

FinTech Unit 5 Homework: Grading Rubric										
Criteria	Ratings				Points	Feedback				
<b>Budget Analysis</b> <ul style="list-style-type: none"> <li>• Generated a Paid access token to access the Developer Sandbox.</li> <li>• 80 days account transactions fetch from the sandbox using Access Token.</li> <li>• Basic budget analysis on the sandbox transaction and plot generated.</li> <li>• Fetch Income data using the API: Print Last Year's income before Tax, Current Monthly Income and Projected Income Before Tax.</li> </ul>	<b>20 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>19 &gt; 16 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>• Completed 3 out of 4 requirements</li> <li>• Code runs without error</li> <li>• Code produces results as expected 80% of the time</li> </ul>	<b>16 &gt; 14 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>14 &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>	0					
<b>Retirement Planner</b> <ul style="list-style-type: none"> <li>• Monte Carlo Simulation created for the retirement portfolio.</li> <li>• Historical data Fetch from Alpaca API for a traditional 60/40 Portfolio using SPY and AGG with appropriate tickers.</li> <li>• 500 Runs Monte Carlo Simulation and 30 year simulation for 60/40 portfolio.</li> <li>• 80% confidence interval calculated</li> <li>• Histogram of the results and 90% confidence interval plotted as vertical lines on the histogram.</li> </ul>	<b>20 Points Mastery</b> <ul style="list-style-type: none"> <li>• Completed 5 out of 5 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>19 &gt; 16 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>• Completed 3 out of 5 requirements</li> <li>• Code runs without error</li> <li>• Code produces results as expected 80% of the time</li> </ul>	<b>16 &gt; 14 Points Progressing</b> <ul style="list-style-type: none"> <li>• Completed 2 out of 5 requirements</li> <li>• Code runs without error</li> <li>• Code produces results, but not necessarily the correct results</li> </ul>	<b>14 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>• Completed 1 or none out of the 5 requirements</li> <li>• No submission</li> <li>• Code runs with error</li> </ul>	0					
<b>Retirement Analysis</b> <ul style="list-style-type: none"> <li>• Cumulative returns at 50 years for the 10th, 50th, and 90th percentiles</li> <li>• Expected return in dollars at the 10th, 50th, and 90th percentiles for a 20k investment.</li> <li>• Paid Analysis with a 4% withdrawal rate.</li> <li>• 50% increase analysis on initial investment on 4% retirement withdrawal.</li> </ul>	<b>15 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>14 &gt; 11 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>• Completed 3 out of 4 requirements</li> <li>• Code runs without error</li> <li>• Code produces results as expected 80% of the time</li> </ul>	<b>11 &gt; 9 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>9 &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>	0					
<b>Financial Report</b> <ul style="list-style-type: none"> <li>• Budget Analysis, transaction data summarize charts and tables produced.</li> <li>• Retirement portfolio analysed, charts from monte carlo simulation included.</li> </ul>	<b>15 Points Mastery</b> <ul style="list-style-type: none"> <li>• Completed 2 out of 2 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>14 &gt; 11 Points Approaching Mastery</b> <ul style="list-style-type: none"> <li>• Completed 1 out of 2 requirements</li> <li>• Code runs without error</li> <li>• Code produces results as expected 80% of the time</li> </ul>	<b>11 &gt; 9 Points Progressing</b> <ul style="list-style-type: none"> <li>• Completed fewer than 1 out of 2 requirements</li> <li>• Code runs without error</li> <li>• Code produces results, but not necessarily the correct results</li> </ul>	<b>9 &gt; 0 Emerging</b> <ul style="list-style-type: none"> <li>• Completed 0 out of 2 requirements</li> <li>• No submission</li> <li>• Code runs with error</li> </ul>	0					
<b>Coding Conventions/Formatting</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>	0					
<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>	0					
<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>	0					
<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 ≥ 80% 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 ≥ 70% 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 ≤ 70% of requirements</li> <li>• No submission</li> <li>• Code does not run without error</li> </ul>	0					
TOTAL POINTS					0	LETTER GRADE				
						F				