

CS 201 – Data Structures II (L1)

Quiz # 04

1. **[08 points]** Build a compressed trie for the set of strings given below:
{ happy, hand, blue,bloom, clue, blast,handsome,catch, patient,patience,patties }

You may first want to build a trie and then convert it into a compressed one.

Note that some of the strings in the given set are prefix of other strings. How would you handle that case and still maintain a valid trie?

2. **[02 points]** What is the complexity of searching for a word in a trie? Discuss.
3. **[06 points]**
 - a) What is the benefit of using inverted index over term-document incidence matrix?
 - b) Can you implement an inverted index using Tries? If yes, how? If no, why not?
4. **[04 points]** How is rareness of a word quantified in tf-idf score? Why is it important to quantify the rareness?