a. All-in-One Prompt Example

Here is a prompt that incorporates all the requested components. This structure, often called a "mega-prompt," is highly effective for complex and critical tasks because it leaves very little room for misinterpretation by the AI.

[ROLE]
You are an expert executive assistant, skilled in distilling complex conversations into concise, actionable summaries for busy C-level executives. Your tone should be professional, clear, and direct.

[CONTEXT]
I am the Chief Technology Officer (CTO) for a company called "Innovate Inc." I have just finished a one-hour project kickoff meeting for our new mobile application, codenamed 'Project Phoenix'. The meeting involved engineers, designers, and product managers. I need a summary to share with our CEO, who could not attend, and the rest of the leadership team. The full transcript of the meeting is provided below the examples.

[TASK/INSTRUCTION]
Read the attached meeting transcript and generate a high-level executive summary. The summary should focus on strategic decisions, key takeaways, action items, and any identified risks or blockers.

[FORMAT]
The output must be a markdown-formatted email. It must contain the following sections, each with a heading:
- **Subject:** Project Phoenix Kickoff Summary
- **Key Decisions:** (Use a bulleted list)
- **Action Items:** (Use a numbered list, assigning each item to a person or team)
- **Identified Risks:** (Use a bulleted list)

[RULES]
- The entire body of the email (excluding the subject line) must be under 250 words.
- Do not include low-level technical jargon (e.g., specific database queries, library names). Focus on business and product impact.
- For Action Items, you must explicitly name the person or team responsible (e.g., 'Design Team', 'Lead Engineer - Sarah').
- If no risks were identified in the transcript, the "Identified Risks" section should state 'No significant risks were identified at this stage.'

[EXAMPLES]
Example 1:
- **Subject:** Q3 Marketing Strategy Meeting Summary
- **Key Decisions:**
  * Approved the budget for the new social media campaign.

  * Paused the influencer outreach program pending Q2 results.
- **Action Items:**
  1. Marketing Team: Finalize campaign creative by next Friday.
  2. Alex (Data Analyst): Pull the final Q2 influencer metrics by EOD.
- **Identified Risks:**
  * The primary campaign platform has announced downtime that may conflict with our launch date.

[MEETING TRANSCRIPT]
[...paste the full meeting transcript here...]

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b. Examples of Prompting Techniques

Here are examples of different prompting techniques with their likely results.

Truth Detector

This technique tasks the AI with fact-checking a piece of text against its knowledge base.

- **Prompt:**

  Analyze the following paragraph for factual inaccuracies. List each error you find. If there are no errors, state "All facts are correct."

  Paragraph: "The moon is the largest planet in our solar system and is made of green cheese. Its capital city, Tranquility Base, was established by Neil Armstrong in 1969 after he flew there on the Space Shuttle Discovery."

- **Example Result:**

  Here are the factual inaccuracies found in the paragraph:

  1. The moon is a natural satellite, not a planet.
  2. The moon is not the largest object in the solar system; Jupiter is the largest planet.
  3. The moon is composed of rock and dust, not green cheese.
  4. The moon does not have a capital city. Tranquility Base was the name of the Apollo 11 landing site.
  5. Neil Armstrong flew on the Apollo 11 mission, not the Space Shuttle, which was first launched in 1981.

AI Prompt Helper

This involves asking the AI to act as a prompt engineer to improve your own prompts.

- **Prompt:**

  I need to generate three creative taglines for a new coffee shop. My current prompt is just: "Write taglines for a coffee shop." How can I improve this prompt to get better, more specific results? Please provide a revised, improved prompt.

- **Example Result:**

  Your current prompt is too generic. To improve it, you should add specific details that capture the coffee shop's essence. A better prompt would include:

  - **Target Audience:** Who are you trying to attract? (e.g., students, remote workers, coffee connoisseurs)
  - **Unique Selling Proposition (USP):** What makes it special? (e.g., ethically sourced beans, cozy atmosphere, fastest service in town, dog-friendly)
  - **Desired Tone:** What feeling should the taglines evoke? (e.g., witty, elegant, modern, warm)

  Revised, Improved Prompt:

  "Act as an expert marketing copywriter. Generate five creative and memorable taglines for a new coffee shop called 'The Daily Grind'. Our shop is located in a busy downtown area, targeting young professionals and remote workers. Our unique selling points are our ethically sourced, single-origin coffee beans and our quiet, comfortable 'deep work' zones with high-speed internet. The tone should be modern, sophisticated, and slightly witty."

Choose the Right Model

This technique helps you decide which type of AI is best suited for a specific job.

- **Prompt:**

  I have a task that requires analyzing thousands of scanned PDF invoices to extract the vendor name, invoice date, and total amount, then save this data into a CSV file. Which AI system or combination of systems would be best for this: a Large Language Model (LLM) like Gemini, or a dedicated Optical Character Recognition (OCR) service? Explain your reasoning.

