Test Cases:

1. Write expected outputs and Outputs from our program.

Test on Lines of code in Assignment

There are 11 lines of code to be test and for each line I will outline what the output is:

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Enter string #1:

BEGIN

TOKEN#1 Keyword

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INTEG hum, humm, hummm, summation, multi

Enter string #2:

INTEG hum, humm, hummm, summation, multi

TOKEN#1 Keyword

#2 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#3 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#4 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#5 Identifier

#6 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#7 Identifier

//\*so this particular string should not output any errors, it should be printing Keywords and Identifiers

The problem lies within the comma\*/

----------------------------------------------------------

LET num = 5%2

Enter string #3:

LET num = 5%2

TOKEN#1 Identifier

TOKEN#2 Symbol

//\*The re-occuring error is that it should print out each Token but it skips over LET(keyword), 5%2 (prints error message)\*/

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Enter string #4:

LET numm = num -/ nummm

TOKEN#1 Identifier

TOKEN#2 Symbol

TOKEN#3 Identifier

TOKEN#4 Operator

#5 SYNTAX ERROR- two operators (\*,-,+,/) cannot be written together!

TOKEN#6 Identifier

INPUT num, numm, nummm

Enter string #5:

INPUT num, numm, nummm

TOKEN#1 Keyword

TOKEN#2 Identifier

#3 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#4 Identifier

#5 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#6 Identifier

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temp = <s/t>\*h – j / w – d+\* q / y

Enter string #6:

temp = <s/t>\*h – j / w – d+\* q / y

TOKEN#1 Symbol

TOKEN#2 Operator

TOKEN#3 Operator

#4 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#5 Operator

#6 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#7 Operator

#8 SYNTAX ERROR- two operators (\*,-,+,/) cannot be written together!

TOKEN#9 Operator

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Enter string #7:

summation = num + numm +nummm

TOKEN#1 Identifier

TOKEN#2 Symbol

TOKEN#3 Identifier

TOKEN#4 Operator

TOKEN#5 Identifier

TOKEN#6 Operator

TOKEN#7 Identifier

Enter string #8:

multi = num \* numm \*nummm

TOKEN#1 Identifier

TOKEN#2 Symbol

TOKEN#3 Identifier

TOKEN#4 Operator

TOKEN#5 Identifier

TOKEN#6 Operator

TOKEN#7 Identifier

WRITE summation, multi

Enter string #9:

WRITE summation, multi

TOKEN#1 Keyword

TOKEN#2 Identifier

#3 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#4 Identifier

//Everything works until the TOKEN #3 which does not print out

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WRITEE temp;

Enter string #10:

WRITEE temp;

#1 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

Enter string #11:

END

TOKEN#1 Keyword

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BUILD SUCCESS------------------------------

Tokenization & Characterization

Input strings:

* num

**Expected output:**

TOKEN#1 Identifier

**Program Output:**

TOKEN#1 Identifier

* LET INTEG REAL INPUT WRITE END

**Expected output:**

TOKEN#1 Keyword

TOKEN#2 Keyword

TOKEN#3 Keyword

TOKEN#4 Keyword

TOKEN#5 Keyword

**Program Output:**

TOKEN#1 Keyword

TOKEN#2 Keyword

TOKEN#3 Keyword

TOKEN#4 Keyword

TOKEN#5 Keyword

* -

**Expected output:**

TOKEN#1 Operator

**Program Output:**

TOKEN#1 Operator

* =

**Expected output:**

TOKEN#1 Symbol

**Program Output:**

TOKEN#1 Symbol

Semantic Error TC’S

Input strings:

* % $ < > $ % ! , ;

**Expected output:**

#1 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#2 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#3 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#4 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#5 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#6 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#7 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#8 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#9 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

**Program output:**

#1 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#2 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#3 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#4 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#5 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#6 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#7 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#8 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

#9 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

* num % numm

**Expected output:**

Tokenization and Error

**Program Output:**

TOKEN#1 Identifier

#2 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

TOKEN#3 Identifier

Syntax Error TC’s

Input test string:

* num + - num2

**Expected output:**

Tokenization and Error

**Program output:**

TOKEN#1 Identifier

TOKEN#2 Operator

#3 SYNTAX ERROR- two operators (\*,-,+,/) cannot be written together!

\*\*observation-doesn’t tokenize last word

* summation = num + numm + nummm ;

**Expected Output:**

Tokenization + Semi Colon at end of line error

**Program Output:**

TOKEN#1 Identifier

TOKEN#2 Symbol

TOKEN#3 Identifier

TOKEN#4 Operator

TOKEN#5 Identifier

TOKEN#6 Operator

TOKEN#7 Identifier

#8 SEMANTIC ERROR- symbol entered is not allowed! i.e(%,$,&,<,>$,%,!,;)

\*\*\* Observation- doesn’t specify semi colon at end of line error?

* 9 \* 1 + 6

**Expected output:**

Syntax error returned, no numbers allowed

**Program output:**

TOKEN#1 Operator

TOKEN#2 Operator

\*\*\*Observation No error returned for entered numbers

* WRITE summation

**Expected output:**

Tokenization and error on misspelled keyword

**Program Output:**

TOKEN#1 Identifier

\*\*\*Observation No error returned on misspelt word