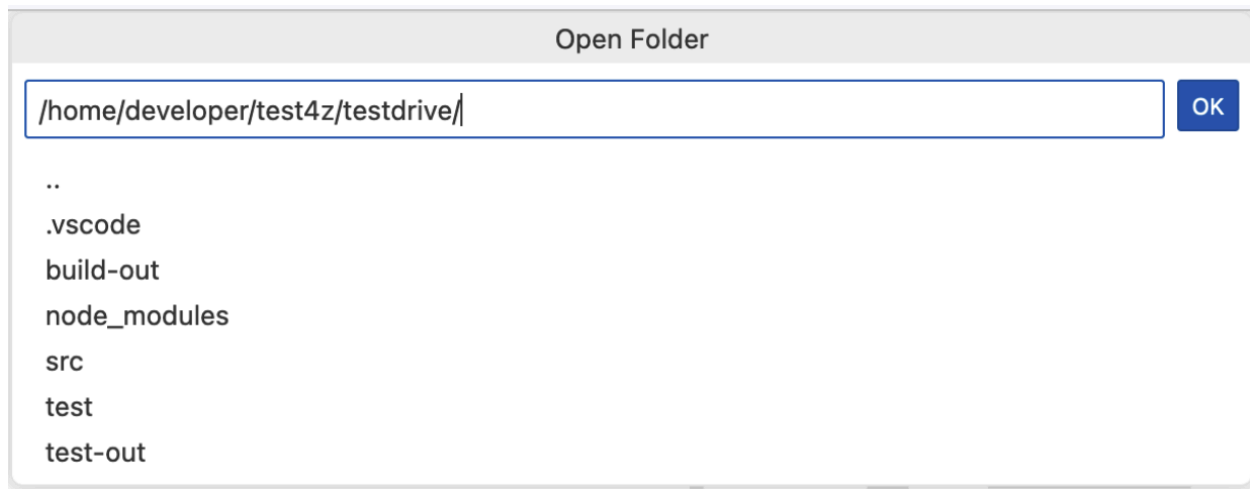
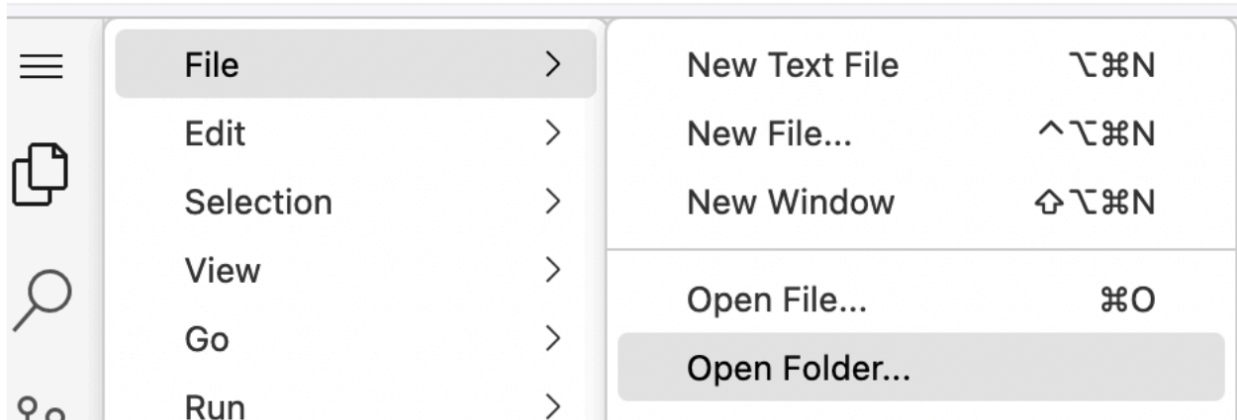


