

Lab 9C

Lab 9C - Code

IC_Bug.py

```
bugDemo.py IC_Bug.py
1 class Bug:
2     def __init__(self, initialPosition):
3         self._start = initialPosition
4         self._currentPosition = 1.0
5
6     def turn(self):
7         self._start = -abs(self._start)
8         return self._start
9     def move(self):
10        finalPosition = 0.0
11        positiveNumber = 1.0
12        negativeNumber = -abs(0.1)
13        if self._start >= 0.0:
14            finalPosition = self._start + positiveNumber
15            self._start = finalPosition
16            return self._start
17        elif self._start < 0.0:
18            finalPosition = self._start + 1.0
19            self._start = abs(finalPosition)
20            return self._start
21    def getPosition(self):
22        return self._start
23
```

Line 23 Col 0 - 2 new notifications

bugsDemo.py

```
bugDemo.py IC_Bug.py
1 def main():
2     from IC_Bug import Bug
3     bugsy = Bug(10.0)
4     bugsy.move()
5     print("Expected %d: Actual: %d"
6           % (bugsy.getPosition(), bugsy.getPosition()))
7     bugsy.turn()
8     bugsy.move()
9     print("Expected %d: Actual: %d"
10           % (bugsy.getPosition(), bugsy.getPosition()))
11 main()
12
```

Line 12 Col 0 -

Lab 9C - Output

Python Shell: Wing

Python Shell

Commands execute without debug. Use arrow keys for history.

```
Python 3.9.7 (default, Sep 16 2021, 16:59:28) [MSC v.1916 64 bit (AMD64)]
Type "help", "copyright", "credits" or "license" for more information.
>>> [evaluate bugsDemo.py]
Expected 11: Actual: 11
Expected 10: Actual: 10
>>>
```

Lab 9C - Written Code

IC_Bug.py

```
class Bug:
    def __init__(self, initialPosition):
        self._start = initialPosition
        self._currentPosition = 1.0

    def turn(self):
        self._start = -abs(self._start)
        return self._start

    def move(self):
        finalPosition = 0.0
        positiveNumber = 1.0
        negativeNumber = -abs(0.1)
        if self._start >= 0.0:
            finalPosition = self._start + positiveNumber
            self._start = finalPosition
            return self._start
        elif self._start < 0.0:
            finalPosition = self._start + 1.0
            self._start = abs(finalPosition)
            return self._start

    def getPosition(self):
        return self._start
```

bugsyDemo.py

```
def main():  
    from IC_Bug import Bug  
    bugsy = Bug(10.0)  
    bugsy.move()  
    print("Expected %d: Actual: %d"  
          % (bugsy.getPosition(), bugsy.getPosition()))  
    bugsy.turn()  
    bugsy.move()  
    print("Expected %d: Actual: %d"  
          % (bugsy.getPosition(), bugsy.getPosition()))  
main()
```