

Prompt

Prompt

- The art of asking is a fundamental aspect of prompt engineering, a crucial skill in the field of artificial intelligence and natural language processing.
- Prompt engineering involves crafting precise and effective instructions or queries to elicit the desired responses from AI models. Just as a well-crafted question can lead to insightful answers, the art of asking lies in formulating prompts that maximize the potential of AI models and achieve the desired outcomes.
- In simple “Prompts are the statements that you provides to ChatGPT”.

What is GPT?

- Generative Pre-trained Transformer

Searching on Google vs. ChatGPT

Google

what is machine learning

All Books Images Videos Shopping More

About 1,72,00,00,000 results (0.32 seconds)



IBM

<https://www.ibm.com/topics/machine-learning>

What is Machine Learning? ✓

Machine learning is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that ...

[Models for machine learning](#) · [What is Supervised Learning?](#) · [IBM Watson Studio](#)

People also ask

What is machine learning explain? ✓

What is ML and its application? ✓

Why do we use machine learning? ✓

What is the introduction of ML? ✓

Feedback



TechTarget

<https://www.techtarget.com/definition/machine-learning>

What is Machine Learning and How Does It Work? In- ... ✓

Machine learning is a type of AI focused on building computer systems that learn from data, enabling software to improve its performance over time.



GeeksforGeeks

<https://www.geeksforgeeks.org/ml-machine-learning>

What is Machine Learning? ✓

8 May 2023 — Machine Learning uses a data-driven approach. It is typically trained on historical data and then used to make predictions on new data.

Responds with a list

Up-to-date information

Answers the question: what sites are tightly associated with these words.



More images

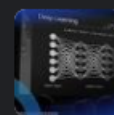
Machine learning

Field of study

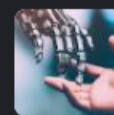
Machine learning is a field of study in artificial intelligence concerned with the development and study of statistical algorithms that can learn from data and generalize to unseen data, and thus perform tasks without explicit instructions. [Wikipedia](#)

People also search for

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Deep learning



Artificial intelligence



Data science



Artificial neural network

Feedback

**You**

what is machine learning

**ChatGPT**

Machine learning (ML) is a subset of artificial intelligence (AI) that focuses on the development of algorithms and statistical models that enable computers to perform tasks without being explicitly programmed for those tasks. The primary goal of machine learning is to allow computers to learn and improve from experience, making them capable of making predictions, identifying patterns, and solving problems based on data.

There are three main types of machine learning:

1. **Supervised Learning:** In this type of learning, the algorithm is trained on a labeled dataset, which means that the input data is paired with the corresponding correct output. The algorithm learns to map the input data to the correct output by generalizing from the labeled examples. Common tasks include classification and regression.
2. **Unsupervised Learning:** Here, the algorithm is given unlabeled data and is tasked with finding patterns or relationships within the data. Clustering and dimensionality

Message ChatGPT...



Responds with prose

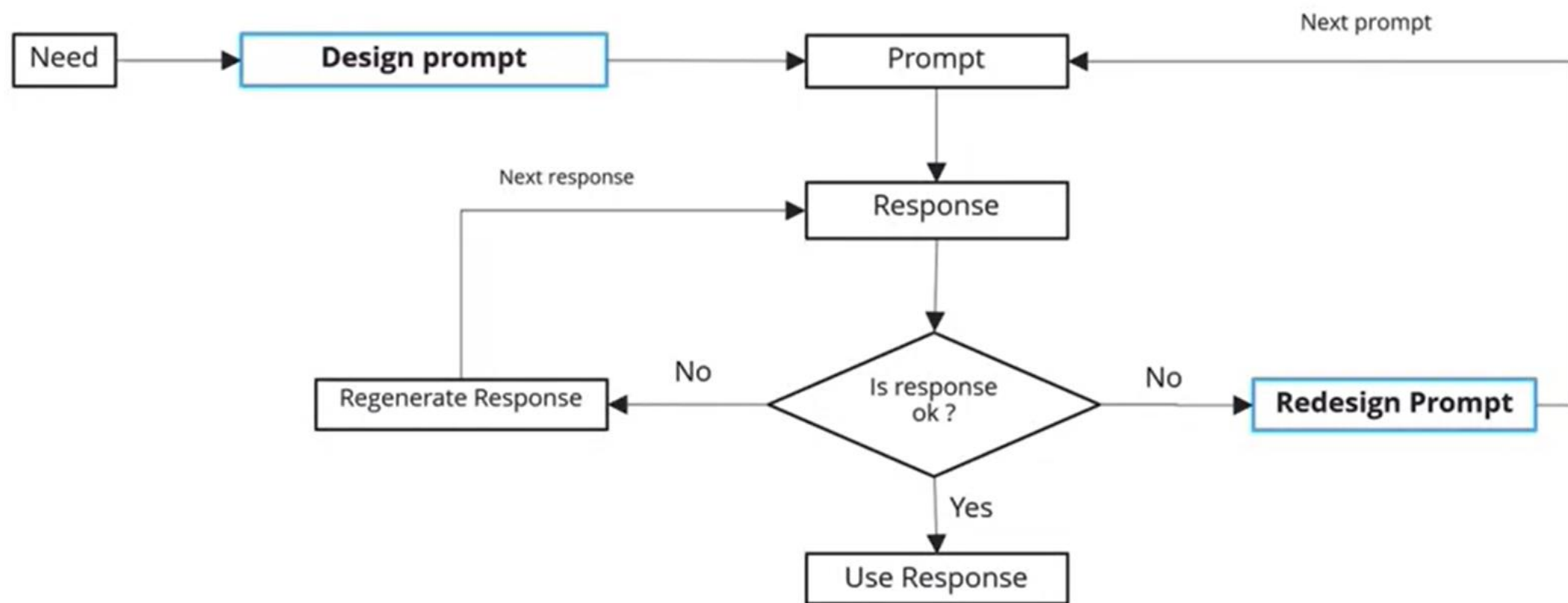
Draws from knowledge it had when the model was created (+ knowledge you add)

