



Here's a **simple explanation** of how a Large Language Model (LLM) like GPT works:

1. Training on Text Data

- It learns from **lots of text** (books, websites, etc.).
- It sees billions of sentences and learns **patterns in language**.

2. Tokenization

- Text is broken into **tiny pieces** called **tokens** (like words or parts of words).
 - Example: "Hello!" → ["Hello", "!"]
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3. Transformer Architecture

- GPT uses a special neural network called a **Transformer**.
 - It uses **self-attention** to understand **which words are important** in a sentence.
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4. Predict Next Token

- The model learns to **predict the next token** in a sentence.
 - Example: "I like to eat" → predicts "pizza" (if that's common in training data).
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5. Generate Text

- It keeps predicting the next word/token until it finishes the sentence or paragraph.
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6. Fine-Tuning (Optional)

- Sometimes, it's trained again on **specific tasks or data** (like legal, medical, or chatbot data).
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Result:

You type a prompt like:

"Write a story about a robot."

And it continues with a relevant, fluent story.
