

At the beginning the program opens "tiny_sample_code.txt" . And create "scanner_output.txt" and make it writable.

Then the program enters an infinite loop to read character by character and terminate at the end of file.

The beginnig of an iteration in the loop corresponds to START state.

If the next charachter is white space then the iteration is completed and we are at the START state again, so I used continue.

If the next charachter is "{" then we are in INCOMMENT state, so I take the next character and the next one through a while loop till we have "}" which indicates the end of the comment. Again the iteration is completed, so go to the START state in the next iteration.

If the next charachter is a special symbol so just write it with this string ":special symbol" in the output file and the iteration is done.

If the next charachter is ":" so we are in INASSIGN state, so write "==" and the previous string and read the next character which is "=", so we are at the end of the iteration which corresponds to DONE state.

If the next charachter is a number so we are in INNUM state, and we read next character till we have something other than a digit, so we are in the DONE state, so write the number with this string ": number" in the output file.

I used a falg called "FromOther" to state that the token character isn't related to this state, but we will use this character in the next iteration.

The INID state is the same as INNUM state except we accept here letters not digits, and also we use here the same "FromOther" flag.