismatch is found.

Return no matching results

Args: Trie node,i=0,prefix

Check the trienode children at char i.