Project Part 3

Who:

Kevin Flynn
Jason Hill
Andrew Callahan
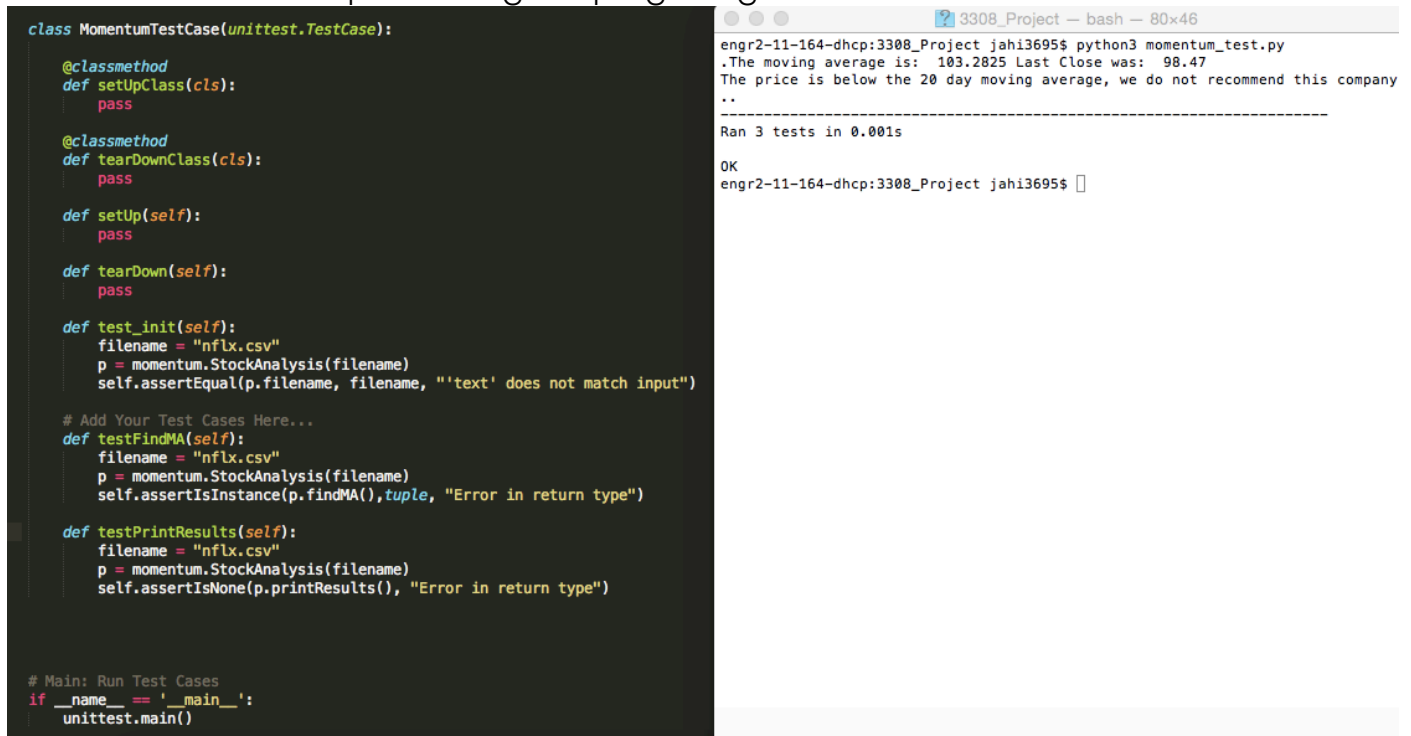Soham Shah

Title:

Stock Insights

Vision:

A service to inform millennials about an investing strategy by interpreting and visualizing market data.

