**Practical 3**

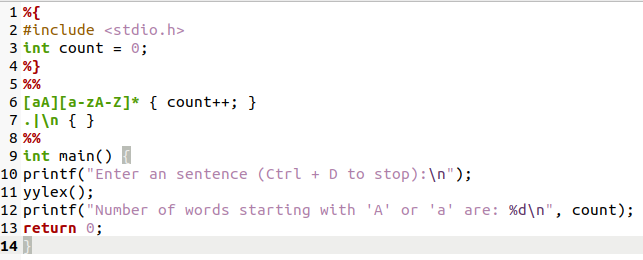
**Aim:** Count number of words starting with 'A'.

**Theory:** In this practical, the objective is to identify and count all the words that begin with the letter 'A' or 'a'. A word is considered to be a continuous sequence of alphabetic characters. The logic is implemented using LEX rules, where specific patterns are matched using regular expressions and corresponding actions are executed.

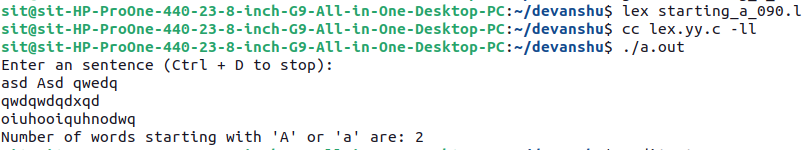
The regular expression [aA][a-zA-Z]\* is used to match words that start with 'A' or 'a' followed by zero or more letters (either uppercase or lowercase). Each time such a word is found, a counter is incremented.

This practical helps in understanding how pattern recognition can be efficiently handled using LEX, especially when dealing with case-sensitive pattern matching and word-based token recognition in textual data.

**Code:**



**Output:**



**Conclusion:** This practical demonstrates how LEX can be used to effectively count specific patterns such as words starting with a particular letter. It is especially useful in applications like lexical analysis, word processing tools, and case-sensitive pattern searching. Through this, we learned how regular expressions play a vital role in string pattern recognition.