- **Example Result:**

  For this task, a combination of systems would be most effective.

  1. **Optical Character Recognition (OCR):** You should first use a dedicated OCR service. OCR is specialized in converting images of text (like a

scanned PDF) into machine-readable text strings. It is the best tool for the initial extraction of raw text from the invoices.

2. **Large Language Model (LLM):** Once you have the raw text from the OCR, you should then pass that text to an LLM. An LLM excels at understanding the structure and context of natural language. It can intelligently parse the unstructured text to identify and extract the specific entities you need (vendor name, date, total amount) and format them correctly, even if they appear in different places on different invoices.

Reasoning: Using OCR alone would just give you a block of text, leaving you to write complex rules to find the data. Using an LLM alone on the PDF images would be inefficient as it's not specialized for OCR. The combination uses each model for what it does best, leading to a more accurate and robust solution.

Self-Improvement Loop

This is a multi-step process where the AI creates, critiques, and then refines its own work.

- **Prompt (Step 1):**

  Write a short, four-line poem about a computer server.

- **Example Result (Step 1):**

  In racks of steel, my lights all gleam,

  I serve the data, a flowing stream.

  My fans they hum a steady tune,

  Beneath the cold and distant moon.

- **Prompt (Step 2):**

  Now, provide a critique of the poem you just wrote. What are its weaknesses?

- **Example Result (Step 2):**

  Critique: The poem is functional but relies on clichés. "Lights all gleam" and "flowing stream" are generic. The rhyming scheme (AABB) is very simple, and the final line, "Beneath the cold and distant moon," feels disconnected and irrelevant to a server's function.

- **Prompt (Step 3):**

Based on your critique, write a new, improved version of the poem.

- **Example Result (Step 3):**

  A billion thoughts in silicon sleep,

  I wake to promises I must keep.

  A pulse of light, a whispered plea,

  I am the network's memory.

Think Step by Step

Also known as Chain-of-Thought prompting, this forces the model to explain its reasoning, which dramatically improves accuracy on logic and math problems.

- **Prompt:**

  A farmer has 15 cows and 20 chickens. A dealer buys 1/3 of the cows and 1/4 of the chickens from the farmer. How many total legs are left on the farmer's remaining animals? Let's think step by step.

- **Example Result:**

  Okay, let's break this down step by step.

  1. **Initial Animals:** The farmer starts with 15 cows and 20 chickens.
  2. **Cows Sold:** The dealer buys 1/3 of the cows. 1/3 of 15 is 15 / 3 = 5 cows sold.
  3. **Cows Remaining:** The farmer has 15 - 5 = 10 cows remaining.
  4. **Chickens Sold:** The dealer buys 1/4 of the chickens. 1/4 of 20 is 20 / 4 = 5 chickens sold.
  5. **Chickens Remaining:** The farmer has 20 - 5 = 15 chickens remaining.
  6. **Calculate Legs on Remaining Cows:** Cows have 4 legs each. 10 cows * 4 legs/cow = 40 legs.
  7. **Calculate Legs on Remaining Chickens:** Chickens have 2 legs each. 15 chickens * 2 legs/chicken = 30 legs.
  8. **Total Legs Remaining:** Add the legs from both types of animals. 40 legs + 30 legs = 70 legs.

  Final Answer: There are 70 total legs left on the farmer's remaining animals.

Iterate and Refine

This is the natural, conversational approach to guiding the AI toward the perfect output through a series of follow-up instructions.

- **Prompt (Turn 1):**

  Write an email to my team about a mandatory meeting on Friday.

- **Example Result (Turn 1):**

  Subject: Mandatory Meeting

  Hi Team,

  Please be advised that there will be a mandatory meeting this Friday.

  Thanks,

  [Your Name]

- **Prompt (Turn 2):**

  This is too blunt. Make it more friendly, specify the time is 10 AM, and mention it's about the Q3 launch plan.

- **Example Result (Turn 2):**

  Subject: Team Meeting: Q3 Launch Plan

  Hi everyone,

  Hope you're having a great week! I'd like to schedule a team meeting for this Friday at 10 AM to discuss our exciting launch plan for Q3.

  Please make every effort to be there.

  Best,

  [Your Name]

- **Prompt (Turn 3):**

  Perfect. Now just add that it will be in Conference Room B and that they should come prepared with their initial ideas.

- **Example Result (Turn 3):**

Subject: Team Meeting: Q3 Launch Plan

Hi everyone,

Hope you're having a great week! I'd like to schedule a team meeting for this Friday at 10 AM in **Conference Room B** to discuss our exciting launch plan for Q3.

Please come prepared with any initial ideas you may have. Your input will be incredibly valuable as we kick things off.

Best,

[Your Name]