

## FinTech Unit 5 Homework: Grading Rubric

Criteria	Ratings			
<b>Personal Finance Planner</b> <ul style="list-style-type: none"> <li>Collect Crypto Prices Using the requests Library</li> <li>Collect Investments Data Using Alpaca: SPY (stocks) and AGG (bonds)</li> <li>Savings Health Analysis</li> </ul>	<b>35 Points Mastery</b> <ul style="list-style-type: none"> <li>Completed 3 out of 3 requirements</li> <li>Code runs without error and produces the assigned results</li> <li>Code accounts for all possible scenario</li> <li>Code is free of bugs</li> </ul>	<b>34 &gt; 28 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Completed 2 out of 3 of requirements</li> <li>Code runs without error</li> <li>Code produces results as expected 80% of the time</li> </ul>	<b>28 &gt; 23 Points Progressing</b> <ul style="list-style-type: none"> <li>Completed 1 out of 3 requirements</li> <li>Code runs without error</li> <li>Code produces results, but not necessarily the correct results</li> </ul>	<b>23 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>Completed 0 out of the 3 requirements</li> <li>No submission</li> <li>Code runs with error</li> </ul>
<b>Retirement Planning</b> <ul style="list-style-type: none"> <li>Monte Carlo Simulation with 500 runs</li> <li>Plot Monte Carlo simulation results</li> <li>Plot the probability distribution and confidence intervals</li> <li>Retirement Analysis</li> </ul>	<b>35 Points Mastery</b> <ul style="list-style-type: none"> <li>Completed 4 out of 4 requirements</li> <li>Code runs without error and produces the assigned results</li> <li>Code accounts for all possible scenario</li> <li>Code is free of bugs</li> </ul>	<b>34 &gt; 28 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Completed 3 out of 4 of requirements</li> <li>Code runs without error</li> <li>Code produces results as expected 80% of the time</li> </ul>	<b>28 &gt; 23 Points Progressing</b> <ul style="list-style-type: none"> <li>Completed 2 out of 4 requirements</li> <li>Code runs without error</li> <li>Code produces results, but not necessarily the correct results</li> </ul>	<b>23 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>Completed 1 or none out of the 4 requirements</li> <li>No submission</li> <li>Code runs with error</li> </ul>
<b>Coding Conventions/Formating</b>	<b>10 Points Mastery</b> <ul style="list-style-type: none"> <li>Imports are at the top of the file, just after any module comments and docstrings, and before module globals and constants.</li> <li>Function names are lowercase, with words separated by underscores</li> <li>Variable names follow the same convention as function names.</li> <li>Code follows (DRY) principals, no repetition, maintainable and highly reusable code.</li> </ul>	<b>9 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Variable names are specific and descriptive of the information held by the variable</li> <li>Imports are within the top of file</li> </ul>	<b>8 Points Progressing</b> <ul style="list-style-type: none"> <li>Code lacks proper indentation and length convention               <ul style="list-style-type: none"> <li>Limit all lines to a maximum of 79 characters.</li> </ul> </li> <li>Variable names are generic and not descriptive of the information held by the variable</li> <li>Imports and files are located in a non-standard location</li> </ul>	<b>8 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>Code is excessively lengthy</li> <li>Variable names are missing or lacking any descriptive information</li> <li>Import and files are not loaded</li> </ul>
<b>Deployment/Submission</b>	<b>10 Points Mastery</b> <ul style="list-style-type: none"> <li>Repository cloned to local machine</li> <li>Files added to the repo via the command line</li> <li>Appropriate commit messages</li> </ul>	<b>9 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Repository cloned to local machine</li> <li>Files added to repo via the command line</li> </ul>	<b>8 Points Progressing</b> <ul style="list-style-type: none"> <li>Repository created on GitHub</li> <li>Files added manually on GitHub</li> </ul>	<b>8 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>No Submission</li> <li>Submission via incorrect format</li> </ul>
<b>Documentation/Comments</b>	<b>10 Points Mastery</b> <ul style="list-style-type: none"> <li>Code is well commented with concise, relevant notes</li> </ul>	<b>9 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Code is commented and mostly understandable to an outside user</li> </ul>	<b>8 Points Progressing</b> <ul style="list-style-type: none"> <li>Code has comments, but they are not understandable to an outside user</li> </ul>	<b>8 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>Code is not commented</li> </ul>
<b>Optional Challenge — Early Retirement</b> <ul style="list-style-type: none"> <li>Portfolio adjusted for early retirement - Analysis of high stock vs bond ratio/ Initial Investment</li> </ul>	<b>10 Points Mastery</b> <ul style="list-style-type: none"> <li>Completed 100% of requirements</li> <li>Code runs without error and produces the assigned results</li> <li>Code accounts for all possible scenario</li> <li>Code is free of bugs</li> </ul>	<b>10 &gt; 8 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>Completed <math>\geq 80\%</math> of requirements</li> <li>Code runs without error</li> <li>Code produces results as expected 80% of the time</li> </ul>	<b>8 &gt; 6 Points Progressing</b> <ul style="list-style-type: none"> <li>Completed <math>\geq 70\%</math> of requirements</li> <li>Code runs without error</li> <li>Code produces results, but not necessarily the correct results</li> </ul>	<b>6 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>Completed <math>\leq 70\%</math> of requirements</li> <li>No submission</li> <li>Code does not run without error</li> </ul>