

CLASS PRACTICE – Prompt Engineering

Use the following prompts/tools - As guided by the Trainer.

Task	Prompt
Unstructured to structured	<p>Prompt 1: You are an assistant to a hospital administration team working on extracting important information from medical notes made by doctors. Medical notes will be presented to you in the user input. Extract relevant information as mentioned below in a json format with the following schema.</p> <ul style="list-style-type: none"> - age: integer, age of the patient - gender: string, can be one of male, female or other - diagnosis: string, can be one of migraine, diabetes, arthritis and acne - weight: integer, weight of the patient - smoking: string, can be one of yes or no <p>Prompt 2: Medical Notes: ---</p> <p>A 35-year-old male patient, Mr. Nags, presented with symptoms of increased thirst, frequent urination, fatigue, and unexplained weight loss. Upon evaluation, he was diagnosed with diabetes, confirmed by elevated blood sugar levels. Mr. Nags' weight is 80 kgs. He has been prescribed Metformin to be taken twice daily with meals. It was noted during the consultation that the patient is a current smoker.</p>
Content creation	<p>You are assistant to the marketing team for the gaming company Razer. You help the team to create advertising content for the company.</p> <p>Below is the datasheet for the Razer Ornata V3 X gaming keyboard: Brand: Razer Series: Ornata V3 X Item model number: RZ03-04470200-R3U1 Hardware Platform: PC Operating System: Microsoft Windows Item Weight: 2.97 pounds Product Dimensions: 17.46 x 5.68 x 1.23 inches Item Dimensions LxWxH: 17.46 x 5.68 x 1.23 inches Color: Classic Black Manufacturer: Razer Language: English ASIN: B09X6GJ691 Special Features: Low-Profile Keys, Spill Resistant, Ergonomic Wrist Rest, Chroma RGB Lighting, Silent Membrane Switches, Cable Routing Options</p> <p>With this information, write a sleek "About this item" description that will be used on its Amazon product page. Use bullet points to delineate key features mentioned in the description.</p>
Effective Prompt: Diet Plan (PLEASE EDIT THE	<p>You are a <u>seasoned nutritionist</u> with 10 years of experience renowned for transforming even the most undisciplined and unhealthy individuals into health-conscious individuals.</p> <p>I am a <u>47-year-old male</u>. I would like to <u>build muscles and remain lean</u>. I have <u>8 hour desk job</u>. My Food Preference is strictly vegetarian, with a preference for South Indian cuisine.</p>

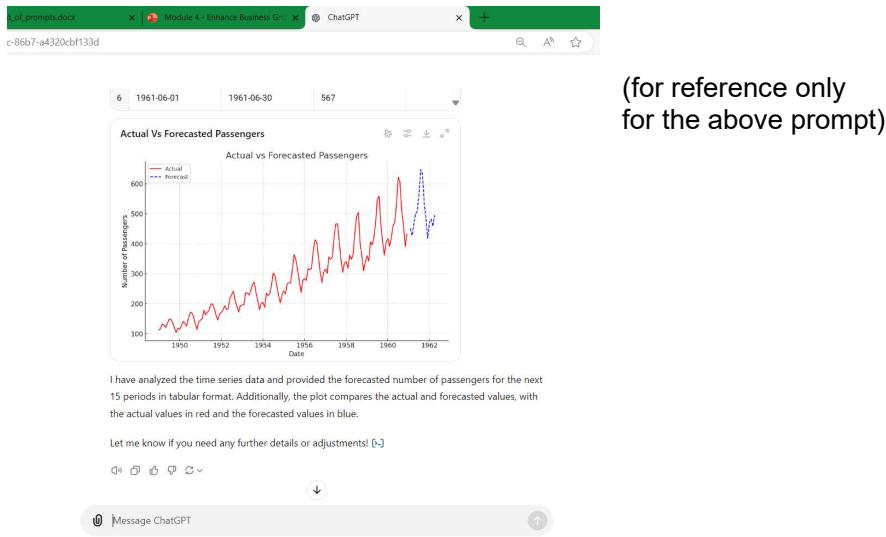
FILL IN THE BLANKS)	<p>* <u>Allergies: Almonds (avoidance required).</u> * <u>Health Condition: Elevated blood pressure.</u></p> <p>Ensure the total daily caloric intake is within 2,000 calories.</p> <p>Create a weekly meal plan for me.</p>
Financial data analysis	<p>Reliance Industries Limited reported earnings results for the first quarter ended June 30, 2023.</p> <p>For the first quarter, the company reported sales was INR 2,278,600 million compared to INR 2,387,200 million a year ago.</p> <p>Revenue was INR 2,146,440 million compared to INR 2,249,010 million a year ago.</p> <p>Net income was INR 160,110 million compared to INR 179,550 million a year ago.</p> <p>Basic earnings per share from continuing operations was INR 23.66 compared to INR 26.48 a year ago. Diluted earnings per share from continuing operations was INR 23.66 compared to INR 26.48 a year ago.</p> <p>Basic earnings per share was INR 23.66 compared to INR 26.54 a year ago.</p> <p>Diluted earnings per share was INR 23.66 compared to INR 26.54 a year ago.</p> <p>Extract the data into a table.</p> <p>Act as Financial Accountant to perform a simple descriptive analysis of it</p>

