

AI Class

First Half 2026

Free vs. Paid

Use the free version when:

- You're just exploring basic capabilities — writing quick emails, brainstorming names, summarizing articles.
- You're not in a rush — the free version can be slower, especially at peak times.
- You only need a non-special GPT — which is fine for surface-level content or general questions.

Use the paid version when:

- You need complex reasoning, coding, or multitask assistance — GPT-4o (and later) handles more steps, fewer hallucinations, and better memory.
- You want speed and uptime — it's prioritized even when the servers are getting slammed.
- You're doing live demos — this is critical. The free version is like demoing a 10-year-old laptop at a tech show: risky.

ChatGPT's reasons to pay for it (I asked it):

1. Much Better Output Quality
 - a. It can write in your brand voice, understand subtle prompts, and even format responses more naturally.
 - b. Example for your demo: ask both versions to write a Facebook ad for a spring sale — GPT-4o will nail it; GPT-3.5 may just yell "SALE!" in all caps.
2. File Uploads, Vision, and Tools
 - a. The paid version lets you upload spreadsheets, images, PDFs, and ask questions about them.
 - b. Try doing that live in the free version and...well, cue the awkward silence.
3. Faster and More Reliable Access
 - a. No throttling, no getting bumped out when usage is high.
 - b. During a presentation, this is not when you want to be told "please try again later."

Parts of AI

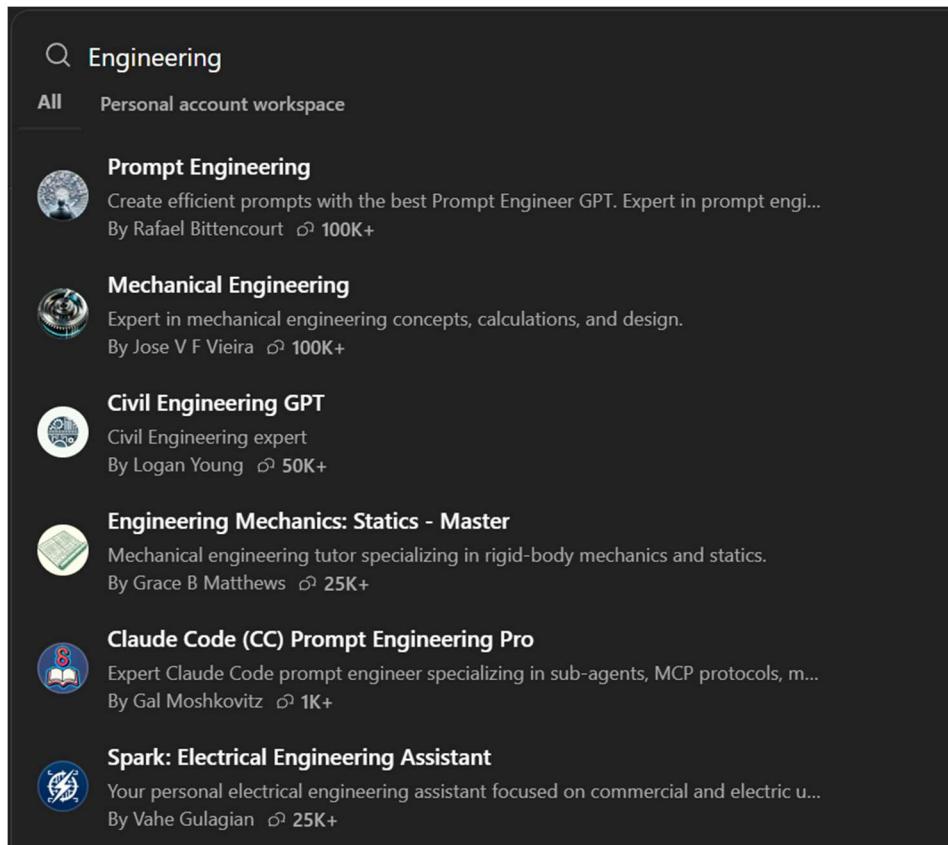
The GPT (the brain)

You can use the default brain to do things like:

- Brainstorm ideas
- Ask questions
- Get explanations
- Write or edit text
- Debug code
- Role-play, plan, argue politely, etc.

Think of chats as **disposable conversations** unless you intentionally organize them.

