Written Report General Instructions for Retirement Project

1) Write the report as though it is going to the client. Your goal should be to attempt to have an understandable but professional "conversation" with your client about his or her financial situation and retirement plans. Your ultimate goal in writing the report is to convince the client to hire you as their permanent financial planner, so the report should be clean, organized, easy to read, and professional–looking.

2) In order to make this report somewhat readable for a typical yet curious client, do NOT do any numerical calculations in the main body (Sections S1 to S7) of the report. SAVE all the numeric calculations for Section S8, the Appendix. When appropriate, you can refer the reader (client) to the Appendix if he/she is curious about how you got your results.

3) Try to think of interesting ways to present various results. Tables, highlighting, etc, can all make a difference. Remember, you want your client to easily follow along as he/she reads and be able to find information quickly if necessary when reviewing the report.

4) All sections of the report given below MUST be included, with each section given in the order presented below.

5) Each of Sections S1 to S7 have bulleted (?) items you should include in that section. All the items each of these sections should be included, but there's no requirement they be in the order given. If you need to, take creative liberty to write each section in a way that you think is appropriate.

6) When the outline says "Give the future value of *X*," or "Give a graph of *Y*," don't just list/write down a number or graph. Take the time to briefly explain what this might mean to your client and his/her retirement plans. I.E., it's not enough just to list a bunch of numeric results. COMMUNICATE with your client!

7) All the numbered calculations listed in the Appendix Section must be included. Start each calculation by briefly explaining what you are doing, what each variable means, and what value each variable takes on. Show all calculations with the Equation Editor.

8) Note that Section S2 is probably going to be the longest one since it's all the option pricing information. Sections S3 to S6 are basically a breakdown of material from Chapter 9, so each of these should be relatively short. So, don't panic when you the see the outline below. Most of the numbers and results you need are already in your Chapter Updates (assuming they were generally correct)…this report is just a way to organize and present it in a way that will make sense to a hypothetical client.

Cover Page (Page 1)

Include the following. Be creative.
Title
Team Names
Date

Table of Contents Page (Page 2)

Make sure you include page numbers

Team Signature Page (Page 3)

Include the following statement with signatures.

We, the undersigned, affirm that each of us participated fully and equally in the completion of this assignment and that the work contained herein is original. Furthermore, we acknowledge that sanctions will be imposed jointly if any part of this work is found to violate the Student Code of Conduct or the policies and procedures established for this course.

______________________________	______________________________
Name (printed)	Signature
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Name (printed)	Signature

Report Contents (Pages 4 - ???)

S1) Introduction

- ? Objective: The goal of the report. What are you trying to do in the report?
- ? Client Information: Information about your client, the company he/she is buying options for, etc.
- ? Assumptions: What assumptions do you make? There are several listed in the text and you may find you want to list even more.
- ? Overview: Give the client a quick, easy to read description of how you will assess their retirement prospects in the report. This should be clear, concise, and thoughtful.

S2) Pricing the Stock Option

- ? Describe two ways to price an option. Your descriptions should include a listing of all the important ideas needed for each one, such as volatility, etc. Try not to get into too much detail but make sure it's clear what is needed in each case to compute the option price. (Just describe, no actual calculations here)
  - i. Bootstrap
  - ii. Black Scholes
- ? Summarize your basic results and a proposed option price for the Bootstrap method. This can include numbers (such as the mean ratio, volatility, etc), but not any actual calculations.
- ? Summarize your basic results and a proposed option price for the Black Scholes method. This can include numbers (such as the mean ratio, volatility, etc), but not any actual calculations.
- ? Give graphs that show how the option fair price is affected by the risk–free rate and the strike price. Discuss the graphs, their meaning, usefulness, etc.
- ? Report how many options your client can purchase, what the value of each will be, how much profit he/she can make on each one, and the total profits to be added to the stock portfolio.

