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CSCI 4355

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## User Manual

1. The Language to be used is Java.
2. The IDE used was Apache NetBeans IDE 19.
3. The java file to execute is named "PLCProject2nditeration.java"
4. Line 1 has the package as "smallprogramminglanguage" so make sure that matches with whatever folder you move the files within the SmallProgrammingLanguage folder to. (If you just extract the zip and execute it from within there it should work perfectly fine)

```
1 package smallprogramminglanguage;
```

5. Line 64 reads: `in_fp = new File("TestCases/input1.txt");`

This will execute the first test file "input1.txt". You can change it from 1-6 to test all those other test cases. There is also a test case that was not created by the professor labeled "ExprTest.txt" that you can test.

```
63 //open the file for reading and process its contents
64 in_fp = new File("TestCases/input1.txt");
65 fileInputStream = new FileInputStream(in_fp);
66 inputStreamReader = new InputStreamReader(fileInputStream);
```

## Side notes

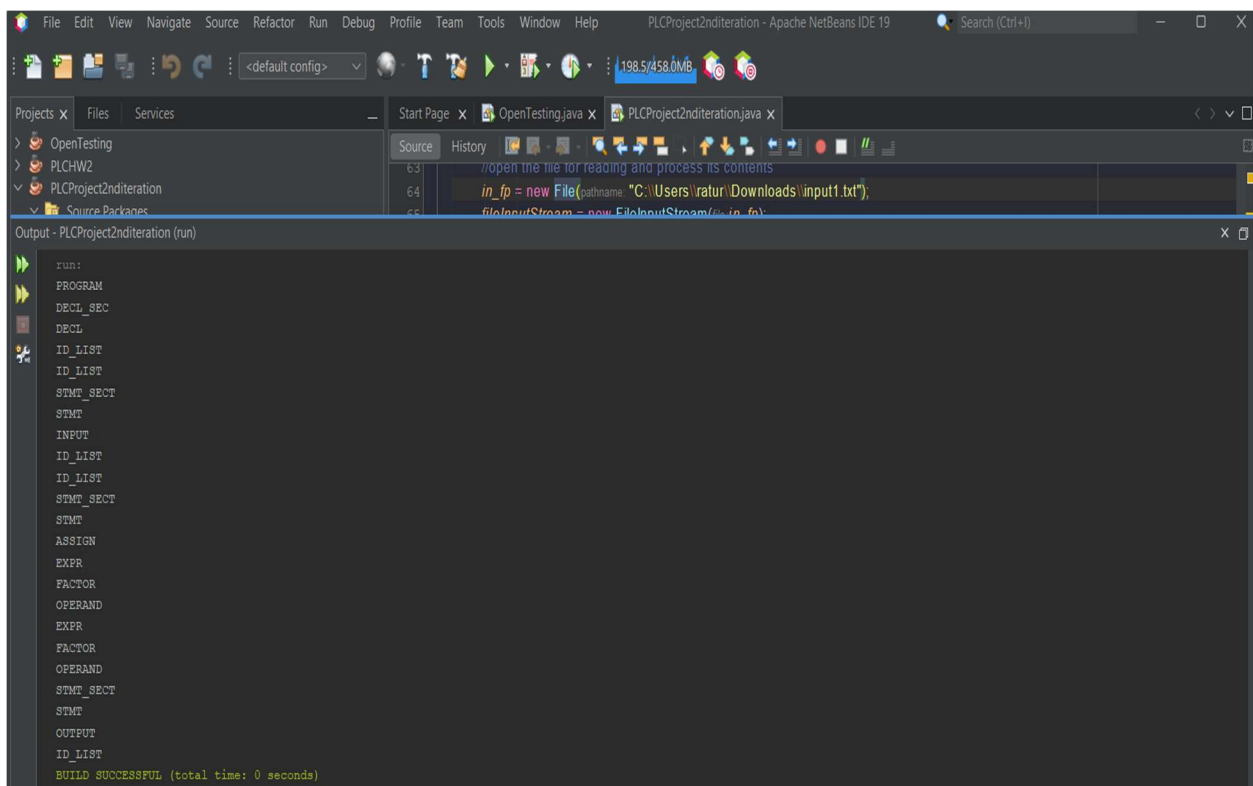
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- Some of these test cases intentionally had errors from the professor to test if our code was actually producing them properly.
- There must be no blank space before program at the start of the text file for this to work.
- Program is counted as its own separate line even if there is more after it on the same line in the text file.
- If an error happens it sometimes randomly appears higher up in the output window than it should. The error itself does still happen after whatever is at the bottom of the output window though.

