2023暑期Python课第二次课下测试 / 编程题 / **5.** 第二次作业编程第五题

【Problem Description】

There is a method to compare whether two programs are similar: extract the control structure information in the program according to the order of appearance to form a control flow string, and then calculate the similarity between the two programs according to the control flow string of the two programs.

Write a program to extract the control flow string of a C program. Only *if, else, for, while, switch, case* are considered, and other control flow words should be ignored. The processed C program satisfies:

1. Can be compiled by C;

2. There may be multiple statements in one line;

3. Comments, string constants and other identifiers do not contain control flow keyword strings;

【Input Format】

The C program to be processed is saved in the current directory, and the file name is: *in.c*.

【Output Format】

Output control flow keyword strings to the *out.txt* file in the current directory in the order of appearance, **without** any separator between keywo

If there is no control flow keywords, output *No answer* to the file.

【Input Sample 1】

Suppose the content of *in.c* in the current directory is:

```
#include <stdio.h>
int main()
{
    int n,a,c1,c2,i;
    scanf("%d",&n);
    c1=c2=0;
    for ( i=0; i<n; i++ )
    {
        scanf("%d",&a);
        if ( a>=0 )
            c1++;
        else
            c2++;
    }
    printf("%d %d",&c1,&c2);
}
```

【Output Sample 1】

The *out.txt* file will be created in the current directory and its content should be:

```
forifelse
```

【Input Sample 2】

If the *in.c* source program style in the current directory is not very good, the content is as follows:

```
#include <stdio.h>
main()
{
int a,b,max,min;
scanf("%d%d",&a,&b);
if(a>b){max=a;min=b;}else if(a<b){max=b;min=a;}else{max=min=a;}
printf("%d %d",max,min);
}
```

【Output Sample 2】

The ***out.txt*** file will be created in the current directory and its content should be:

```
ifelseifelse
```

【Explanation】

The source program in sample 1 contains three control flow keywords: for, if, and else.

The source program in sample 2 contains four control flow keywords: if, else, if, else.

Output them in order to ***out.txt***.

Hint: When reading identifiers from *in.c*, characters other than letters, numbers, and underscores can be used as identifier separators.

提交源文件 　选择文件　未选择任何文件　　　提 交

注意: 只能用 PYTHON 语言编写程序。 如果有多个源文件，压缩成 `rar` 或者 `zip` 包提交。如果用Python多源文件，包内必须包含 `__main__.py` 文件。

运行结果

[下载源文件](#)

最后一次提交时间:2023-06-29 16:39:08

共有测试数据:5
平均占用内存:8.978K　平均CPU时间:0.14330S　平均墙钟时间:0.14369S

测试数据	评判结果
测试数据1	完全正确
测试数据2	完全正确
测试数据3	完全正确
测试数据4	完全正确
测试数据5	完全正确