Part 1: Automated Testing

We wrote python scripts to automate the testing for the momentum algorithm we are applying. Here's the link to the code: https://github.com/jjh68069/3308_Project/blob/master/momentum_test.py

Here's what output running the program gives us:

```
class MomentumTestCase(unittest.TestCase):

    @classmethod
    def setUpClass(cls):
        pass

    @classmethod
    def tearDownClass(cls):
        pass

    def setUp(self):
        pass

    def tearDown(self):
        pass

    def test_init(self):
        filename = "nflx.csv"
        p = momentum.StockAnalysis(filename)
        self.assertEqual(p.filename, filename, "'text' does not match input")

    # Add Your Test Cases Here...
    def testFindMA(self):
        filename = "nflx.csv"
        p = momentum.StockAnalysis(filename)
        self.assertIsInstance(p.findMA(),tuple, "Error in return type")

    def testPrintResults(self):
        filename = "nflx.csv"
        p = momentum.StockAnalysis(filename)
        self.assertIsNone(p.printResults(), "Error in return type")



# Main: Run Test Cases
if __name__ == '__main__':
    unittest.main()
```

```
3308_Project — bash — 80×46
engr2-11-164-dhcp:3308_Project jahi3695$ python3 momentum_test.py
.The moving average is:  103.2825 Last Close was:  98.47
The price is below the 20 day moving average, we do not recommend this company
..
----------------------------------------------------------------------
Ran 3 tests in 0.001s

OK
engr2-11-164-dhcp:3308_Project jahi3695$ 
```

Link to unittest documentation: https://docs.python.org/2/library/unittest.html
Part 2: User Acceptance Tests

Project name: Stock Insights						
Test Case Template						
Test case ID: US-01		Test designed by: Soham Shah				
Test priority (low, med, high): Med		Test designed date: 11/11/15				
Module name: Access top company stocks		Test executed by:				
Test title: Stock listings		Test execution date:				
Preconditions: User can access website and knows top stocks						
Dependencies: The website has to be running and connected to the database.						
Step	Test Steps	Test data	Expected Results	Actual Results	Status (pass/fail)	Notes
1	Access website	Webpage displays	User can see the webpage			
2	Select function tab	Click the tab	Webpage redirects to function page			
3	Type in a stock ticker	Enter "aapl"	Look at apple stock			
4	Select go	Click the go button	Server gets user entry			
5	Look at the data	NA	Data on stock is displayed			
Post Conditions: Test is validated by visually looking at the data presented and cross-referencing it with the apple csv on another computer to make sure the data is displayed accurately. Also, User evaluates ease of use.						

Project Name: Stock Insights						
Test Case Template						
Test Case ID: US-02			Test designed by: Andrew Callahan			
Test Priority (low, med, high):			Test designed date: 11/11/15			
Module Name: Check invalid			Test executed by:			
Test Title: Invalid company search			Test execution date:			
Preconditions: user can access website and search for company						
Dependencies: Website online and connected to database						
Step	Test Steps	Test data	Expected Results	Actual	Status(pass/fail)	Notes
1	Access the	Webpage	User can see the			
2	Select	Click on	Website redirects			
3	Type in a false company name	Type in "test" into field	Server does not find company, displays invalid message			
Post Conditions: Test is validated when the user see an invalid entry response from the website after it is not able to find that company stock in the database.						

Project Name: Stock Insights						
Test Case						
Test Case ID: US-03		Test designed by: Kevin Flynn				
Test Priority (low, med, high): High		Test designed date: 11/11/15				
Module Name: Webpage loads and		Test executed by:				
Test Title: Viewable Webpage		Test execution date:				
Preconditions: User knows how to access the webpage						
Dependencies: Website online and connected Django Server						
Step	Test Steps	Test data	Expected Results	Actual Results	Status(pass/fail)	Notes
1	Access the website	Enter in webpage	Webpage loads			
2	Overview what is displayed	NA	Everything loads properly and is formatted correctly			
3	Access function tab	Click to access	Function tab loads properly and is			
Post Conditions: Validated when the user is properly able access the site without, there are no formatting problems and all tabs are working.						

VCS:

https://github.com/jjh68069/3308_Project