**CSE-4321- 900**

**Software Testing and Maintenance Project**

**Summary and Discussion**

1. **get\_token**
   1. [1,2,3,4]

**Input**: BufferedReader br = “”

**Output**: null

* 1. [1,2,3,5,6,7,8,6,9,10]

**Input**: BufferedReader br = “\t” or “\n” or “\r”

**Output**: null

* 1. [1,2,3,5,6,9,11,12,13]

**Input**: BufferedReader br = “)“

**Output**: “)“

* 1. [1,2,3,5,6,9,11,12,14,15,16,18,19,20,21]

**Input**: BufferedReader br = “””

**Output**: “””

* 1. [1,2,3,5,6,9,11,12,14,16,17,18,19,20,21]

**Input**: BufferedReader br = “;”

**Output**: “;”

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,24,25,26,28,23,29,30,31]

**Input**: BufferedReader br = “hello”

**Output**: “hello”

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,24,25,26,27,29,32,33,34]

**Input**: BufferedReader br = “hello[”

**Output**: “hello[“

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,29,32,35,36,38]

**Input**: BufferedReader br = “hello”

**Output**: “hello”

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,29,32,35,36,37,38]

Note: I removed the node 37, it would give the same result as the previous test case

**Input**: BufferedReader br = “hello

**Output**: “hello

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,29,32,35,39,40,41]

**Input**: BufferedReader br = “hello;”

**Output**: “hello”

* 1. [1,2,3,5,6,9,11,12,14,16,18,19,22,23,29,32,35,39,42]

**Input**: BufferedReader br = “;”hello”

**Output**: “;”

1. **is\_token\_end**
   1. [1,2]

**Input:** int str\_com\_id = 0, int res = -1

**Expected Output**: true

* 1. [1,3,4,5]

**Input:** int str\_com\_id = 1, int res = 34

**Expected Output**: true

* 1. [1,3,4,6]

**Input:** int str\_com\_id = 1, int res = 65

**Expected Output**: false

* 1. [1,3,7,8,9]

**Input:** int str\_com\_id = 2, int res = 13

**Expected Output**: true

* 1. [1,3,7,8,10]

**Input:** int str\_com\_id = 2, int res = 65

**Expected Output**: false

* 1. [1,3,7,11,12]

**Input:** int str\_com\_id = 3, int res = 40

**Expected Output**: true

* 1. [1,3,7,11,13,14]

**Input:** int str\_com\_id = 3, int res = 13

**Expected Output**: true

* 1. [1,3,7,11,13,15]

**Input:** int str\_com\_id = 3, int res = 65

**Expected Output**: false

1. **is\_keyword**
   1. [1,2]

**Input:** String str = “and”

**Expected Output:** true

**Actual Output**: true

* 1. [1,3]

**Input**: String str = “nor”

**Expected Output:** false

**Actual Output**: false

1. **is\_num\_constant**
   1. [1,7]

**Input:** String str = “ok”

**Expected Output:** false

**Actual Output**: false

* 1. [1,2,3,4,2,6]

**Input:** String str = “1ok”

**Expected Output:** false

**Actual Output**: false

* 1. [1,2,3,5]

**Input:** String str = “123”

**Expected Output:** true

**Actual Output**: true

1. **is\_str\_constant**
   1. [1,7]

**Input:** String str = “and”

**Expected Output:** false

**Actual Output**: false

* 1. [1,2,3,5,2,6]

**Input:** String str = ““””

**Expected Output:** true

**Actual Output**: true

* 1. [1,2,3,4]

**Input:** String str = ““hello”

**Expected Output:** false

**Actual Output**: true

1. **is\_identifier**
   1. [1,7]

**Input:** String str = “123”

**Expected Output:** false

**Actual Output**: true

* 1. [1,2,3,4,2,6]

**Input:** String str = “a1b3”

**Expected Output:** true

**Actual Output**: false

* 1. [1,2,3,5]

**Input:** String str = “aa@#”

**Expected Output:** false

**Actual Output**: false

1. **Main**
   1. [1,3,5]

**Input**: Main arguments should have 2 or more arguments. Example: main (“src/main\_test.txt”, “another\_argument”)

**Expected Output:** “Error! Please give the token stream\n”

* 1. [1,3,4,6,7,8,9,10,11,9,12]

**Input**: ;abc

**Expected Output:** “comment,\”;abc\”.\n”

* 1. [1,2,6,7,8,9,12]

**Input**: Main argument should have 1 argument that has the location of file. Example: main(“src/main\_test.txt”)

**Expected Output:**

"error,\"/hello\".\n"

+ "identifier,\"world\".\n"

+ "rsquare.\n"

+ "bquote.\n"

+ "quote.\n"

1. **is\_char\_constant**
   1. [1,2]

**Input**: #a

**Expected Output:** true

**Actual Output**: false

* 1. [1,3]

**Input**: #ab

**Expected Output:** false

**Actual Output**: true

1. **End to end coverage**
   1. [1,3,5]

**Input-** String [ ] args = [“src/end\_to\_end\_test.txt”, “too many arguments”]

**Output-** “Error! Please give the token stream.”

* 1. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 2], 2], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3 , 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  2. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 2], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 8], 4], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  3. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1,2 -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 2, 3, 5], 7 -> is\_num\_constant [ 1, 2, 6], 8], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  4. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2] -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 7], 6], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  5. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 2, 3, 4, 2, 6], 7 -> is\_num\_constant [ 1, 2, 3, 5], 8 -> is\_str\_constant [ 1, 7], 11 -> 11 -> is\_char\_constant [ 1, 2], 12], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 7-> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  6. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4] ,9 -> print\_token[ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 2, 3, 4, 2, 6], 7 -> is\_num\_constant [ 1, 7], 8 -> is\_str\_constant [ 1, 2, 3, 5, 2, 6], 11 -> is\_char\_constant [ 1, 3], 13 -> is\_comment [ 1, 2], 14], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1,