Answers the question: how would someone answer this question

Introducing Prompt Engineering

The art of **designing** prompts to generate **specific, high-quality responses** is called prompt engineering

Idea #1: It's not one and done, your conversation builds



Designing your prompt

Idea #2

Prompt engineering isn't just **supplying the question**, it's also supplying the **context and way to answer**.

Three ways to design your prompt

Role prompt

Assigning a perspective (role) for GPT to mimic

Few shot prompt

Giving examples of how similar questions are answered

Chain of thought prompt

Give examples of how you want ChatGPT to solve the problem

Role Prompt

Provide an identity.
Ask GPT to answer as
this identity.

This is helpful when you either
want to tap into specialized
knowledge or have a tone of voice
/ perspective you want to use.

P

Assume you are primary school student. Explain Indian independence day in 50 or more words



Indian Independence Day is a very special day for India. It is celebrated on August 15th every year because that's when India became free from British rule in 1947. Before that, India was ruled by the British for almost 200 years! On Independence Day, people in India remember and honor the brave freedom fighters who fought for our country's freedom. They also fly the Indian flag and sing the national anthem. There are many celebrations, speeches, and parades all over India, and it's a day when we feel proud of our country and its history.



P

Now assume you are Historian. Explain Indian independence day in 50 or more words



Indian Independence Day, celebrated annually on August 15th, marks the end of British colonial rule in India and the establishment of a sovereign, democratic nation in 1947. After a long and arduous struggle for freedom, involving various non-violent and revolutionary movements led by prominent figures like Mahatma Gandhi, Jawaharlal Nehru, and Subhas Chandra Bose, India finally achieved its independence. This historic day signifies the culmination of the Indian independence movement, as well as the sacrifices and resilience of countless freedom fighters. Independence Day serves as an occasion to remember and honor these individuals, while also reflecting on the progress and development of the nation since its liberation.

Few Shot Prompt

A "shot" is an example of how answers could be given.
More examples help ChatGPT infer the type of answer you're looking for

Two shot prompt

P

description: a red button that says stop

code: `<button style=color:white; background-color:red;>Stop</button>`

###

description: a blue box that contains yellow circles with red borders

code: `<div style=background-color: blue; padding: 20px;> <div style=background-color: yellow; border: 5px solid red; border-radius: 50%; padding: 20px; width: 100px; height: 100px;>`

