Assignment Solutions 1 Lab 50

assignment50_1.py

```
#!/usr/bin/env python3
""" Pay close attention the specification and our style guide
as you code these little functions:
"""
def JudgeNumber(number):
    """Returns the number formatted to one decimal place
    in the sentence "Good number <number>."
    """
    return f"Good number {number:.1f}."

def PrintSillySentence(noun, verb):
    """prints "All of our <the noun> wanted to <the verb>."
    """
    # There is no way to test if the inputs are, in fact,
    # a noun and a verb.
    print(f"All of our {noun} wanted to {verb}.")

def main():
    print("""
Testing JudgeNumber:""")
    for number in (2, 8.3, 'x'):
        try:
            print(JudgeNumber(number))
        except ValueError:
            print(f"JudgeNumber did not like {number}.")
    print("""
Testing PrintSillySentence:""")
    for noun, verb in (("cherry", "run"), (3, 2)):
        PrintSillySentence(noun, verb)
main()
```



```
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Testing JudgeNumber:
Good number 2.0.
Good number 8.3.
JudgeNumber did not like x.

Testing PrintSillySentence:
All of our cherry wanted to run.
All of our 3 wanted to 2.
$
```

assignment50_2.py

```
#!/usr/bin/env python3
"""Temperature Conversions"""

def CentigradeToFahrenheit(centigrade):
    return round(32 + 9*centigrade/5)

def FahrenheitToCentigrade(fahrenheit):
    return round((fahrenheit - 32)*5/9)

def ShowConversion():
    """Prints two charts:  Centigrade to Fahrenheit;
    and Fahrenheit to Centigrade."""

    print("  C ->     F")
    for centigrade in range(0, 101, 10):
       print(f"{centigrade:3} -> {CentigradeToFahrenheit(centigrad
e):5}")
    print()
    print("----")
    print()
    print("  F ->     C")
    for fahrenheit in  range(0, 221, 10):
        print(f"{fahrenheit:3} -> {FahrenheitToCentigrade(fahrenhe
it):5}")
    print()

def TestConversions():
    """This function, if all is well, produces no output at all.
    That is the goal for a testing function.
    """
    for fahrenheit in range(0, 221):
        centigrade = FahrenheitToCentigrade(fahrenheit)
        check_fahrenheit = CentigradeToFahrenheit(centigrade)
        if abs(fahrenheit - check_fahrenheit) > 1:
            print(f"Not good with {fahrenheit} --> {centigrade} --
> {check_fahrenheit}")

TestConversions()
ShowConversion()
```



```
$ assignment50_2.py
  C ->     F
  0 ->    32
 10 ->    50
 20 ->    68
 30 ->    86
```

```
 40 ->   104
 50 ->   122
 60 ->   140
 70 ->   158
 80 ->   176
 90 ->   194
100 ->   212
----

  F ->     C
  0 ->   -18
 10 ->   -12
 20 ->    -7
 30 ->    -1
 40 ->     4
 50 ->    10
 60 ->    16
 70 ->    21
 80 ->    27
 90 ->    32
100 ->    38
110 ->    43
120 ->    49
130 ->    54
140 ->    60
150 ->    66
160 ->    71
170 ->    77
180 ->    82
190 ->    88
200 ->    93
210 ->    99
220 ->   104
```