2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]

* 1. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2, open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9 -> print\_token [1,2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 2, 3, 4, 2, 6], 7 -> is\_num\_constant [ 1, 2, 3, 5], 8 -> is\_str\_constant [ 1, 2, 3, 5, 2, 6], 11 -> is\_char\_constant [ 1, 3],13 -> is\_comment [ 1, 3], 15], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1,

2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]

* 1. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 2 -> open\_character\_stream [ 1, 2, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4] ,9 -> print\_token [ 1, 2 -> token\_type [ 1 -> is\_keyword [ 1, 3], 3 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13], 5 -> is\_identifer [ 1, 2, 3, 4, 2, 6], 7 -> is\_num\_constant [ 1, 2, 3, 5], 8 -> is\_str\_constant [ 1, 2, 3, 4], 10], 3, 4, 5, 7, 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 7 -> get\_char [ 1, 2], 8, 6, 9, 10], 9, 12]
  2. [ 1, 2, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11,12 -> is\_spec\_symbol [ 1, 2], 13], 9, 12]
  3. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 10], 13], 9,12]
  4. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6,9 ,11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 12], 13], 9, 12]
  5. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1 , 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 14], 13], 9, 12]
  6. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 15, 16, 17, 18, 19, 20 -> unget\_char [ 1, 2], 21], 9, 12]
  7. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 24, 25 -> get\_char [ 1, 2], 26, 28, 23, 29, 30 -> unget\_char [ 1, 2], 31], 9, 12]
  8. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 4, 5], 24, 25 -> get\_char [ 1, 2], 26, 27, 29, 32 -> is\_spec\_symbol [ 1, 3, 4], 33 -> unget\_char [ 1, 2], 34], 9, 12]
  9. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 7, 8, 9], 24, 25 -> get\_char [ 1, 2], 26, 27, 29, 32 -> is\_spec\_symbol [ 1, 3, 4], 33 -> unget\_char [ 1, 2], 34], 9, 12]
  10. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 6],14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 7, 11 -> is\_spec\_symbol [ 1, 5, 6], 12], 24, 25 -> get\_char [ 1, 2], 26, 27, 29, 32 -> is\_spec\_symbol [ 1, 3, 4], 33 -> unget\_char [ 1, 2], 34], 9, 12]
  11. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11,12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 4, 6], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 36, 38], 9, 12]
  12. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 7, 8, 10], 29, 32 ->is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 36, 37, 38], 9, 12]
  13. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 3, 7, 11 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 14], 13, 15], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 42], 9, 12]
  14. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token[ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1, 2], 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9, 12]
  15. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1, 3, 4], 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9, 12]
  16. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1, 3, 5, 6], 9, 11, 13, 15], 10, 11 -> get\_token [ 1 ,2 -> get\_char [ 1, 2], 3, 4], 9, 12]
  17. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1, 3, 5, 7, 8], 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9, 12]
  18. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1 , 3, 5, 7, 9, 10], 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9, 12]
  19. [ 1, 3, 4, 6, 7 -> open\_token\_stream [ 1, 3 -> open\_character\_stream [ 1, 3, 4], 4], 8 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 5, 6, 9, 11, 12 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 14, 16, 18, 19, 22, 23 -> is\_token\_end [ 1, 2], 29, 32 -> is\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 13, 15], 35, 39, 40 -> unget\_char [ 1, 2], 41], 9 -> print\_token [ 1, 2, 3, 5, 7, 8 -> print\_spec\_symbol [ 1, 3, 5, 7, 9, 11, 12], 9, 11, 13, 15], 10, 11 -> get\_token [ 1, 2 -> get\_char [ 1, 2], 3, 4], 9, 12]

Input for the tests is present in a end\_to\_end\_file.txt file.

The output for these test paths would be-

"keyword,\"and\".\n"

+ "keyword,\"or\".\n"

+ "keyword,\"if\".\n"

+ "keyword,\"xor\".\n"

+ "keyword,\"lambda\".\n"

+ "keyword,\"=>\".\n"

+ "identifier,\"nand\".\n"

+ "lsquare.\n"

+ "string,\"123\".\n"

+ "rsquare.\n"

+ "error,\"’\".\n"

+ "bquote.\n"

+ "string,\"\".\n"

+ "string,\")\".\n"

+ "identifier,\"a12\".\n"

+ "error,\"a12\\0\".\n"

+ "identifier,\"a1b3\".\n"

+ "error,\"aa@#\".\n"

+ "error,\"12a\".\n"

+ "numeric,123.\n"

+ "string,\"123\\0\".\n"

+ "string,\"Hello\".\n"

+ "string,\"world\\0\".\n"

+ "error,\"\"Wow\".\n"

+ "character,\"a\".\n"

+ "error,\"#1\".\n"

+ "error,\"#abc\".\n"

+ "comment,\";hello\".\n"

+ "error,\"/hello\".\n"

+ "error,\"“hello\".\n"

+ "comment,\";”\".\n"

+ "error,\"“\".\n"

+ "comment,\";”hello”\".\n"

+ "string,\";\".\n"

+ "string,\"hello[\".\n"

+ "comment,\";hello\\n\".\n"

+ "comment,\";hello\\r\".\n"

+ "comment,\";hello\\t\".\n"

+ "lparen.\n"

+ "string,\"hello\".\n"

+ "rparen.\n