Test Case 1:

Arts-MacBook-Pro:Lexer Arty$ python3.4 Lexer.py

Enter file you would like to open (type "quit" to exit): testcase1.txt

File open!

Contents of file:

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

while(fahr<celc):=15;

\_hello real world [ != ]

@@ while != real temp := 2.2;

&& @@ %%s5t4 4t e 221

12345 b98765 jkjkjk 123jka ?

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

Tokens Lexemes

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

keyword while

separator (

identifier fahr

operator <

identifier celc

separator )

operator :=

integer 15

separator ;

unknown \_hello

keyword real

identifier world

separator [

operator !=

separator ]

operator @@

keyword while

operator !=

keyword real

identifier temp

operator :=

real 2.2

separator ;

unknown &&

operator @@

unknown %%s5t4

integer 4

identifier t

identifier e

integer 22112345

unknown b98765

identifier jkjkjk

integer 123

identifier jka

unknown ?

Your Tokens and Lexemes have been saved as testcase1.RAT in the working directory.

**TEST CASE 2:**

Enter file you would like to open (type "quit" to exit): testcase2.txt

File open!

Contents of file:

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

/\* this is comment for this sample code which

converts Fahrenheit into Celcius\*/

function convert[fahr:int]

{

if (tired)

{

return 5\*(fahr-32)/9;

}

@@

int low,high,step; /\*decalrations\*/

@@

read(low,high,step);

while(low<high)

{

write(low);

write(convert[low]);

low:=low+step;

}

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

Tokens Lexemes

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

keyword function

identifier convert

separator [

identifier fahr

separator :

keyword int

separator ]

separator {

keyword if

separator (

identifier tired

separator )

separator {

keyword return

integer 5

operator \*

separator (

identifier fahr

operator -

integer 32

separator )

operator /

integer 9

separator ;

separator }

operator @@

keyword int

identifier low

separator ,

identifier high

separator ,

identifier step

separator ;

operator @@

keyword read

separator (

identifier low

separator ,

identifier high

separator ,

identifier step

separator )

separator ;

keyword while

separator (

identifier low

operator <

identifier high

separator )

separator {

keyword write

separator (

identifier low

separator )

separator ;

keyword write

separator (

identifier convert

separator [

identifier low

separator ]

separator )

separator ;

identifier low

operator :=

identifier low

operator +

identifier step

separator ;

separator }

Your Tokens and Lexemes have been saved as testcase2.RAT in the working directory.

**TEST CASE 3:**

Enter file you would like to open (type "quit" to exit): testcase3.txt

File open!

Contents of file:

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

@@

function greeting(type:string)

{

if (type == 'hello')

{

return : = 'Hi!';

}

else

{

return := 'rude';

}

}

@@

main():

{

string speak := input(user);

boolean valid = true;

get(greeting);

while (greeting == 'rude')

{

kick\_and\_run();

}

if(tired)

{

rest()

}

}

@@

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

Tokens Lexemes

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

operator @@

keyword function

identifier greeting

separator (

identifier type

separator :

identifier string

separator )

separator {

keyword if

separator (

identifier type

operator =

operator =

unknown 'hello'

separator )

separator {

keyword return

separator :

operator =

unknown 'Hi!'

separator ;

separator }

keyword else

separator {

keyword return

operator :=

unknown 'rude'

separator ;

separator }

separator }

operator @@

identifier main

separator (

separator )

separator :

separator {

identifier string

identifier speak

operator :=

identifier input

separator (

identifier user

separator )

separator ;

keyword boolean

identifier valid

operator =

keyword true

separator ;

identifier get

separator (

identifier greeting

separator )

separator ;

keyword while

separator (

identifier greeting

operator =

operator =

unknown 'rude'

separator )

separator {

identifier kick\_and\_run

separator (

separator )

separator ;

separator }

keyword if

separator (

identifier tired

separator )

separator {

identifier rest

separator (

separator )

separator }

separator }

operator @@

Your Tokens and Lexemes have been saved as testcase3.RAT in the working directory.

Enter file you would like to open (type "quit" to exit): quit