

Problem Description:

In this assignment, your job is to program a simple lexical analyzer that will build a symbol table from given stream of chars. You will need to read a file named "input.txt" to collect all chars. For simplicity, input file will be a C program without headers and methods. Then you will identify all the numerical values, identifiers, keywords, math operators, logical operators and others [distinct]. See the example for more details. You can assume that, there will be a space after each keywords. But, removal of space will add bonus point.

Input:

```
int a, b, c;
float d, e;
a = b = 5;
c = 6;
if ( a > b)
{
    c = a - b;
    e = d - 2.0;
}
else
{
    d = e + 6.0;
    b = a + c;
}
```

Output:

Keywords: int, float, if, else

Identifiers: a, b, c, d, e

Math Operators: +, -, =

Logical Operators: >

Numerical Values: 5, 6, 2.0, 6.0

Others: , ; () { }