========== START OF FILE ==========

```cpp
/*
 * CSc103 Project 5: Syntax highlighting, part one.
 * See readme.html for details.
 * Please list all references you made use of in order to complete the
 * assignment: your classmates, websites, etc.  Aside from the lecture notes
 * and the book, please list everything.  And remember- citing a source does
 * NOT mean it is okay to COPY THAT SOURCE.  What you submit here **MUST BE
 * YOUR OWN WORK**.
 * References:
 * Yassine Wardei - SEEK PAL Center
 *
 * Finally, please indicate approximately how many hours you spent on this:
 * #hours: ~9-10 Hrs.
 */

#include "fsm.h"
using namespace cppfsm;
#include <vector>
using std::vector;
#include <iostream>
using std::cin;
using std::cout;
using std::endl;

// make sure this function returns the old state.  See the header
// file for details.
int cppfsm::updateState(int& state, char c) {
        int old_state = state;  // save the old state in a new variable
        switch (state){
                case start:
                if (INSET (c, ident_st)){
                        state = scanid;
                }
                else if (INSET (c, num)){
                        state = scannum;
                }
                else if (INSET (c, iddelim)){
                        state = start;
                }
                else if (c == '/'){
                        state = readfs;
                }
                else if (c == '"'){
                        state = strlit;
                }
                break;
```

```
case scanid:
if (INSET (c, ident)){
        state = scanid;
}
else if (INSET (c, iddelim)){
        state = start;
}
else if (c == '/'){
        state = readfs;
}
else if (c == '"'){
        state = strlit;
}
break;

case comment:
state = comment;
break;

case strlit:
if (c == '"'){
        state = start;
}
else if (c == '\\'){
        state = readesc;
}
else{
        state = strlit;
}
break;

case readfs:
if (INSET (c, ident_st)){
        state = scanid;
}
else if (INSET (c, num)){
        state = scannum;
}
else if (c == '"'){
        state = strlit;
}
else if (c == '/'){
        state = comment;
}
break;

case readesc:
if (INSET (c, escseq)){
        state = strlit;
}
else{
        state = error;
}
break;

case scannum:
if (INSET (c, iddelim)){
        state = start;
}
else if (INSET (c, num)){
        state = scannum;
```

```
                }
                else if (c == '/'){
                        state = readfs;
                }
                else {
                        state = error;
                }
                break;
        }
        return old_state;
}
```

========== END OF FILE ==========