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MiniDC TDD

Implementation Details:

We implemented miniDC in python 2.7 using python's built-in unittest module to do the testing. The file minidc.py contains the code for the calculator, the file run_minidc.py will run the calculator and the file test_minidc.py contains all the tests. In order to run the tests, one may run the file test_minidc.py directly and in order to run the calculator, one may run the file run_minidc.py.

At each run of the tests, one may see that the previous tests also run and pass.

The folder "Process Docs" contains all the steps taken to implement minidc with TDD and are numbered in order of implementation.They show the test, the test failing, the code that passes the test and the test passing.

Description of Tests:

1. test_push_number_domain_correct.txt
   This test is to show that the push_number pushes the data it is given onto the stack
2. test_add_domain_correct.txt
   This test is to show that the add function will correctly add two numbers when there are enough numbers on the stack.
3. test_subtract_domain_correct.txt
   This test is to show that the subtract function will correctly subtract two numbers when there are enough numbers on the stack.
4. test_multiply_domain_correct.txt
   This test is to show that the multiply function will correctly multiply two numbers when there are enough numbers on the stack.
5. test_divide_domain_correct.txt
   This test is to show that the divide function will correctly divide two numbers when there are enough numbers on the stack.
6. test_command_p_domain_correct.txt
   This test is to show that the command p functions when there are numbers on the stack.
7. test_command_n_domain_correct.txt
   This test is to show that the command n functions when there are numbers on the stack.
8. test_command_f_domain_correct.txt
   This test is to show that the command f functions when there are numbers on the stack.
9. test_add_domain_incorrect.txt
   This test is to show that an error is printed to stderr when you try to add less than two numbers.
10. test_subtract_domain_incorrect.txt
    This test is to show that an error is printed to stderr when you try to subtract less than

two numbers.

11. test_multiply_domain_incorrect.txt
    This test is to show that an error is printed to stderr when you try to multiply less than two numbers.
12. test_divide_domain_incorrect_1.txt
    This test is to show that an error is printed to stderr when you try to divide less than two numbers.
13. test_divide_domain_incorrect_2.txt
    This test is to show that an error is printed to stderr when you try to divide by zero.
14. test_command_p_domain_incorrect.txt
    This test is to show that an error is printed to stderr when you try to run command p with an empty stack.
15. test_command_n_domain_incorrect.txt
    This test is to show that an error is printed to stderr when you try to run command n with an empty stack.
16. test_command_f_domain_incorrect.txt
    This test is to show that an error is printed to stderr when you try to run command f with an empty stack.
17. test_execute_line_input_correct_1.txt
    This test is to show that the execute_line function will properly execute all numbers (whole and decimal) and arithmetic operations.
18. test_execute_line_input_correct_2.txt
    This test is to show that the execute_line function will properly execute all negative numbers (whole and decimal) and the three commands (n,f and p).
19. test_execute_line_input_correct_3.txt
    This test is to show that the execute_line function will properly execute all special case negative numbers (i.e. _ and _.)
20. test_execute_line_input_incorrect_1.txt
    This test is to show that the execute_line function will print an error to stderr when incorrect or unknown commands are given.
21. test_run_parameters_numbers_correct_1.txt
    This test is to show that the run function will properly execute multiple lines all with valid syntax that don't produce errors.
22. test_run_parameters_numbers_incorrect_1.txt
    This test is to show that the run function won't crash when an error is produced and that the error is printed to stderr.