



## Unit Testing - Using *doctest*

In your **doctest-lab** folder, look at **BankAccount.py**. This program contains a class definition of a typical Bank Account, like we've seen already. The program contains comments describing what to write doctests for. For example, in the *balance* property:

```
""""
Test if invalid balance for setter (-1000) prints diagnostic
**** CODE STUFF HERE ****
'Value -1000 invalid for balance field; no change made'
""""
```

Write the doctest statements that will apply a test to produce the shown output.

There are two additional comment blocks: one in *make\_deposit* and the other in *transfer*. Complete these comment blocks with the appropriate doctest statements.

You may want to **run various commands in the shell** first to get the **exact** outputs.

**Next page has expected output.**

## Expected Output

```
D:\...>python solution.py -v
```

```
Trying:
```

```
    acct_4_test = BankAccount(100, "Joe Smith", 1_000)
```

```
Expecting nothing
```

```
ok
```

```
Trying:
```

```
    acct_4_test.make_deposit(-1000)
```

```
Expecting:
```

```
    Value -1000 invalid for deposit amount; no change made
```

```
ok
```

```
Trying:
```

```
    existing = acct_4_test.balance
```

```
Expecting nothing
```

```
ok
```

```
Trying:
```

```
    acct_4_test.make_deposit(200)
```

```
Expecting nothing
```

```
ok
```

```
Trying:
```

```
    new = acct_4_test.balance
```

```
Expecting nothing
```

```
ok
```

```
Trying:
```

```
    new == existing + 200
```

```
Expecting:
```

```
    True
```

```
ok
```

Trying:

```
acct_4_test = BankAccount(100, "Joe Smith", 1_000)
```

Expecting nothing

ok

Trying:

```
diff_acct = BankAccount(100, "Jane Doe", 1_000)
```

Expecting nothing

ok

Trying:

```
diff_acct.transfer(300, acct_4_test)
```

Expecting:

Account holders not the same; no changes made

ok

6 items had no tests:

```
__main__  
__main__.BankAccount  
__main__.BankAccount.__init__  
__main__.BankAccount.balance  
__main__.BankAccount.make_withdrawal  
__main__.BankAccount.print_acct_info
```

2 items passed all tests:

```
6 tests in __main__.BankAccount.make_deposit  
3 tests in __main__.BankAccount.transfer
```

9 tests in 8 items.

9 passed and 0 failed.

Test passed.