Imperial College London

Language Processors

Lab 1 – Comments and Variables

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Comments

Write a C++ program which reads a C source file, processes it in order to remove the comments (all kinds, see for instance the example input file `prog1.c`) and outputs the result into a new file.

Check out the documentation for these useful member functions of the `string` class: `find`, `replace`, `substr`.

Variables

Extend the application adding the processing of variable declarations after the comment removal stage, so that the program also outputs on screen what types are being declared and how many variables for each type.

Check out the documentation for the `map` STL container class.

For the example input file `prog1.c` the output on screen should be similar to:

```
char: 1
int: 3
```

Test your program writing other C source files to give as input.