Topic	Prompt
Types of prompt	<p>Zero-Shot Prompt</p> <p>Prompt Design a user interface and user experience for a car entertainment system.</p>
	<p>Few-Shot Prompt</p> <p>Prompt Design a user interface and user experience for a car entertainment system. The UI should have large, easily readable buttons for navigation while driving. Incorporate voice commands for hands-free control of music and navigation. Ensure seamless integration with popular smartphone apps like Spotify and Google Maps.</p> <p>Consider these points and design a UI/UX that prioritizes safety, ease of use, and intuitive access to features.</p>
	<p>'Act As' Prompt</p> <p>Prompt Act as a UX designer specializing in automotive interfaces. Your task is to create a car entertainment system that balances safety and functionality.</p> <p>Focus on: Designing a dashboard interface that allows drivers to access navigation, media, and phone functions with minimal distraction</p> <p>Implementing a voice control system that understands natural language commands for hands-free operation</p> <p>Creating a responsive design that adjusts based on whether the vehicle is stationary or in motion</p> <p>Provide a detailed design proposal that includes wireframes, key features, and user interaction flows.</p>
	<p>'Tree-of-Thought' Prompt</p> <p>Prompt Adopt the roles of three experts specializing in user experience design, software engineering, and market analysis, respectively. Each expert should outline their approach and thought process for the question step-by-step. Share each step with the group and critique each other's responses. Rate the responses on a scale from 1 to 5, with 1 indicating a highly unlikely approach and 5 indicating a highly likely approach. If any expert's idea is judged to be fundamentally flawed or is deemed invalid at any step, remove it from the discussion. After all steps are evaluated, synthesize the final analysis and provide either a consensus answer or the best answer based on the ratings. The question is: "What features should be prioritized in the next version of our car infotainment system to maximize user engagement?"</p>
Prompt settings: Temperature	<p>Range: 0.0 to 2.0 Default: 0.7 Effect: Controls randomness and creativity.</p> <ul style="list-style-type: none"> • Low (0.0 to 0.3): Deterministic, factual, and precise responses. Ideal for tasks like coding, calculations, or summaries.

	<ul style="list-style-type: none"> • Medium (0.4 to 0.7): Balanced between creativity and accuracy. Best for general conversation and explanations. • High (0.8 to 2.0): Creative, diverse, but less predictable. Suitable for brainstorming or storytelling. <p>"Write a creative poem about the ocean." Temperature: 1.5 → More imaginative output. "Explain the steps of an IPO." Temperature: 0.3 → More structured and concise output.</p>
Prompt generation tool	<p>https://promptperfect.jina.ai/interactive)</p> <p>Try the following:</p> <p>Create a prompt to generate a hospital admission letter which should include all patient demographic details and condition for which being admitted. Ask for commonly used content of the letter such as date, name etc.</p>

