**Code Description:**

1-open input file to be read into a variable (content)

2-set 2 main variables

a)token in which we store the token characters until it’s completed in order to be processed(know its type)-🡪start with token=’’ then add the remaining chars

b)token\_type in which we store an integer addresses the token type its values are:

-1🡪indicating start

1🡪indicating comment

2🡪indicating string(identifier or reserved word)

3🡪indicating number

4🡪special symbol

3-go character by character over the whole (content) checking the new char and the token\_type

4-if we encounter a space/a new line or a char that starts a new state then call the(check\_last\_token\_type) function which does the following :

a)checks for the token\_type variable

b)if it’s a word checks if it’s a reserved word or an identifier

c)if it’s a symbol checks if it’s within our special symbols

d)saves the tokens and their type into a list each entity is a dictionary contains the token as a key and its type as a value

e)outputs the tokens and their types to an output file