Or, you can get a trained brain to bounce things off:



The screenshot shows a dark-themed AI workspace interface. At the top, there is a search bar with the text "Engineering" and a "All" button next to "Personal account workspace". Below this, a list of trained brains is displayed:

- Prompt Engineering**
Create efficient prompts with the best Prompt Engineer GPT. Expert in prompt engi...
By Rafael Bittencourt 100K+
- Mechanical Engineering**
Expert in mechanical engineering concepts, calculations, and design.
By Jose V F Vieira 100K+
- Civil Engineering GPT**
Civil Engineering expert
By Logan Young 50K+
- Engineering Mechanics: Statics - Master**
Mechanical engineering tutor specializing in rigid-body mechanics and statics.
By Grace B Matthews 25K+
- Claude Code (CC) Prompt Engineering Pro**
Expert Claude Code prompt engineer specializing in sub-agents, MCP protocols, m...
By Gal Moshkovitz 1K+
- Spark: Electrical Engineering Assistant**
Your personal electrical engineering assistant focused on commercial and electric u...
By Vahe Gulagian 25K+

Projects (the task)

A project can have:

- Multiple related chats
- Uploaded files
- Shared context (goals, constraints, tone)
- Long-running work (novel, app, research, business idea)

Use projects when:

- You're working on something over time
- You don't want to re-explain yourself every day
- You want consistency

Tools (things that the AI can do)

Depending on the chat or project, AI can use tools like:

- **Browsing** – look things up live
- **Data analysis** – spreadsheets, charts, stats
- **File handling** – read PDFs, docs, CSVs
- **Image understanding** – analyze photos/screenshots
- **Image generation** – create images from prompts
- **Code execution** – run and test code
- **Canvas** – long documents or code you iterate on

Voice And Audio

You can:

- Talk instead of typing
- Hear responses spoken
- Interrupt mid-answer
- Have more natural back-and-forth

Good for:

- Brainstorming
- Practicing explanations
- Talking through ideas while walking around

File Uploads

You can upload:

- PDFs
- Docs
- Images
- Code files
- Spreadsheets

Then ask things like:

- “Summarize this”
- “Find problems”
- “Rewrite section 2”
- “Explain this code”

TL;DR cheat sheet

- **Chat** → quick thinking
- **Project** → ongoing work
- **GPT** → custom preset
- **Tools** → extra abilities
- **Canvas** → serious writing/coding
- **Memory** → personalization
- **Voice** → hands-free thinking
- **Files** → real context
- **Automations** → reminders & checks

Why a special GPT?

You could just use ChatGPT off the shelf – so why would you want to create your own specific chatbot?

1. Specialization = Better Quality Responses

- **Multi-bot setup:** Each bot can be an expert in its domain (e.g., HR bot, IT helpdesk bot, Finance bot).
- **One bot to rule them all:** It might give broader answers, but they'll often be shallower or generic unless it's super-finely tuned (and expensive).

Analogy: Would you ask your family doctor to perform brain surgery? No? Exactly.

2. Modularity & Maintainability

- Updating the **IT bot** won't risk breaking the **Legal bot**.
- Easier to debug, retrain, or upgrade parts of the system.

3. Performance & Speed

- Specialized bots have smaller context windows = faster, cheaper, more efficient.
- Generalist bots may require more compute to “think through” a response.

4. Security & Access Control

- A **finance bot** can be locked behind stricter permissions.
- The **marketing bot** can be open to the public.
- Helps prevent accidental data leaks or access to sensitive info.

5. Multi-agent Collaboration

- Bots can “debate,” cross-check answers, or perform sequential tasks (e.g., planner bot → researcher bot → summarizer bot).
- This allows for **reasoning chains**, creative problem-solving, or simulating teams.

6. More Humanlike Interaction

- Humans specialize. A team of bots can simulate an organization more realistically than a single all-knowing voice.
- Bonus: If one of them has a funny accent or name, now you've got a sitcom.

Using Tools/Apps!

So, there are a lot of tools that ChatGPT can directly access. Let's use the Google Suite of items and hook up email and documents to ChatGPT.

Hook to Gmail

What I found out was that if you plan to use a different Google account (not my typical one – I'm using CEDStudent6) the browser has to be logged into that Gmail account!

1. Open ChatGPT in your browser.
2. Click your profile icon (bottom-left).
3. Click Settings.
4. Find Connectors (sometimes shown as Apps or Connected apps, depending on your rollout).
5. Locate Gmail and click Connect.
6. A Google sign-in window opens:
 - Choose the correct Google account.
 - Review permissions.
 - Click Allow to finish OAuth authorization.
7. Return to ChatGPT. Gmail should now appear as **Connected/Enabled** under Connectors.

Start a new chat and ask something like:

“What emails are in my inbox?”

“Search my email for ‘invoice’ from last week.”

ChatGPT will query Gmail only as needed to answer your prompt.

Doing work with Estimating

Upload the PDFs of the house drawings. From there, you can ask it how many windows or doors are on the house – or how much siding is required for the house.

My real world use over the past 3 weeks:

1. Everything Everywhere Daily
 - a. Find People
 - b. Find Events
 - c. Find Locations
2. Identify Items in pictures
 - a. Identify the item in the pictures
 - b. Write out the description in google docs