Test Challenge

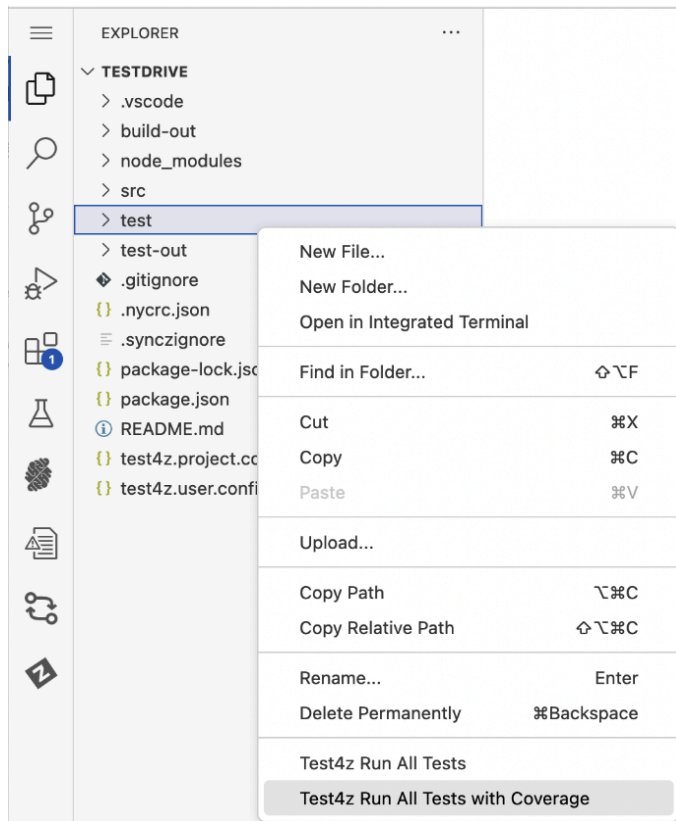
Test the DOGGOS application

From the VS Code Explorer, Open the TestDrive Folder. Reference screenshots:



Generate Test coverage report

Right click on the Test Folder and select “Test4z Run All Tests with Coverage”.
Reference screenshot:



This will generate the report.

```
● developer@ws-753461708474258-0:~/test4z/testdrive$ t4z test test/ZTTDOGWS.cbl --cov
Test4z CLI version: 1.0.1870-develop
Executing Endeavor Team Build on 10.1.2.55 to build and run tests...

PASS test/ZTTDOGWS.cbl
  ✓ ZTTDOGWS simple totals test (149 ms)

Tests Suites: 1 passed, 1 total
Tests: 1 passed, 1 total
Time: 0 s

Running tests completed successfully. For more details see files 'test-out/ZLMSG.txt' and 'test-out/SYSOUT'
Generating coverage report...

> report
> nyc report
```

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	84.78	75.47	100	84.26	
ZTPDOGOS.cbl	84.78	75.47	100	84.26	...175-176,186,195,198,201,206-207,214-215

A code coverage report has been created at 'coverage/index.html'.

