

SE106, Fall 2012

Homework 1: Warm up

Assigned: September 8
Due: September 16 24:00

Introduction

For all labs, we will use Stanford C++ Libraries. You can get online and offline documentation from our site: <http://tcloud.sjtu.edu.cn/courses/se106/index.php>.

If you have any questions about this course or homework, feel free to post them on our Q&A forum: <http://tcloud.sjtu.edu.cn/courses/se106/qa/>. You are also encouraged to share your knowledge and help others in our Q&A forum.

In homework1, you will implement three methods using the API provided by the library. With the help of the library, you only need to write a few lines to complete the following tasks.

Note: You only need to modify `TryTokenScanner.h` and `TryTokenScanner.cpp`.

Part I: allTokens

```
Vector<string> TryTokenScanner::allTokens(string text);
```

Implement `allTokens` method. This method should accept a string and return its token list. You can get tokens by calling `TokenScanner::nextToken()` repeatedly until it reaches the end of the string.

For example, input "Hello world! "; It should return {"Hello", " ", "world", "!"}.

Part II: noWhiteSpaces

```
Vector<string> TryTokenScanner::noWhitespaces(string text);
```

Implement `TryTokenScanner` method. This method should accept a string and return its token list. This time, whitespaces are not taken as tokens and thus should be ignored. You may remove whitespace tokens from the token list returned by `allTokens()` you

implemented, or find an API from `TokenScanner` to let the scanner ignore whitespaces during its parsing. Be care that whitespaces include space, tab and newline if you choose to remove whitespaces from the token list by yourself.

For example, input `"Hello !\nWorld!"`; It should return `{"Hello", "!", "World", "!"}`.

Part III: noComments

```
Vector<string> TryTokenScanner::noComments(string text);
```

This method should accepts a string and return its token list. C style comments (and the content commented out) are not taken as tokens and thus should be ignored. You should use an API from `TokenScanner` to let the scanner ignore comments during its parsing.

For example, input `"Hello/* World */!"`, it should return `{"Hello", "!"}`.

Hand in

You only need to turn in your `TryTokenScanner.cpp` and `tokenscanner.h` file. Do NOT turn in other files or folders. For this assignment, you should turn in via:

```
$ turnin homework1@cplusplus TryTokenScanner.h TryTokenScanner.cpp
```

You should always submit `TryTokenScanner.h`, even if you didn't modify it.

Your homework must be submitted via testbed. Do NOT forget run `turnin` command after upload files to testbed.

Note: Command `turnin` is **NOT** incremental, which means that each time you have to specify **ALL** files that you want to submit.