###

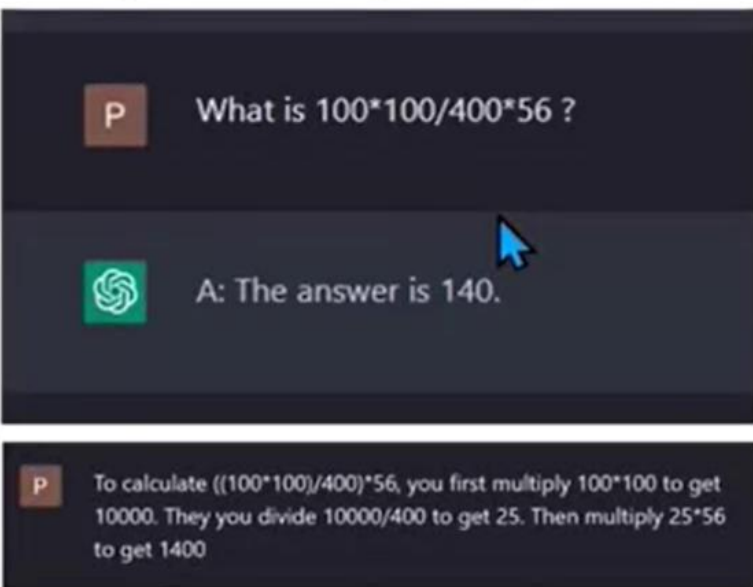


Giving two examples before asking ChatGPT to generate a block of HTML

Chain of thought prompt

LLM tend to perform less well with tasks the require deliberate and/or procedural thinking. Chain of thought gives a way to think through the problem

Example: Multi-step math problem



The screenshot shows a chat interface with a dark background. The first message is a prompt from the user, marked with a 'P' icon, asking for the result of the calculation $100 \times 100 / 400 \times 56$. The second message is a response from the AI, marked with a GPT icon, stating 'A: The answer is 140.' The third message is a detailed chain-of-thought explanation from the AI, marked with a 'P' icon, showing the step-by-step calculation: $(100 \times 100) / 400 = 25$, then $25 \times 56 = 1400$. A blue mouse cursor is visible over the second message.

P What is $100 \times 100 / 400 \times 56$?

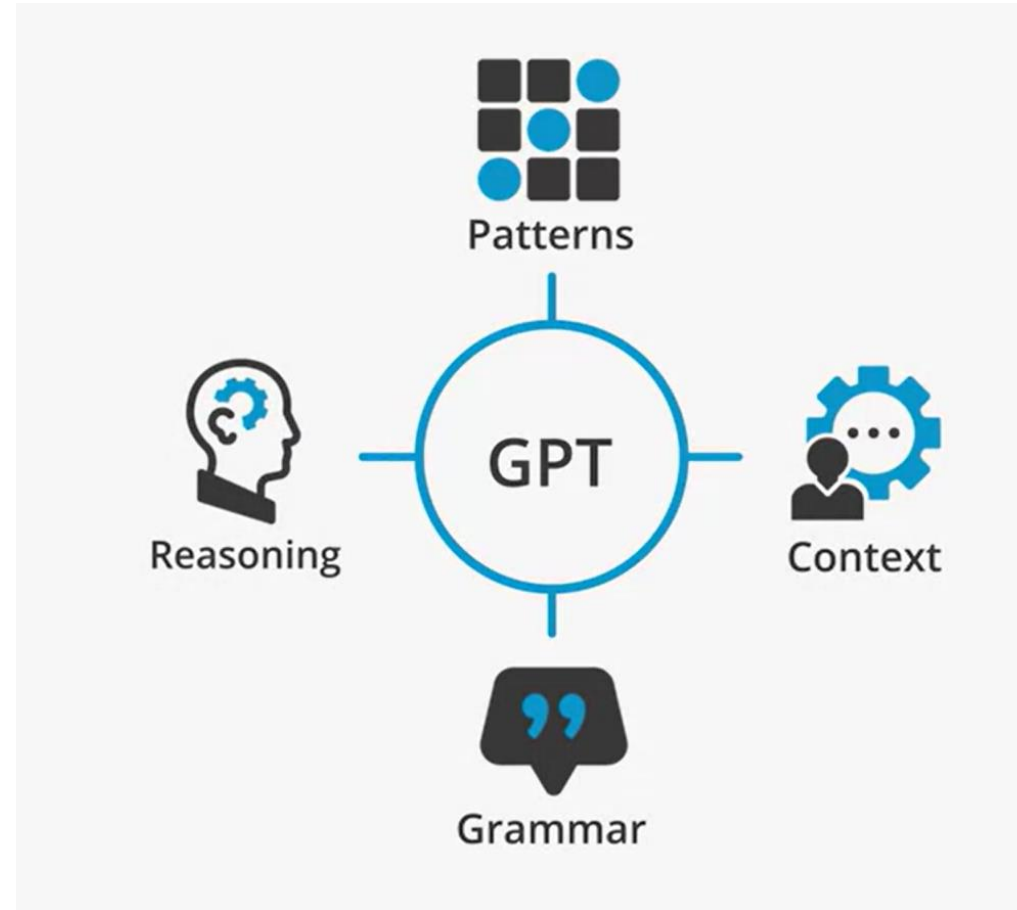
A: The answer is 140.