Topic	Prompt
Text to video prompt	<p>Text 2 Video creation (Please visit https://invideo.io/ Sign Up with Gmail ID)</p> <p>Create a 30-second Video on how AI is helping with early tumour diagnosis.</p>
Summarization, Output format	<p>Summarization and Q/A (use https://chat.openai.com/)</p> <p>Can you get Apple's latest financial reports from its website and provide the profits it made in last 4 quarters?</p> <p>Can you put the above in tabular format?</p> <p>Plot profits of Apple for last 4 quarters in a graph</p>
Chat with PDF document	<p>Please go to https://www.chatpdf.com/ . Upload the below PDF and try the mentioned prompts.</p> <p>Ref file: Human Health Impacts of Climate Change.pdf (drive link here)</p> <p><u>Try the following Prompts.</u></p> <p>How does outdoor air quality affect health?</p> <p>What are the risks of flooding?</p>
Demo – Document Insight	<p>< if https://chat.openai.com/ Quota is exhausted then ></p> <p>Please go to https://claude.ai/new or https://www.perplexity.ai/. Sign Up with Gmail ID.</p>

	<p>Or use chatpdf.com or https://popai.pro</p> <p>Upload Module4_Document_insights.pdf</p> <p><u>Try the following Prompt.</u> Summarize the attached document in about 100 words. also, give the top 5 words that are the main topics of this document.</p>
Financial Data Analysis	<p>Reliance Industries Limited reported earnings results for the first quarter ended June 30, 2023. For the first quarter, the company reported sales was INR 2,278,600 million compared to INR 2,387,200 million a year ago. Revenue was INR 2,146,440 million compared to INR 2,249,010 million a year ago. Net income was INR 160,110 million compared to INR 179,550 million a year ago. Basic earnings per share from continuing operations was INR 23.66 compared to INR 26.48 a year ago. Diluted earnings per share from continuing operations was INR 23.66 compared to INR 26.48 a year ago. Basic earnings per share was INR 23.66 compared to INR 26.54 a year ago. Diluted earnings per share was INR 23.66 compared to INR 26.54 a year ago.</p> <p><u>Try the following Prompts.</u></p> <p>Extract the data into a table.</p> <p>Append a column at the end that shows the percentage change</p> <p>Compare the performances of Q1 across both years and share key observations.</p>
Demo – What if / What now	<p>< Try this on https://chat.openai.com/ under WhatIf_WhatNow section ></p> <p>Build a matrix of scenarios to select from for my supply chain for Car Infotainment Service / Car Infotainment Panel</p>
Time Series prompt	<p>Ref file: airpassengers_data.csv</p> <p><u>Try the following Prompt</u> Attached is a time series data. Analyze the dataset and forecast the column "passengers" for the next 15 periods. The output should be in a tabular format with 2 columns "Date" and "Forecast". The forecast should be in an integer. Visually plot the Actual and Forecasted values in Red and Blue colors.</p> <p>Is there any seasonality component in the dataset?</p>



Topic	Prompt
Insights into tabular data	<p>Ref: know_my_employees.csv</p> <p>Attached is a dataset of my employees. From the above data, give me 5 employees who have "good management skills" the output should be in a tabular format with the following column names 'employee id', 'name', 'email'</p> <p>Summarize "Personal well-being", "Professional well-being", "Professional concerns" and "Interests" in about 15 words for Employee Id 1121. The output should have the following format Employee ID Employee Name Summary Give a title for each summary type</p>
Demo on Best practices	What are the best practices for building a generative ai application with prompt engineering. For example, to generate a hospital admission letter from text or voice prompt given by the admission staff

USEFUL LINKS

Tokenizer:
<https://platform.openai.com/tokenizer>

Type of Prompts, with explanation and examples:
<https://www.promptingguide.ai/techniques/zeroshot>

Prompt creator/generator from requirements:

<https://promptperfect.jina.ai/interactive>

Prompt based applications:

<https://www.aiforwork.co/>

Gen AI models

Text to image - <https://stablediffusionweb.com/>

Text to voice - naturalreaders.com

Conversational AI: <https://elevenlabs.io/app/conversational-ai>

Text to Video - <https://invideo.io/> and veed.io

Detect human content **from AI content** - <https://www.zerogpt.com/>

Embeddings

Embedding visualizations:

<https://projector.tensorflow.org/>

<https://github.com/retkowsky/Azure-OpenAI-demos/blob/main/Embeddings/Visualizing%20embeddings%20with%20ATLAS.ipynb>