

Abstract

Autocomplete in the search box associated with a large of data. So when do the search phrase / word in the database there are constraints, which when all the phrases must be traced to obtain the results and there is a connection between the server and client, this would overload the server's performance. Accordingly, a methods are needed specifically in terms of data retrieval, so that the process is lightweight and fast. One that can be done by using a patricia tree data structure.

Patricia tree is based on the use of a search performed on the initial phrase of the whole phrase desired. So when do a search on the patricia tree, no need to browse through all the patricia tree structure, simply on the structure of the character originally patricia tree corresponding course. Patricia tree at this node is built can be weighted, so that in this case the appearance of suggestion can be prioritized based on its weight.

After testing, this study provides results that patricia tree capable of providing search results more quickly than a prefix tree data structure as a comparison. The establishment of tree by assigning weights also gives better results in search accuracy.

Keywords: patricia tree, trie, autocomplete, search box.