Problem Statement:

Develop a multiplication program and perform Test Driven Development using python
And use the package unittest

User Stories:

1. **As a user i want to print the multiplication table of a given positive number**

   Test case :
   Input: 7
   Output:
   1 x 7 = 7
   2 x 7 = 14
   3 x 7 = 21
   4 x 7 = 28
   5 x 7 = 35
   6 x 7 = 42
   7 x 7 = 49
   8 x 7 = 56
   9 x 7 = 63
   10 x 7 = 70

2. **As a user i want to print the multiplication table of a given negative number**

   Test case :
   Input: -99
   Output:
   1 x -9 = -9
   2 x -9 = -18
   3 x -9 = -27
   4 x -9 = -36
   5 x -9 = -45
   6 x -9 = -54
   7 x -9 = -63
   8 x -9 = -72
   9 x -9 = -81
   10 x -9 = -90

3. **As a user i want to print the multiplication table of float**
   Test case :
   Input: 0.5
   Output:1 x 0.5 = 0.5
   2 x 0.5 = 1.0
   3 x 0.5 = 1.5
   4 x 0.5 = 2.0
   5 x 0.5 = 2.5
   6 x 0.5 = 3.0
   7 x 0.5 = 3.5
   8 x 0.5 = 4.0
   9 x 0.5 = 4.5
   10 x 0.5 = 5.0

4. **As a user i want to print the multiplication table of 0**

   Test case :
   Input: 0
   Output:
   Error: Input 'n' should be a integer.

5. **As a user i want to print the multiplication table of character**

   Test case :
   Input: a
   Output:
   Error: Input 'n' should be a integer.

Report:

Test Name	Test Description	Input	Expected output	Actual Output
test_table_size_positive	Perform multiplication for a positive number	7	1 x 7 = 7 2 x 7 = 14 3 x 7 = 21 4 x 7 = 28 5 x 7 = 35 6 x 7 = 42 7 x 7 = 49 8 x 7 = 56 9 x 7 = 63 10 x 7 = 70	1 x 7 = 7 2 x 7 = 14 3 x 7 = 21 4 x 7 = 28 5 x 7 = 35 6 x 7 = 42 7 x 7 = 49 8 x 7 = 56 9 x 7 = 63 10 x 7 = 70
test_table_size_negative	Perform multiplication for a positive number	-5	1 x -5 = -5 2 x -5 = -10 3 x -5 = -15 4 x -5 = -20 5 x -5 = -25 6 x -5 = -30 7 x -5 = -35 8 x -5 = -40 9 x -5 = -45 10 x -5 = -50	1 x -5 = -5 2 x -5 = -10 3 x -5 = -15 4 x -5 = -20 5 x -5 = -25 6 x -5 = -30 7 x -5 = -35 8 x -5 = -40 9 x -5 = -45 10 x -5 = -50
test_table_size_float	Perform multiplication for a floating point number	0.5	1 x 0.5 = 0.5 2 x 0.5 = 1.0 3 x 0.5 = 1.5 4 x 0.5 = 2.0 5 x 0.5 = 2.5 6 x 0.5 = 3.0 7 x 0.5 = 3.5 8 x 0.5 = 4.0 9 x 0.5 = 4.5 10 x 0.5 = 5.0	1 x 0.5 = 0.5 2 x 0.5 = 1.0 3 x 0.5 = 1.5 4 x 0.5 = 2.0 5 x 0.5 = 2.5 6 x 0.5 = 3.0 7 x 0.5 = 3.5 8 x 0.5 = 4.0 9 x 0.5 = 4.5 10 x 0.5 = 5.0
multiplyWithZero	Perform multiplication for 0	0	ValueError: Input 'n' should be a integer.	ValueError: Input 'n' should be a integer.
multiplyWithChar	Perform multiplication for a character	a	ValueError: Input 'n' should be a integer.	ValueError: Input 'n' should be a integer.

Summary:

1. test_table_size_positive() ➡ Passed
2. test_table_size_negative() ➡ Passed
3. test_table_size_float() ➡ Passed
4. multiplyWithZero() ➡ Passed
5. multiplyWithChar() ➡ Passed

Results:

```
.....
----------------------------------------------------------------------
Ran 5 tests in 0.002s

OK
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