S3) Investment 1 – The Stock Portfolio

- ? Briefly explain how your client's investments into their stock option might affect their portfolio balance.
- ? Give the Future and After–Inflation–Adjusted values of the new stock portfolio balance at the age of retirement.
- ? Clearly explain why you need both the Future and After–Inflation–Adjusted values in order to plan for retirement. (This is the first time your client may have even heard of these terms, so pay close attention to detail in your explanation.)

S4) Investment 2 – The 401K

- ? Describe how the future value of the 401K can be computed. Your description should include a listing of all the important ideas needed. Try not to get into too much detail but make sure it's clear what is needed to make this computation. (Just describe, no actual calculations here)
- ? Give the future value of the 401K account at the age of retirement.
- ? Give the After–Inflation–Adjusted value of the 401K account at the age of retirement.

S5) Investment 3 – The Roth IRA

- ? Describe how the future value of the Roth IRA can be computed. Your description should include a listing of all the important ideas needed. Try not to get into too much detail but make sure it's clear what is needed to make this computation. (Just describe, no actual calculations here)
- ? Give the future value of the Roth IRA account at the age of retirement.
- ? Give the After–Inflation–Adjusted value of the Roth IRA account at the age of retirement.

S6) Resources at Retirement

- ? Give the future and After–Inflation–Adjusted values for client's total retirement assets at the age of retirement.
- ? Explain the concept of (ordinary) annuity and how it will be helpful in retirement planning.
- ? Describe how the client's annual income can be computed. Your description should include a listing of all the important ideas needed. Try not to get into too much detail but make sure it's clear what is needed to make this computation. (Just describe, no actual calculations here)
- ? Give the After–Inflation–Adjusted value of your client's annual income (for the first year of retirement).
- ? Explain how the annual income's After–Inflation–Adjusted value will decline during retirement and provide a graph that shows the After–Inflation–Adjusted value of the client's annual income from the age of retirement to the age of presumed death.

S7) Conclusions and Summary.

- ? Summarize your findings.
- ? Offer suggestions to your client.
- ? Provide descriptions of and results from any additional what–if analysis your team did.

S8) Appendix

Provide the following calculations, step by step, should your client wish to see how you got your results. Use the equation editor for ALL equations. For each calculation, define the all variables used, and give the value of each variable used.

Example: r = risk free rate = 0.040

1. The Fair Price of the stock option using Black Scholes
2. The Future value of the stock portfolio at the age of retirement.
3. The After–Inflation–Adjusted value of the stock portfolio at the age of retirement. (In other words, if you take the value of the portfolio at the age of retirement and then adjust for inflation, what is it worth in today's dollars?)
4. The Future value of the 401K account at the age of retirement.
5. The After–Inflation–Adjusted value of the 401K account at the age of retirement. (In other words, if you take the value of the 401K at the age of retirement and then adjust for inflation, what is it worth in today's dollars?)
6. The Future value of the Roth IRA account at the age of retirement.
7. The After–Inflation–Adjusted value of the Roth IRA account at the age of retirement. (In other words, if you take the value of the IRA at the age of retirement and then adjust for inflation, what is it worth in today's dollars?)

8a. The Future value of your client's total assets at the age of retirement.

8b. The After–Inflation–Adjusted value of your client's total assets at the age of retirement. (In other words, if you take the total value of your client's assets at the age of retirement and then adjust for inflation, what is it worth in today's dollars?)

9. The Future value of your client's first month of income in retirement.
10. The Future value of your client's first year of income in retirement.
11. The After–Inflation–Adjusted value of your client's first month of income in retirement. (In other words, if you take the value of the first month's retirement income and then adjust for inflation, what is it worth in today's dollars?)
12. The After–Inflation–Adjusted value of your client's first year of income in retirement. (In other words, if you take the value of the first year's retirement income and then adjust for inflation, what is it worth in today's dollars?)
13. The After–Inflation–Adjusted value of your client's LAST year of income in retirement. (In other words, if you take the value of the last year's retirement income and then adjust for inflation, what is it worth in today's dollars?)