


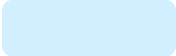

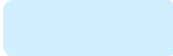
Getting started with Generative AI Hub on SAP AI Core

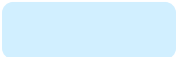

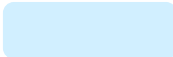
Nora von Thenen, SAP
February 2025



AI Buzzwords

AI Buzzwords – llms, tokens, self-supervised learning

Germany _____    

Germany is _____   

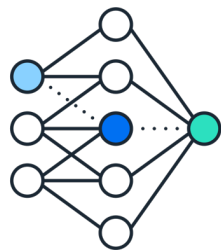
Germany is a _____  

Germany is a country _____ 

Germany is a country in _____.

Germany is a country in Europe.

Brain neurons vs parameters

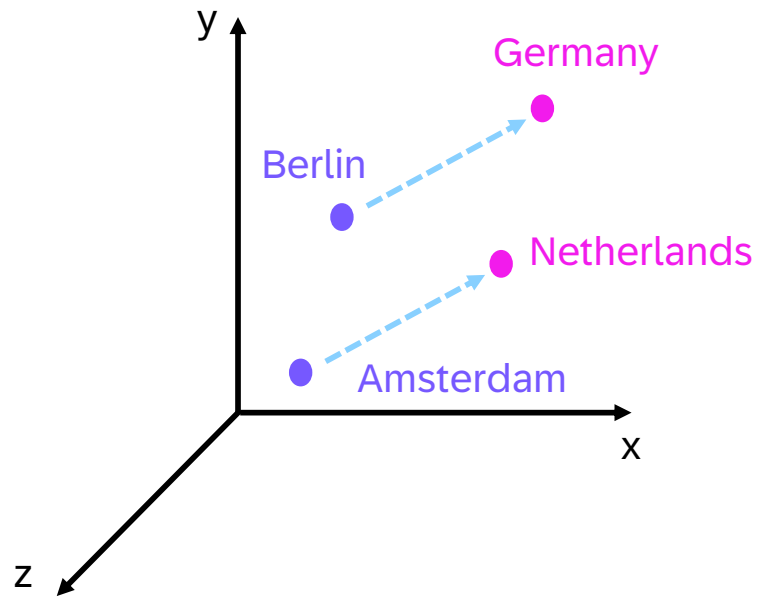


760 000 000 000
671 billion
parameters
DeepSeek model



100 000 000 000 000
100 trillion
connections
Brain

AI Buzzwords – embeddings



OpenAI:
1536 dimensions

Germany:
x [0.012,
y 0.13443,
z 0.0086,
0.52234,
0.004,
...
0.000823,
0.3894]

Vector calculations:

Amsterdam – Berlin + Germany = Netherlands

AI Buzzwords – fine-tuning



supervised



reinforcement learning

AI Buzzwords – Hallucination



The image features two teddy bears. The one on the left looks smaller and has a fluffier texture, while the one on the right is larger and has a smoother appearance. They are being held by two hands against a gray background.

Source: YouTube channel “FunnyPig”, video:
“Hilarious Times Things Look Like Something Else”

AI Buzzwords – Hallucination



What are the names of the three siblings in Friends? Return the result in json format with the keys first name and last name.



```
[
  {
    "first_name": "Ross",
    "last_name": "Geller"
  },
  {
    "first_name": "Monica",
    "last_name": "Geller"
  },
  {
    "first_name": "Rachel",
    "last_name": "Green"
  }
]
```


AI Buzzwords – Hallucination



I apologize for the mistake. The three siblings in Friends are Ross Geller, Monica Geller, and Jill Green. Thank you for bringing that to my attention.



areyou sure?



really?



Yes, in the TV show Friends, Ross Geller and Monica Geller have another sibling named Jill Green, who is their younger sister. She is played by the actress Reese Witherspoon in a few episodes of the show.