Code Coverage

⌵

⌵

All files

84.78% Statements78/9275.47% Branches40/53100% Functions8/884.26% Lines75/89

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

File

⌵

Statements

⌵

Branches

⌵

Functions

⌵

Lines

⌵

ZTPDOGOS.cbl

84.78%

78/92

75.47%

40/53

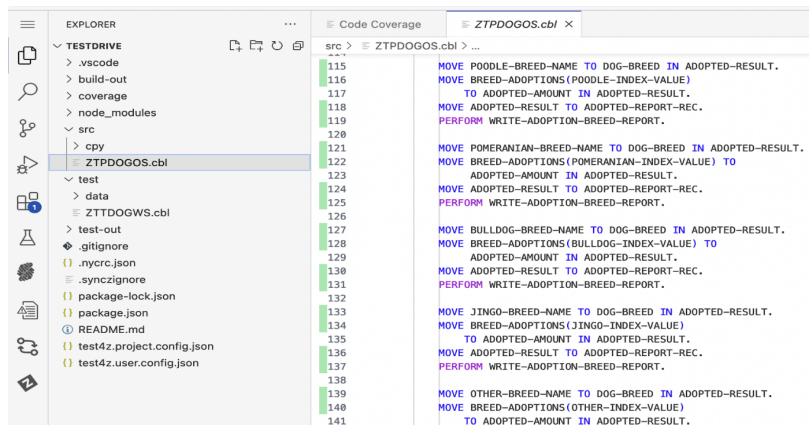
100%

8/8

84.26%

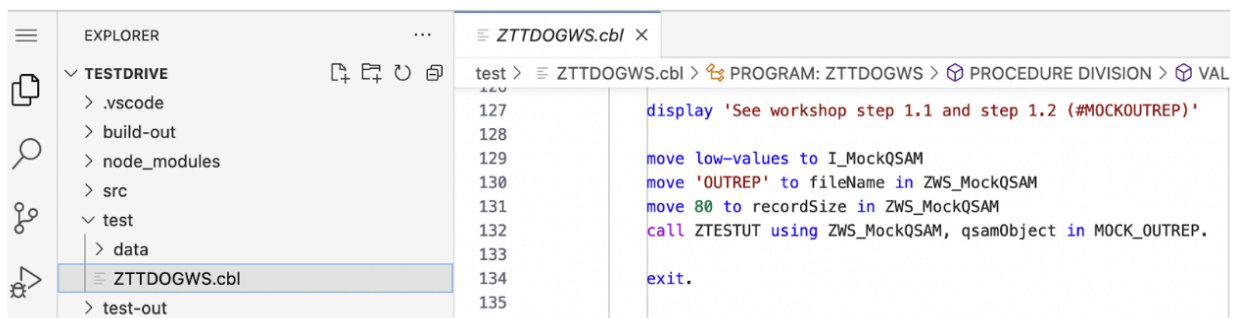
75/89

From the Explorer tab, Open the src folder.
 Open the source code file "ZTPDOGOS.cbl".
 VSCode Coverage Gutters in the source code file are observed.



Edit a Test case

Open the ZTTDOGWS.cbl file under test → data folder



Go to line number 196.
 Change the value from 9 to 900.

Reference screenshot:

```
194      display 'See workshop step 3.3 (#VALIDATEOUTREP)'  
195  
196      if OUTREP_SPY_WRITE_COUNT not = 900 then  
197          perform failOutrepWriteCount  
198      end-if
```

From the command line, run the “t4z” command.

Reference screenshot:



```
developer@ws-753461708474258-0:~/test4z/testdrive$ t4z  
Test4z CLI version: 1.0.1870-develop  
Executing Endeavor Team Build on 10.1.2.55 to build and run tests...  
  
FAIL test/ZTTDOGS.cbl  
x ZTTDOGS simple totals test (309 ms)  
Invalid OUTREP count from ZTTDOGS  
SYSOUT:  
See workshop step 1.3 (#LOADRECORDED)  
See workshop step 1.4 (#MOCKADOPPTS)  
See workshop step 1.1 and step 1.2 (#MOCKOUTREP)  
See workshop step 2.1 and step 2.2 (#REGISTERSPY)  
THIS PROGRAM WILL TOTAL ADOPTED ZTPDOGS BY BREED  
TODAY IS : 20240514  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED SHIBA WAS ADOPTED 008 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED SCHNAUZER WAS ADOPTED 000 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED CORGI WAS ADOPTED 007 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED CHI WAS ADOPTED 001 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED POODLE WAS ADOPTED 000 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED POMERANIAN WAS ADOPTED 000 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED BULLDOG WAS ADOPTED 000 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED JINGO WAS ADOPTED 006 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.2 (#SPYWRITE)  
BREED OTHER WAS ADOPTED 000 TIMES  
See workshop step 3.1 (#SPYCALLBACK)  
See workshop step 3.3 (#SPYCLOSE)  
See workshop step 3.3 (#VALIDATEOUTREP)  
OUTREP record count is 009  
  
Tests Suites: 1 failed, 1 total  
Tests: 1 failed, 1 total  
Time: 0 s  
  
ERROR Tests have failed. For more details see files 'test-out/ZLMSG.txt' and 'test-out/SYSOUT.txt'.
```

You will observe that the test run is a failure. Expected Record count is 9 whereas we edited the value to be 900.

Add statements to Test File

Open the ZTTDOGWS.cbl file under test → data folder

Go to line 51 (Be under the PROCEDURE DIVISION section). Reference Screenshot:

```
test > ZTTDOGWS.cbl ×
test > ZTTDOGWS.cbl > PROGRAM: ZTTDOGWS > PROCEDURE DIVISION
42      * Reference to ZTPDOGOS accumulator retrieved via ZWS_GetVariable.
43      1 ZTPDOGOS-ACCUMULATOR.
44      5 BREED-ADOPTIONS PIC 9(3) OCCURS 9 TIMES.
45
46      * Reference to ZTPDOGOS record from ZWS_SpyQSAM callback.
47      * (ADOPTED-REPORT-REC)
48      COPY ZTPDGARR.
49
50      PROCEDURE DIVISION.
51
52
53
```

Move the cursor to column 12.

Type "t4z me".

Note: It will start filling out the intellisense.

Select "t4z Message write".