## Results

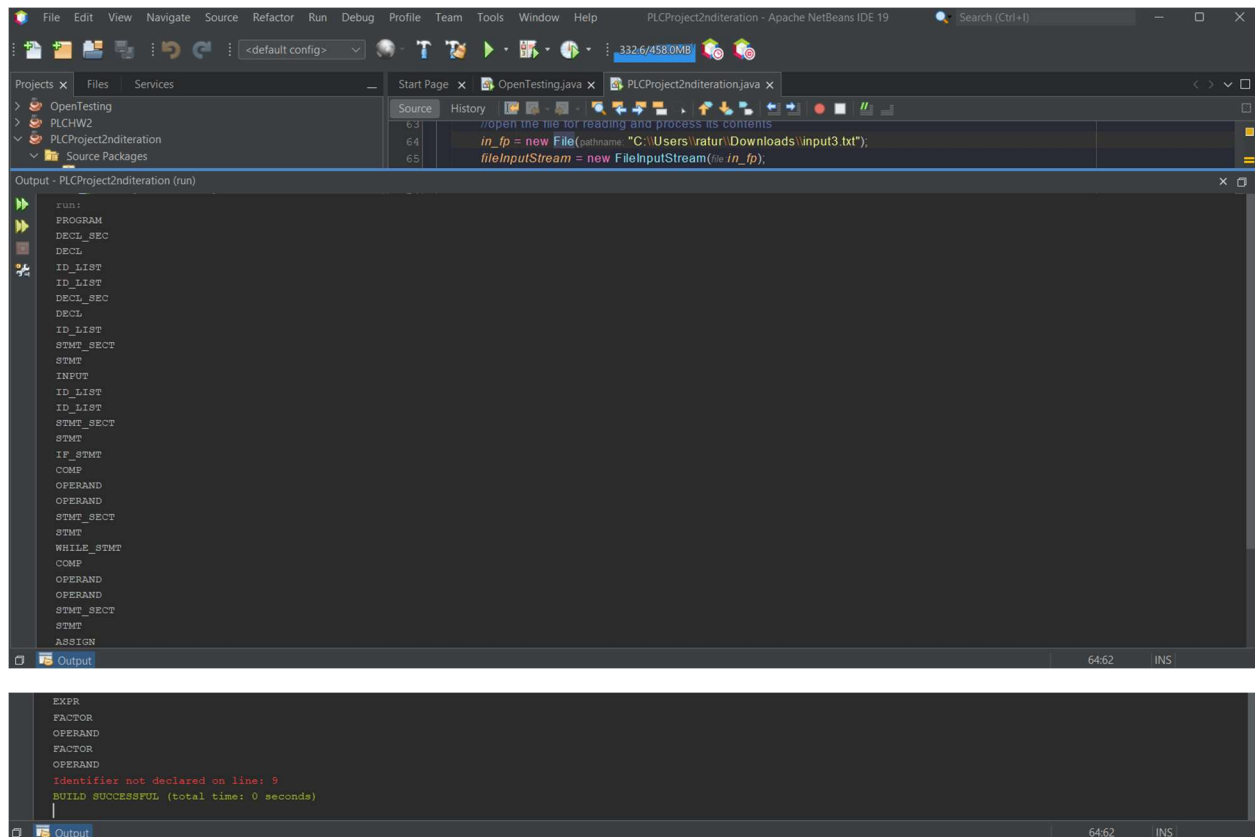
This section shows the correct results that the test case files should output taken straight from the professor. These are pictures from my code that shows it operates perfectly.

### Input1.txt Results





## Input3.txt Results



```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help PLCProject2nditeration - Apache NetBeans IDE 19 Search (Ctrl+I)
332.6/458.0MB
Projects Files Services
> OpenTesting
> PLCHW2
  PLCProject2nditeration
    Source Packages
Start Page x OpenTesting.java x PLCProject2nditeration.java x
Source History
63 //open the file for reading and process its contents
64 in_fp = new File(pathname: "C:\\Users\\vratu\\Downloads\\input3.txt");
65 fileInputStream = new FileInputStream(in_fp);
Output - PLCProject2nditeration (run)
run:
PROGRAM
DECL_SEC
DECL
ID_LIST
ID_LIST
DECL_SEC
DECL
ID_LIST
STMT_SECT
STMT
INPUT
ID_LIST
ID_LIST
STMT_SECT
STMT
IF_STMT
COMP
OPERAND
OPERAND
STMT_SECT
STMT
WHILE_STMT
COMP
OPERAND
OPERAND
STMT_SECT
STMT
ASSIGN
Output 64:62 INS
EXPR
FACTOR
OPERAND
FACTOR
OPERAND
Identifier not declared on line: 9
BUILD SUCCESSFUL (total time: 0 seconds)
Output 64:62 INS
```



## Input5.txt Results

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help PLCProject2nditeration - Apache NetBeans IDE 19 Search (Ctrl+I)
169.124580MB
Projects Files Services
OpenTesting
PLCHW2
PLCProject2nditeration
Source Packages
Start Page OpenTesting.java PLCProject2nditeration.java
Source History
63 //open the file for reading and process its contents
64 in_fp = new File(pathname "C:\\Users\\ratur\\Downloads\\input5.txt");
65 fileInputStream = new FileInputStream(in_fp);
Output - PLCProject2nditeration (run)
run:
PROGRAM
DECL_SEC
DECL
ID_LIST
ID_LIST
DECL_SEC
DECL
ID_LIST
STMT_SECT
STMT
INPUT
ID_LIST
ID_LIST
STMT_SECT
STMT
IF_STMT
COMP
OPERAND
OPERAND
STMT_SECT
STMT
WHILE_STMT
COMP
OPERAND
OPERAND
STMT_SECT
STMT
ASSIGN
64:62 INS
EXPR
FACTOR
OPERAND
FACTOR
OPERAND
STMT_SECT
STMT
ASSIGN
EXPR
FACTOR
OPERAND
EXPR
FACTOR
OPERAND
STMT_SECT
STMT
ASSIGN
EXPR
FACTOR
OPERAND
STMT_SECT
STMT
ASSIGN
EXPR
FACTOR
OPERAND
STMT_SECT
64:62 INS
STMT
OUTPUT
ID_LIST
ID_LIST
ID_LIST
BUILD SUCCESSFUL (total time: 0 seconds)
64:62 INS
```

## Input6.txt Results