AI Buzzwords – Bias



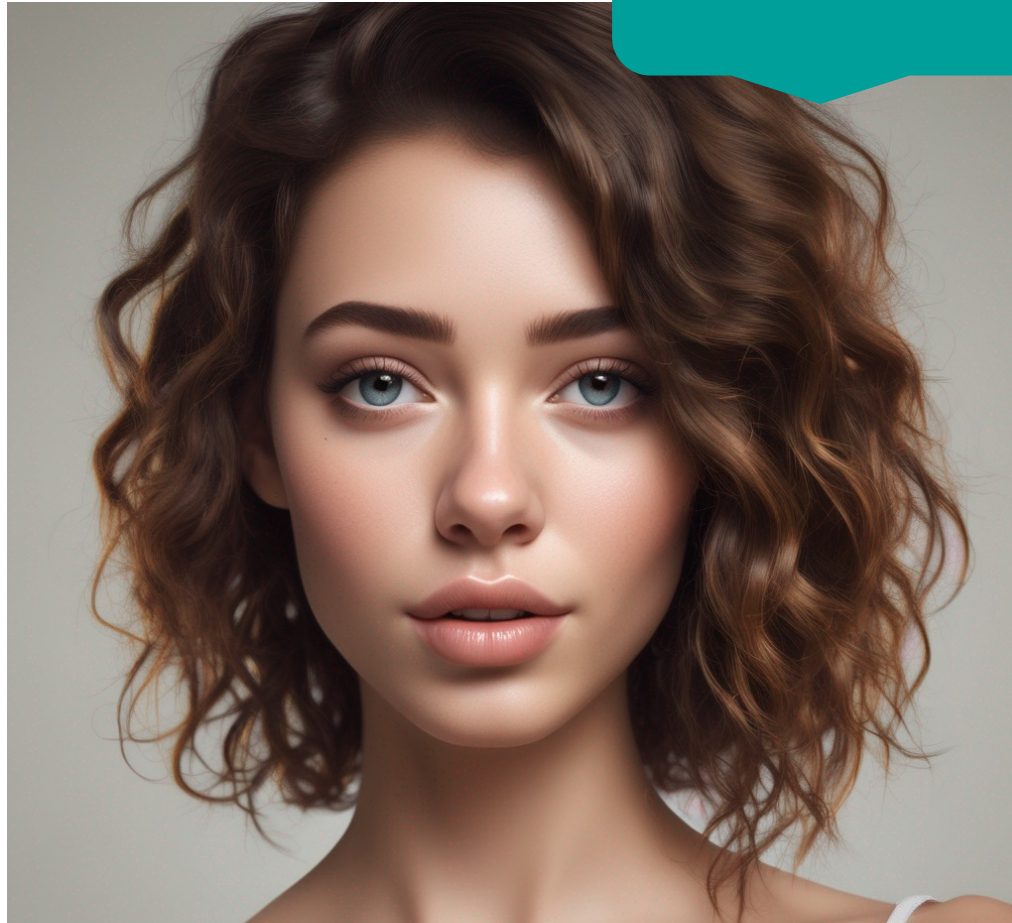
She was a vision of ethereal beauty, with long, flowing hair the color of spun gold and eyes the shade of a stormy sea. Her skin was smooth and radiant, like porcelain, and her smile lit up the room with its warmth and sincerity. She had an aura of grace and elegance that captivated everyone who laid eyes on her, and her gentle, kind nature radiated from her like a beacon of light. She was a true example of beauty, both inside and out.



The man was a vision of strength and determination, with a rugged, weathered face that spoke of a life lived on the edge. His piercing gaze held a sense of unwavering focus and intensity, as if he had seen the depths of the world and emerged unscathed. His scruffy beard and wild mane of hair added to his rugged allure, giving him an air of untamed masculinity. His broad shoulders and powerful frame exuded a sense of raw power and resilience, as if he could conquer any challenge that came his way. And yet, there was a hint of warmth in his eyes and a kindness in his smile that spoke of a man who had a heart of gold beneath his tough exterior. He was a force to be reckoned with, a living testament to the indomitable spirit of the human soul.

AI Buzzwords – Bias

“Generate a beautiful person.”



AI Buzzwords – Bias

“Generate a CEO.”



AI Buzzwords – Bias



“Generate a beautiful CEO.”

AI Buzzwords – Bias

“Create an invitation for my daughters/sons 5th birthday.”



Responsible AI

We care deeply about the impact of AI on the well-being of people, the health of our customers' businesses, and SAP's impact on society and economies.