P To calculate $((100 \times 100) / 400) \times 56$, you first multiply 100×100 to get 10000. Then you divide 10000/400 to get 25. Then multiply 25×56 to get 1400

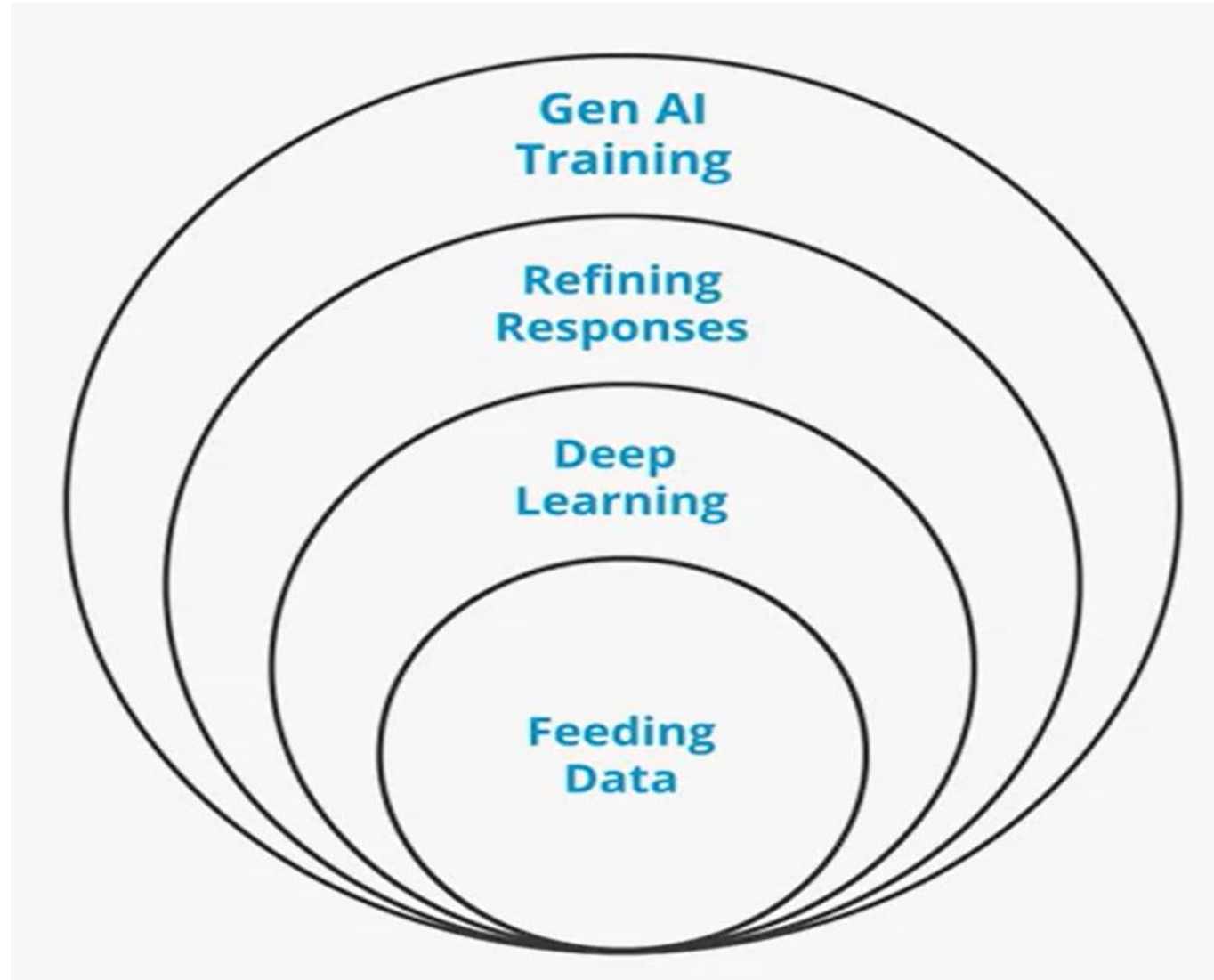
Example: Customer Segmentation Analysis

1. What are the main customer demographic variables (e.g., age, gender, location, income)?
2. How can we cluster the customers based on these variables?
3. What is the ideal number of customer segments?
4. What are the distinguishing characteristics of each segment?
5. How can we tailor marketing strategies for each segment to improve customer satisfaction and retention?

GPT learns from huge data



How GenAI models work?



Design a Chatbot

1 Defining the Chatbot's Objective

2 Data Gathering and Preparation

3 Language Model Selection

4 Training the Chatbot

5 Training the Chatbot

6 Testing and Refinement

Thank YOU!