CS32 Nachenberg – Project 4

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1. Bugs

-2nd test case not working

-not comparing it to fragment, it literally takes the matches after fragment

1. Each method satisfies big O requirements?
2. std::vector<ValueType> Trie<ValueType>::find(const std::string& key, bool exactMatchOnly) const

follows the root node

traverses through children vector of root node

finds if first letter of key exists in children of root node

if doesn’t exist, return an empty vector

otherwise follow that child node

call findhelper (recursive helper function\*) on that child node

return the vector with all the possibilities found

\*My helper function:

void Trie<ValueType>::findhelper(const std::string& key, bool exactMatchOnly, Node\* current, std::vector<ValueType>& result) const

if hit bottom Node of Trie

add the values of that Node into result

traverse through the children vector of current node

finds children node that matches first letter of key

then recursively calls itself on key an index over and passing in the child node

if finds mismatch

if exactMatchOnly is false, recursively calls itself changing exactMatchOnly to true

else keeps searching for a match

bool GenomeMatcherImpl::findGenomesWithThisDNA(const string& fragment, int minimumLength, bool exactMatchOnly, vector<DNAMatch>& matches) const

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