**DCU Engineering & Computing  
Assignment Submission**

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| **Student Name(s):** | **Alan Kehoe** |
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| **Programme:** | **CASE4 - BSc in Computer Applications (Sft. Eng.)** |
| **Project Title:** | **Lexical analyser** |
| **Module code:** | **CA448** |
| **Lecturer:** | **Dr. David Sinclair** |
| **Project Due Date:** | **11-NOV-2013** |

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| **Declaration**  **I the undersigned declare that the project material, which I now submit, is my own work. Any assistance received by way of borrowing from the work of others has been cited and acknowledged within the work. I make this declaration in the knowledge that a breach of the rules pertaining to project submission may carry serious consequences.**  **I am aware that the project will not be accepted unless this form has been handed in along with the project.** |

# Lexical analyser

# I started with defining all my tokens and types in the bottom of my Lexer.jj file. I started with keywords and then numbers. The identifiers are made up of underscore’s letters uppercase or lower case. And also can contain numbers. I then added the SKIP lines in order to tell my lexer to skip over newlines and whitespace. Comments should also be skipped with both inline comments and block comments being targeted with SKIP statements the code for the block comments was taken from your notes.

Another difficult token to define was the USER\_STRING token the string should allow for embedded quotation signs that are escaped by a \. However my token will do this I was not sure how I could remove the backslash from the string so for example

* "Hello \"to\" the World" will be recognized as a string but will keep the backslashes in it

The Java program handles file input or user input. Then the for each token in the file I print out the token type and the token if an invalid token is input there is a message to say Not valid and the token name.

I have included the compiled classes in the bin folder and the test files in the spec folder.