

Menu driven: Your project should have a menu in the beginning. This is to ensure that your work can be tested by inserting, deleting and listing all words/prefixes. A possible menu is shown as follows:

TRIE PROJECT: Enter your choice?

- 1) Create an empty trie
- 2) Create a trie with initial letters
- 3) Insert a word
- 4) Delete a word
- 5) List all words that begin with a prefix
- 6) Size of the trie
- 7) End

A description for some of the operations is given as follows:

1) **Create an empty trie:** This will create an empty trie with no words at all.

2) **Create a trie with initial letters:** This will prompt the user for initial list of letters. Then it will generate all permutations of these letters and insert valid words in the trie. Here it has to be mentioned that the permutations can also be of shorter length than the list of letters and that no letter is to be repeated. For example, if the initial list of letters are "STOP", then "TOP" and "TOPS" are both valid permutations, but "STOPS" isn't.

3) **Insert a word:** This inserts a word into the trie.

4) **Delete a word:** This deletes a word from the trie. Suppose that your trie contains the words "TOP" and "TOPS", a deletion of "TOPS" will still retain the word "TOP" in the trie.

5) **List** all words that begin with a prefix

6) **Size of the trie:** This should count all nodes that have a valid letter in them. For example, the size of a trie with the words "TOP" and "TOPS" is 4.

7) **End**