

# **Software Implementation and Testing Document**

**For**

**Group Money Mills**

Version 2.0

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## 1. Programming Languages (5 points)

Python is compatible with a large number of API's which allows for our program to operate with real time market data.

*List the programming languages use in your project, where you use them (what components of your project) and your reason for choosing them (whatever that may be).*

## 2. Platforms, APIs, Databases, and other technologies used (5 points)

Yahoo Finance - Database/References  
ThinkorSwim - Database/References  
TD Ameritrade - API

*List all the platforms, APIs, Databases, and any other technologies you use in your project and where you use them (in what components of your project).*

## 3. Execution-based Functional Testing (10 points)

Functional testing for the project mainly relied on simply being able to pull data from the API we were eventually choosing. In this case, because we needed to switch from Polygon.io to TD Ameritrade, there was some complications but ultimately, we were successful in being able to provide a simple program that when prompted a ticker, call/put, and a strike price, could obtain a collection of information regarding these elements. Testing only included running the code with a variety of tickers, call/put selections, and strike prices.

*Describe how/if you performed functional testing for your project (i.e., tested for the **functional requirements** listed in your RD).*

## 4. Execution-based Non-Functional Testing (10 points)

Due to the swap of Polygon.io into TD Ameritrade, our implementation and safety features have changed slightly since we're able to call the API significantly more. Because of this, we believe there were ample amounts of calls to the point of satisfaction, therefore there was no non-functional testing.

*Describe how/if you performed non-functional testing for your project (i.e., tested for the **non-functional requirements** listed in your RD).*

## 5. Non-Execution-based Testing (10 points)

Syntactical walkthroughs were done to review code, however multiple code inspections were also done to make sure functional code was being committed to

the iteration branches. After pull requests were fulfilled, we as a group held meetings once a week and reviewed the pulled code, making sure it was functional on all machines and ran as intended.

*Describe how/if you performed non-execution-based testing (such as code reviews/inspections/walkthroughs).*