

Project 4: Problem Statement

A Job Ready Bootcamp in C++, DSA and IOT

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Statement

The program created by user is divided into pieces and every token that is a part of it is extracted and stored separately (tokens are the smallest parts of a program).

There are several types of token which are associated with any language. The naming given by the user for several parts of the program like functions and variables is called identifiers. They are called as such because they “identify” a named storage location in the memory. Then comes keywords: a number of words used by the language for some of its functionality (In C++, these include words like cout, cin, if, else, for, break, continue, and so on). Punctuators are used for the construction of expressions and statements. They are useful only when used in conjunction with identifiers or keywords in a statement. Operators are used for performing actual operations with the data (like arithmetic, logical, and shift operations). Literals are constant data that the programs need to deal with, like numbers or alphabets (or a combination of both).

What we have to do?

- Create a c++ program which separates a program into its tokens and classify that tokens into identifiers, keywords, punctuators, operators, literals.

Test Case

```
Input: int sum = first_number + 4x
Output: int IS A KEYWORD
        sum IS A VALID IDENTIFIER
        = IS AN OPERATOR
        first_number IS A VALID IDENTIFIER
```

```
+ IS AN OPERATOR
4x IS NOT A VALID IDENTIFIER
```

How to take input and output ?



Use File handling, create a .c file and read each line of that file and take that line as an input.

Output

```
int IS A KEYWORD
sum IS A VALID IDENTIFIER
= IS AN OPERATOR
first_number IS A VALID IDENTIFIER
+ IS AN OPERATOR
4x IS NOT A VALID IDENTIFIER
```

Points to be Noted:

- Proper Menu Driven Program
- Creation and Updation of File should be included in your program itself. (**Implement** **Create, Read, Update operations using file handling**)
- Upload Your Project on Github.
- Make sure that your project should be user friendly.

Learning In Public (Active Learning)

(😊 Well, This is an optional segment)

If you learned something new from this project.

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Facing Issues 😊

If you are facing any issues, please reach out to us at adityachaudhary@ineuron.ai



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