AI Workbench

ChatGPT, Claude & Practical Generative AI



A HANDS-ON WORKBOOK

60 original labs for learning, writing, business, creative production and practical AI automation. Work with synthetic inputs, compare your results, and keep a record of what you changed.

https://ai-workbench-guide.pages.dev/

FREE SAMPLE / ORIGINAL WORKBOOK PAGE NUMBERS

How to use this book

Choose any lab from the contents or PDF bookmarks. Start with the fixture and work through the build before reading the example. The examples illustrate acceptable outcomes; model answers and generated media will vary. Keep a draft, a corrected version, and a short note on how you verified the change.

WHAT YOU NEED

A text editor is enough to read the fixtures and critique the examples. Use ChatGPT, Claude, or another chat tool to run the prompt exercises. Media and live integrations can require accounts or credits. The local Python capstone uses synthetic data and the standard library.

BEFORE USING LIVE MATERIAL

Check data permissions, tool access and rights before uploading or publishing. Verify factual claims against their sources. Keep proposed actions separate from approved execution. This independent workbook is not affiliated with any tool vendor.

OFFICIAL REFERENCES

OpenAI text generation

Claude prompt engineering

OWASP generative AI security

Plan a Week from Competing Commitments

Prompting and everyday work

THE ASSIGNMENT

A useful weekly plan begins by distinguishing commitments, estimates, and preferences. A commitment has a real time boundary or dependency. An estimate is a guess about duration and can be revised after work begins. A preference helps place flexible work without creating a new obligation. ChatGPT or Claude can help lay these out, but each proposed block still needs to fit inside the actual availability. Ask for a compact constraint table before asking for a schedule so that you can catch forgotten travel time, optimistic task estimates, or work that should move to a later week. Use a separate list of options for overflow. When the first schedule looks tidy, simulate a common interruption and check which blocks can move without creating new conflicts.

WHAT TO TURN IN

Save the artifact from this lab, your check results, and one change you made after review. Your first acceptance criterion: The brief appears before Tuesday 14:00 and receives 90 minutes.

GOAL AND INITIAL ASSUMPTION

Start with the fixture

Plan a Week from Competing Commitments

PRACTICE INPUT

Practice calendar, local time
Monday available 09:00–12:00. Tuesday 13:00–16:00. Wednesday 09:00–11:30. Thursday 13:00–16:00. Friday 09:00–11:00.
Fixed events: Tuesday client review 14:00–14:30, Thursday dentist 13:30–14:15 plus 30 minutes travel each way.
Tasks: Brief draft 90 minutes before Tuesday review. Weekly report 75 minutes before Friday 10:00. Invoice batch 45 minutes by Thursday 16:00. Inbox tidy 30 minutes and optional. Keep a 15-minute buffer before and after the client review.

Use this input as supplied for your baseline. Record any deliberate change so you can tell which result came from which input.

INPUT FIELDS AND CONSTRAINTS

Run the build

Plan a Week from Competing Commitments

01 | Copy the availability and each fixed event into your chosen assistant. Ask it to show when travel and buffers consume time, then compare that table to the fixture line by line.

02 | Request one plan in chronological order. Require each row to show start time, end time, duration, deliverable, and any constraint that makes the row inflexible.

03 | Add a Tuesday availability change of 13:30–16:00 and ask for a minimal repair. Check that moving a block does not erase a buffer or place work after its deadline.

04 | Save a weekly prompt template with blanks for deadline, travel, prework, and latest permissible completion. Run it again with the optional inbox task removed and compare the resulting slack.

PROMPT, SETTINGS, OR PROCEDURE

Inspect a worked example

Plan a Week from Competing Commitments

Monday 09:00–10:30, finish brief draft before Tuesday review.
Tuesday 13:45–14:00, review buffer. 14:00–14:30, client review. 14:30–14:45, review buffer.
Wednesday 09:00–10:15, finish weekly report. 10:30–11:15, finish invoice batch.
Thursday 13:00–14:45, dentist and round-trip travel.
Friday retains its full 09:00–11:00 availability for spillover. Inbox tidy remains optional.

Compare this reference with your first pass. Mark a detail in the fixture that supports the result and one choice the maker had to make.

EVIDENCE AND DIFFERENCES

Find the failure

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A PLAUSIBLE FIRST PASS

The first schedule puts invoice work on Thursday at 14:30 because it marks the appointment as ending at 14:15 and overlooks return travel. It looks feasible until the return trip appears on a real calendar.

Locate the first point where this result stops satisfying the assignment. Write the smallest test that would expose the problem before release.

FAILURE SIGNAL AND LIKELY CAUSE

Make one repair

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A CONCRETE CORRECTION

Add explicit occupied intervals to the input and ask for a second view containing only occupied intervals and scheduled tasks. Move invoices to Wednesday 10:30–11:15, then check both the 45-minute duration and Thursday deadline.

Change one instruction, input, or gate. Repeat the original case, then try a nearby case. Record the before and after so the effect is visible.

CHANGE, RERUN, AND RESULT

Run the acceptance checks

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For each check, write Pass, Revise, or Blocked. Attach the observed detail that justifies your result.

01 | The brief appears before Tuesday 14:00 and receives 90 minutes.

STATUS AND EVIDENCE

02 | Thursday reserves the complete 13:00–14:45 period.

STATUS AND EVIDENCE

03 | No optional task is presented as a commitment or scheduled outside a stated window.

STATUS AND EVIDENCE

Make a judgment call

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01 | Place the report on Wednesday or Friday morning. Compare the amount of recovery time if the report overruns.

02 | Keep or defer the optional inbox task. Explain what risk that half hour would absorb.

03 | Move only disrupted blocks after Tuesday changes. Name one circumstance that warrants replanning the week.

DECISION, EVIDENCE, AND WHAT WOULD CHANGE IT

Try a second case

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EXTENSION

Add a 60-minute urgent request arriving Wednesday at 09:00 with a same-day deadline. Make two revised plans, then explain which protects the most useful open time on Thursday.

REVIEW AFTER THE RERUN

01 | Which detail would have been missed if you supplied only the task names?

02 | Which buffer protected a downstream obligation?

03 | How could actual time data improve the next weekly plan?

EVIDENCE FROM THE SECOND RUN

Take the workflow with you

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TRANSFER EXERCISE

Use the same process for a household calendar by including school pickup, transit, preparation and handoffs. Turn each assumed duration into a user-owned estimate before committing it.

NEW INPUT AND EXPECTED DELIVERABLE

BOUNDARY OR EVIDENCE TO VERIFY

RELEASE DECISION AND NEXT OWNER