Q3 - Testing

**Programming Exercise**

Krusty plans to use the program you have written in [Q1 - Payment Options](https://edstem.org/au/courses/7472/lessons/20704/slides/147644) to cancel orders by entering negative numbers as the ordered quantity. He requests to make sure that the program calculates the correct tax levied to ensure that the numbers are correct during the yearly tax filing exercise.

The improvements made to the program in [Q2 - Arrays: Lists and Tuples](https://edstem.org/au/courses/7472/lessons/20704/slides/147652) should be carried across to this question.

Tax rate cannot be negative and if a negative value is entered, the function must return 0.   
If the argument for total or rate is not numeric, raise a TypeError exception with an appropriate error message. Create test cases to verify that the get\_gst() function is behaving correctly by completing Table 1 in test\_plan.md. Then, implement all your test cases in the provided test driver program, test\_krusty.py. The unit tests for get\_gst() should raise an AssertionError if a test is not passed and should not raise an AssertionError if all tests pass.

You may add additional columns to the table but the following columns and its information must be present in your submission:

* **Test ID**: The identification number for each test case. This should be unique for each case.
* **Test Case Description**: A statement that includes the type of test and scope of test.
* **Inputs**: Exact data used as the input for this test case.
* **Expected Output**: The exact output of the unit or system after test execution. This can be specific values, error messages or messages to the terminal.
* **Status**: Outcome of testing - pass or fail.

All the test files that you have created must be included in the test folder as supporting evidence of your work and claims. Place the files used for testing each test case in the tests folder. The file name must be labelled in the following convention <test\_id>.in or <test\_id>.out. An example test case and its corresponding test files is given for [CS14 - Input ShOut.](https://edstem.org/au/courses/7472/lessons/20704/slides/147656)

Krusty is also worried that the Tax Man will accuse him of under-reporting his actual sales. Test your program thoroughly to check that the total amount calculated for each transaction is correct and report your findings to Krusty. Complete Table 2 to describe the test cases that you have used during testing and how you have generated the test results in this table.

**Workspace:**

**Graphical user interface, text, application, email

Description automatically generatedA picture containing graphical user interface

Description automatically generated**

**Graphical user interface, text, application, email

Description automatically generated**

**Graphical user interface, text, application

Description automatically generated**

**Graphical user interface, text, application

Description automatically generated**