

# Project 1 实验报告

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```
6   int lineNum = 0;           // 行号
7   std::string fileLocation = ""; // 文件位置
8   bool startOfLine = false;   // 是否为一行的第一个非 whitespace token
9   bool leadingSpace = false;  // token 前是否有 whitespace
```

```
73   if (tokenTypeName == "LineAfterPreprocessing") {
74       std::string s = token->getText();
75       fileLocation = s.substr(s.find('"')+1, s.rfind('"')-s.find('"')-1 );
76       lineNum = 0;
77       for (int i=2;s[i]!=' ';i++) // 计算文件的起始行号
78       {
79           lineNum = lineNum*10 + s[i] - 48;
80       }
81
82       lineNum--; // Newline会++
83   }
```

```
85   if (tokenTypeName == "Newline") { // 更新信息
86       startOfLine = true;
87       leadingSpace = false;
88       lineNum++;
89   } else if (tokenTypeName == "Whitespace") {
90       leadingSpace = true;
91   }
92
93   if (tokenTypeName == "LineAfterPreprocessing" || tokenTypeName == "Whitespace" || tokenTypeName == "Newline") {
94       return;
95   }
96
97   int col = token->getCharPositionInLine() + 1; // 从1开始
98
99   std::string locInfo = "Loc=" + fileLocation + ":" + std::to_string(lineNum) + ":" + std::to_string(col) + ">";
100
```

```
[build] task1
[build] 总分（加权）：100.00/100.00
[build] =====
[build] 成绩单已保存： /workspaces/SysU-lang2/build/test/task1/score.txt
[build] [CON] 格式：[SYsU-Lang2-0.0.0] 生成代码为：0
[driver] 生成完毕：00:00:00.559
[build] 生成已完成，退出代码为：0
```

```
main.cpp M SysU_lang.g4 M output.txt X
build > test > task1 > functional-0 > 000_main.sysu.c > output.txt
1 int 'int' [StartOfLine] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:1:1>
2 identifier 'main' [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:1:5>
3 l_paren '(' Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:1:9>
4 r_paren ')' Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:1:10>
5 l_brace '{' Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:1:11>
6 return 'return' [StartOfLine] [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:2:5>
7 numeric_constant '3' [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:2:12>
8 semi ';' Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:2:13>
9 r_brace '}' [StartOfLine] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:3:1>
10 eof '' [StartOfLine] Loc=</workspaces/SysU-lang2/test/cases/functional-0/000_main.sysu.c:4:1>
11
```

```
main.cpp M SysU_lang.g4 M output.txt X
build > test > task1 > functional-0 > 001_var_defn.sysu.c > output.txt
1 int 'int' [StartOfLine] Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:1>
2 identifier 'a' [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:5>
3 equal '=' [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:7>
4 numeric_constant '3' [LeadingSpace] Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:9>
5 semi ';' Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:10>
6 int 'int' [StartOfLine] Loc=</workspaces/SysU-lang2/test/cases/functional-0/001_var_defn.sysu.c:2:11>
```