Reference Screenshots:

```
50      PROCEDURE DIVISION.
51
52      t4z me
53      t4z Message write
54      ***** t4z MockESDS file
55      * Register t4z MockESDS file data t4z mock ESDS file with file data
56      ***** t4z MockESDS file recorded da... t4z mock ESDS file with re...
57      move l t4z LLMockESDS file low-level t4z low-level mock file ES...
58      set te t4z PrepareModule
59      move ' t4z MockKSDS file
60      call Z t4z MockKSDS file data t4z mock KSDS file with file data
61      t4z MockKSDS file with recorded d... t4z mock KSDS file wi...
62      * Note: Tes t4z MockQSAM file
63      * is prepar t4z MockQSAM file data t4z mock QSAM file with file data
64      t4z MockQSAM file with recorded d... t4z mock QSAM file wi...
```

This will fill in the code for the user.

```
49  
50      PROCEDURE DIVISION.  
51  
52          move low-values to I_Message in ZWS_Message  
53          move 'Your message' to messageText in ZWS_Message  
54          call ZTESTUT using ZWS_Message  
55  
--
```

Replace “Your Message” with “Hello Test4z” and save the file.

```
--  
50      PROCEDURE DIVISION.  
51  
52          move low-values to I_Message in ZWS_Message  
53          move 'Hello Test4z' to messageText in ZWS_Message  
54          call ZTESTUT using ZWS_Message  
55  
--
```

Go to line number 196.

Change the value from 900 to 9.

Reference screenshot:

```
194      display 'See workshop step 3.3 (#VALIDATEOUTREP)'  
195  
196      if OUTREP_SPY_WRITE_COUNT not = 9 then  
197          perform failOutrepWriteCount  
198      end-if
```

From the command line, Run “t4z”. Reference screenshot of command line output.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  EXPLORER FOR ENDEVOR

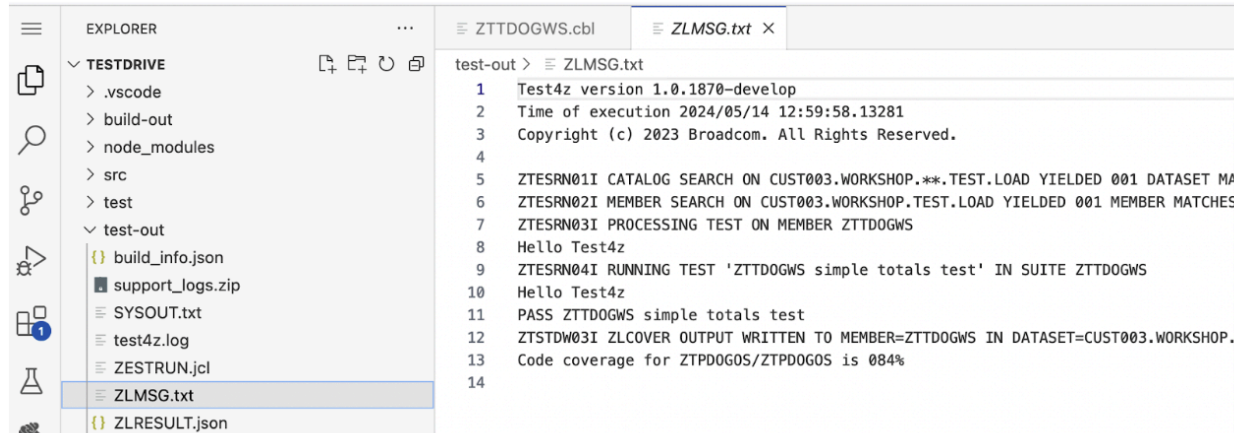
• developer@ws-753461708474258-0:~/test4z/testdrive$ t4z
Test4z CLI version: 1.0.1870-develop
Executing Endevor Team Build on 10.1.2.55 to build and run tests...

PASS test/ZTTDOGWS.cbl
✓ ZTTDOGWS simple totals test (129 ms)

Tests Suites: 1 passed, 1 total
Tests:        1 passed, 1 total
Time:         0 s

Running tests completed successfully. For more details see files 'test-out/ZLMSG.txt' and 'test-out/SYSOUT.txt'.
```

Select “ZLMSG.txt” file from the “test-out” folder. This file contains the statements that are added to the test files. You will see the “Hello Test4z” statement that was added.



Conclusion

This demo scenario shows how to generate a test coverage report, edit a test case and add statements to a test file.