M&A Transactions in Practice · AI Practice Guide

Claude Financial Analysis

Verify 10-K Data and Calculate a Growth Gap

Two filings, a source-checked table and a calculation you can inspect.

Use the existing M&A Institute explanation video and the original prompts to extract financial figures, investigate differences and calculate an illustrative growth scenario. Keep the evidence and assumptions visible.

What you will do

1 **Set up the case and working rules**

Projects · A shared set of source files and instructions

2 **Extract and cross-check the numbers**

Web search · A comparison table, including missing values

3 **Calculate and chart the gap**

Code execution · A chart with its method and assumptions

Companion video: 2 minutes 25 seconds. This public edition adapts the setup and Exercises 1–2 of the existing M&A Institute AI Lab 1 guide. Later scorecard, memo and deck exercises are outside this edition.

Historical case: Synopsys and Ansys. The projected path is an exercise under stated assumptions, not a current forecast or an acquisition recommendation.

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Prepare the tools and original files

Use Claude with Projects, web search and code execution available in your workspace. Feature access and labels depend on the plan, interface and organisation settings. Check the current Projects and file-creation guidance rather than assuming a paid plan is always required.

Projects guidance · Code and file-creation guidance

Starting case files

- Synopsys Form 10-K, FY2023
- Ansys Form 10-K, FY2023
- Synopsys–Ansys announcement, 16 January 2024
- Investor presentation, 16 January 2024

Keep the four original case files in one folder and add them to the project. The presentation link opens the original 16 January 2024 investor presentation from the transaction website. Save the reports as case documents for the project. To complete FY2019–FY2023, retrieve the earlier filings as the calculation prompt requests. Missing access or missing years stay explicit.

Keep the reporting basis consistent

The video compares figures with the original FY2023 filing. A later filing presents FY2023 continuing-business revenue after the Software Integrity discontinued-operations treatment. A different figure is a reason to reconcile the source and perimeter; it is not automatically an extraction error.

Repeat the two exercises

Pages 4–5 retain the existing guide's original exercise pages, including its prompts. Start with the project setup and source comparison. Then obtain any missing filing, calculate with code and check the result. If you open a new chat, explicitly supply the checked table and previous result; project files and chat context are different things.

Code can make arithmetic reproducible. It does not establish that the source data are complete or the projection assumptions are correct. Check units, reporting periods, source locations and the number of growth intervals. A combined revenue sum with different fiscal year ends is not a calendarised pro forma model.

ChatGPT users: follow the corresponding Projects, Search and Data analysis route described on the exercise pages. Check current workspace availability. Match the same inputs and evidence whichever tool you use.

Follow the demos

1 Cross-check two 10-Ks against live market data

Projects · Web search

Projects keep your filings and your working rules in one place, so every chat in the project starts from the same sources and rules. Here the project is a deal room, and the first task is a five-year comparison pulled from the web.

Use it when. Use a project when the same files and rules must hold across many chats. Add web search when the question needs live data the files do not contain.

STEPS

1. In the left menu click **Projects** → **New project** and name it **Synopsys-Ansys Deal Room**.
2. In the project panel click + next to project files and add the four documents.
3. Click **Set project instructions**, paste the text below and save.
4. Start a new chat inside the project, open the tools menu under the message box, switch on **Web search** and send the prompt.

PROJECT INSTRUCTIONS

> You are the corporate development analyst on Synopsys's deal team. Report all figures in USD millions on a fiscal-year basis, cite the document and section behind every number, and answer 'not disclosed' when a figure is not in the files. Keep answers board-ready: lead with the conclusion, then the evidence.

PROMPT

> Open Yahoo Finance and collect annual revenue, operating income and free cash flow for Synopsys (SNPS) and Ansys (ANSS) for the five fiscal years before the deal. Put both companies in one table, add the growth rate for each year, and flag any figure that differs from the 10-K in this project.

WHY THIS PROMPT WORKS

"Open Yahoo Finance"	Says where to look, so Claude uses the live site and not memory.
"the five fiscal years before the deal"	Fixes the window, so every figure covers the same period.
"one table, add the growth rate for each year"	Sets the shape of the answer: one table you can compare at a glance.
"flag any figure that differs from the 10-K in this project"	Builds the check into the ask: Claude compares the web figures with your own files.

Check

Every figure sits in one table with its year, and any number that differs from the 10-K is flagged, as you asked. Spot-check one figure against the filing. For example, Synopsys FY2023 revenue should read 5,842.6 (USD millions). If a value is not in your files, a good answer says 'not disclosed' instead of guessing.

ChatGPT

Create a project, add the same files and instructions, switch on Search and send the same prompt.

AI tip

Put "say not disclosed when a figure is not in the files" in the project instructions. It is why Claude marks the missing years instead of guessing.

If it goes wrong

Claude cannot complete the table from these sources: FY2019 and FY2020 are not in the two 10-Ks, and Yahoo does not list Ansys. Yahoo's Synopsys revenue also differs from the 10-K by the divested Software Integrity segment. Do not let it fill gaps from memory: accept "not disclosed", add the missing filings, and ask again, as the next exercise does.

Make it yours

Replace the two companies and the announcement date, attach your own two 10-Ks, and keep the project rules unchanged.

2 Close the gap with code: calculate and chart the growth gap

Code execution

Code execution lets Claude write and run a short program instead of estimating in its head, so the numbers are exact and the chart is drawn from them. Here it projects two revenue paths to fiscal 2028.

Use it when. Use code execution whenever the answer must be exact: growth rates, projections and totals. Claude writes and runs the program, then draws the chart from its results.

STEPS

1. Open a new chat in the same project.
2. Send the prompt. A code block appears while Claude works, then the result table and chart show in the answer.

PROMPT

> Using the project files, SEC EDGAR filings and code, project Synopsys's revenue to fiscal 2028 at its FY2019-FY2023 revenue growth rate, and compare it with the combined Synopsys-Ansys revenue path grown at the two companies' combined FY2019-FY2023 growth rate. Chart both lines, shade the growth gap, and state the gap in dollars and in percentage points of growth.

WHY THIS PROMPT WORKS

"Using the project files, SEC EDGAR filings and code"	Names the sources and the method: filings for the numbers, code for the arithmetic.
"at its FY2019-FY2023 revenue growth rate"	States the assumption, so the projection can be checked and changed.
"Chart both lines, shade the growth gap"	Asks for the picture that shows the answer.
"in dollars and in percentage points of growth"	Asks for two units, so the gap reads both ways.

Check
The answer shows its code, a table of the rates and a chart that match each other. For example, combined growth should read 13.57% a year against 14.83% for Synopsys alone. Ask Claude to show the calculation step by step, then recompute one rate yourself.

ChatGPT
Use Data analysis with the same prompt and files.

AI tip
Ask for code when you need exact numbers. Claude shows its method and its rates, so you can check the arithmetic and rerun it with another assumption.

If it goes wrong
The two companies have different fiscal year ends (Synopsys October, Ansys December), and combined revenue is a simple sum. Claude states both in its caveats. Check them, and ask for a calendar-year version if the board needs one.

Make it yours
Use your two companies and your own period, and ask Claude to state the method (here, growth over four periods) so you can reuse it.