

# ITSC-3155-TDD-Lab3

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## ITSC 3155 Test Driven Dev Lab 3

1. You need to provide screenshots of the GitHub repository for this code as well as the link(URL) to that.

<https://github.com/rchalla2/ITSC-3155-TDD-Lab3>

2. You need to provide screenshots of the test results (from PyCharm Terminal).

(Using VSCode) -

```
rishichalla@rishis-mbp ITSC-3155-TDD-Lab3 % pytest TestInvoice.py -v
===== test session starts =====
platform darwin -- Python 3.9.10, pytest-7.1.1, pluggy-1.0.0 -- /opt/homebrew/opt/python@3.9/bin/python3.9
cachedir: .pytest_cache
rootdir: /Users/rishichalla/Desktop/Personal/College/Spring 2022/ITSC 3155/ITSC-3155-TDD-Lab3
plugins: dash-2.3.0
collected 3 items

TestInvoice.py::test_CanCalculateTotalImpurePrice PASSED [ 33%]
TestInvoice.py::test_CanCalculateTotalDiscount PASSED [ 66%]
TestInvoice.py::test_CanCalculateTotalPurePrice PASSED [100%]

===== 3 passed in 0.00s =====
rishichalla@rishis-mbp ITSC-3155-TDD-Lab3 %
```

3. In TDD, how do we design a new test case? (Try to generalize what you learned in this activity.)

Design the test case based on the intended functionality for the code. For example in a C++ Game Engine using CTest, you may want a unit test to check a collision detection module. You'd want a separate collision test not only for every type of geometry capable of colliding but also every possible arithmetic scenario. For example with a ray-ray collision you'd want to account for both rays being parallel and create a separate test for it.

4. In this particular example, can you think about another new test case which could have been a new feature to be visualized based on customer request? You can brainstorm with your group and get help from TA's.

```
def test_CanCalculateTax(invoice, products, taxrate):
    assert invoice.totalTax(products, taxrate) == 0.34
```

Calculating tax rates may be a feature which could be added.

5. You need to provide a screenshot of output when you Run Main.py (as depicted in Figure 17)

(Using VSCode) -

```
rishichalla@rishis-mbp ITSC-3155-TDD-Lab3 % python3 Main.py
What is your product : pen
Please enter unit price : 1
Please enter quantity of product : 2
Discount percent (%) : 3
Another product? (y,n) : n
Your total pure price is: 1.94
rishichalla@rishis-mbp ITSC-3155-TDD-Lab3 %
```