

MTH 154: Quantitative Reasoning
Project – Budget

Project Overview:

For this project, you are required to create an Excel workbook which tracks a yearly budget. This project will have more meaning to you the more it reflects your real life. However, I am not asking you to provide me with your personal information. You can use this project to create a budget for an imaginary scenario or for your future life based on plans of a future job, future housing, future expenses, etc. I assure you that, should you choose to include personal information, I will be assessing your work only on if it was accurately represented and interpreted. Please work to be realistic so that you can gain from the experience. There will never be any judgment made on my part nor any information shared with others.

Project Directions:

Start with a blank Excel workbook, and create two budget spreadsheets that assist you in analyzing your daily finances. For instance, you can: analyze your current financial status, set goals for the future, make changes to your current financial status, create an imaginary “dream” scenario, etc. When you are finished, write a small reflection on your experience. Your final project should have 3 sheets:

Sheet 1: Planned Annual Balanced Budget [40 pts]

- On this sheet, you will come up with your planned budget for a year.
- First, determine your income and include it in your spreadsheet. This can be salary/wages from an employer, expected earnings from side gigs, a current savings amount that you’re living off of, a loan amount to cover living expenses (ex: a student loan, or an informal loan from a relative), or some other goal amount that you plan to live off of.
- Then include your planned expenses. Be sure to take into account both regular expenses (ex: food, bills), and “irregular” but planned expenses (ex: maintenance, travel). Categorize these expenses in a way that makes sense to you and for your budget (ex: bills, entertainment, household, etc).
- Finally, make sure that the annual budget you’ve come up with *balances*. (You don’t spend more than you earn in a year.) You may need to go back and make adjustments to your expenses / income to ensure that this happens. Note: your sheet must clearly show that your budget balances.
- *Ideas: The easiest way to organize this sheet is to come up with a budget for a “typical” month, and then turn it into an annual amount. However, people with seasonal work or other irregular income and / or expenses may need to use another time period to create an annual budget.*

Sheet 2: Actual Detailed Monthly Expenses for a Year [40 pts]

- On this sheet you will list out a year’s worth of detailed, actual monthly expenses.
- You must include 12 full months, and all the same expenses and categories as on Sheet 1.
- Your actual amounts on this sheet will differ from the planned amounts (ex: in a “typical month”) on Sheet 1. (For instance, you may plan to spend \$50 a week on groceries, but you will likely never spend exactly this amount. In addition, you may have unexpected expenses.)
- Your budget on this sheet does *not* have to balance, but to make this project meaningful be sure to organize the information so it’s easy to tell if it does.
- *Ideas: If you don’t know where to start, track the current month and the previous month to get an idea of how much you actually spend on what. Then, make an educated guess as to what your “actual” expenses would be for an entire year.*

Sheet 3: Reflection [20 pts]

- Your third sheet will be your reflection on the project, as described below.

Your requirements for sheets 1 and 2 are as follows:

1. Provide visually appealing and clear formatting and labeling to allow for easy interpretation, quick differentiation among the budget categories, and for quick location of individual budget items. Be sure to label the sheet tabs clearly.
2. Provide visually appealing and correct formatting to allow for ease of data entry, without disrupting the form or function of the budget. (For example, what if electric bill is \$150 a month and not \$125? Be sure to use cell references and type in formulas so that Excel does the calculations, rather than manually typing in numbers.)
3. Accurately calculate your totals in each category in dollars *and* percentage of total. (For example, how much spent on groceries in year? What percentage of your costs is this?)
4. Create one chart / graph *on each sheet* that show the budget trends. (For example: income vs expenses, categories and months, planned vs actual, percentage spent on different categories, amount saved throughout the year, etc.) Make sure that your charts are labeled properly, and they are both meaningful and effective at conveying the information.
5. You must track at least 10 different expenses on your worksheets in at least 3 different categories. If your current situation does not include 10 items (e.g. you live at home with your parents, who pay for everything), then you must choose a different scenario for your project. For instance: research your future life after NOVA, your current life if *you* were paying for everything, or some other scenario which has meaning to you.
6. Your sheets must both tell the same story. For example: both sheets are your current life, both sheets are your future life, or both sheets are some fictitious scenario. Do not mix and match scenarios in your project.

Your requirements for sheet 3 (your reflection) are as follows:

1. Paragraph I – What did you learn from this process of creating a sheet to model something in your world? Talk about successes and struggles while doing the project.
2. Paragraph II – In what other ways in your life might you create another sheet to help you make decisions?
3. Paragraph III – Analyze your situation. What do your graphs and tables tell you about your financial habits? Where do you see need for change? What barriers were there to balancing your budget?

Turning in the project:

You will turn in this project via Canvas. You should upload two different files:

1. An Excel workbook containing sheet 1 (planned annual balanced budget) and sheet 2 (actual detailed monthly expenses). Your Excel workbook must be a file of the type .xls or .xlsx.
2. A single document containing sheet 3 (your reflection). This document must be a file of the type .doc, .docx, or .pdf.

Tips and Pointers:

The visual format of this project is intentionally open-ended. Using the tools we've learned in the course so far, you should input and organize the information in a way that is coherent, makes sense to you, and fits your particular budget information. Although there are lots of example budget sheets that you can find on the internet, you are not allowed to copy any of them for this project. (The point of the project is NOT to go find someone else's template and fill it in, but to create your own!) Be sure not to get caught up in fancy colors and font styles — your goal is to present the information in a clear and organized fashion that is easy to read, easy to interpret, and most importantly easy for you to use.

Be careful and do not “format as table” when formatting your sheets for visual appeal. Although Excel tables look great, using them is more advanced than we have covered in this class. The formulas you enter won't look as you'd expect, and it's easy to get confused with tables unless you're already an Excel expert. Also be careful and do NOT calculate ‘average’ costs for this project unless you know what you're doing. We briefly learned about “average monthly” income / expenses in section 4A, which you are free to use. However, we will not fully learn about calculating averages until later in the course. If you don't know what you're doing, don't use it.