**Problem Statement:**

Write a program to play the word game Boggle

**What is a Boggle game?**

Boggle is a word game designed by Allan Turoff and distributed by Hasbro. It involves a board made up of 16 cubic dice, where each die has a letter printed on each of its 6 sides. At the beginning of the game, the 16 dice are shaken and randomly distributed into a 4-by-4 tray, with only the top sides of the dice visible. The players compete to accumulate points by building *valid* words from the dice, according to these rules:

* A valid word must be composed by following a sequence of *adjacent dice*—two dice are adjacent if they are horizontal, vertical, or diagonal neighbors.
* A valid word can use each die at most once.
* A valid word must contain at least 3 letters.
* A valid word must be in the dictionary (which typically does not contain proper nouns).

**Steps:**

1.Firstly, we need to implement any string matching algorithm Trie or TST in order to fetch the words with required prefix

2.For example, If we are at 0rth index we need to check our adjacent diagonal like 00,01,10,11 words whether they are available in our word dictionary

3.In the beginning we put all the words in our data structure trie

4.Find the scores according to their word length.

5.Then we use depth first search traversal to get all words accordingly

6.If it is a valid word save that word in list

7.Get scores of individual word and add them that will be our final score.

**Code:**

<https://github.com/Manasa81/ADS2_2019501081/tree/master/Project3/BoggleFiles>

**Screenshot:**

