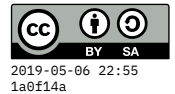


## Milestone 2: Unit testing



For this milestone, you will write some unit tests in Python for a function that I provide. There are *several* significant bugs in the function, so try to expose and characterize them!

Save the following file as `numberfmt.py` in your `cs164` folder, and commit it to gitlab. Also write comments in the file characterizing any bugs that you find. (You do not have to fix the bugs.)

```
import unittest

# Format an integer by separating chunks with the SEP
# string (defaults to comma), where each chunk is SIZE
# digits (defaults to 3).
#
# Examples:
#
# >>> formatInt(32767)
# '32,767'
# >>> formatInt(1948576, size=4)
# '194,8576'
# >>> formatInt(1948576, sep="::")
# '1::948::576'
def formatInt(num, sep="," , size=3):
    # Preconditions: violating these doesn't indicate a test failure.
    assert type(num) == int
    assert type(sep) == str
    assert type(size) == int and size >= 0
    # Implementation
    chunk = 10 ** size
    groups = [str(num % chunk)]
    num = num // chunk          # integer division
    while num > 0:
        groups.insert(0, str(num % chunk)) # prepend
        num = num // chunk
    return sep.join(groups)

class FormatTests(unittest.TestCase):
    def testFiveDigitWithDefaults(self):
        self.assertEqual(formatInt(32767), "32,767")
```

*# Add more test methods here!*

```
if __name__ == "__main__":  
    unittest.main()
```