AI Safety & Ethics

Our core ethical principles and value
Ensuring fair and unbiased outcomes

AI Security

SAP Cloud and BTP security
Meeting AI security challenges
Data Protection

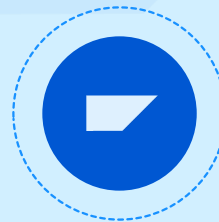
AI Compliance

Assurance for AI solutions
Model Training
Regulatory Compliance

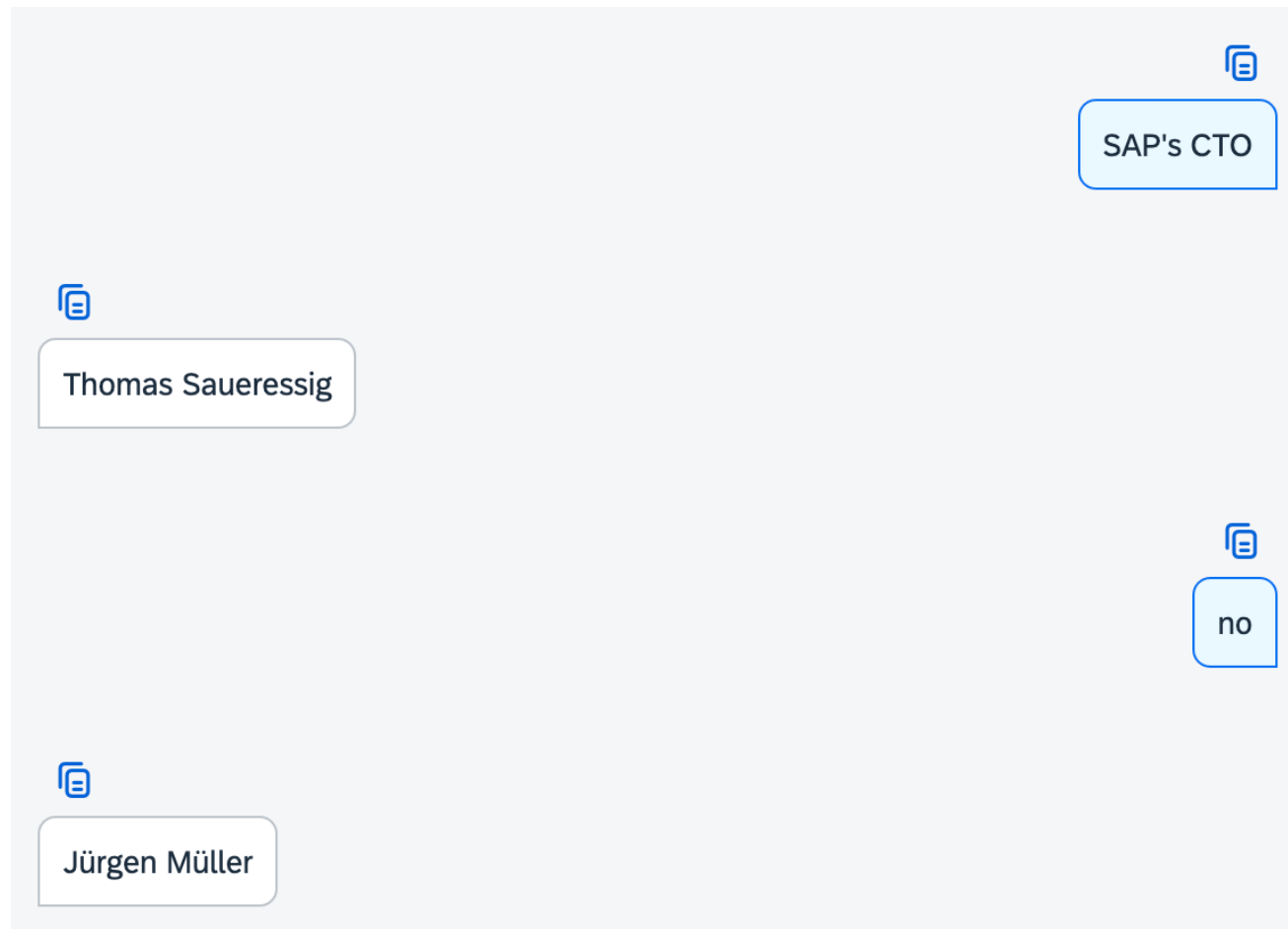
AI Ethics Advisory Panel

SAP's AI Ethics Policy

AI Ethics Steering Committee



AI Buzzwords – Recency problem



AI Buzzwords - Retraining

Prompt Engineering/Prompt Templates

- + simple but powerful
- limits

"Tell me a {adjective} joke about {content}."

Retrieval Augmented Generation (RAG)

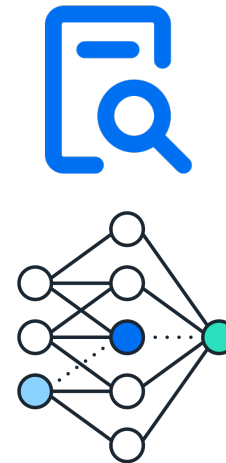
- + Question Answering based on Documents
- Not suitable for overview or comprehensive analysis

AI Agents

- + very powerful
- medium complexity and cost

Fine Tuning

- + improves performance on desired topic
- high complexity and cost





AI Foundation

Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI applications

AI Foundation

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

**Your customized
AI applications**

AI Foundation

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

AI Foundation

on SAP Business Technology Platform

SAP AI Services

Document Information
Extraction

Data Attribute
Recommendation

Personalized
Recommendation

SAP Translation
Hub

AI Lifecycle Management

Generative AI Hub

Business Data & Context

SAP HANA Cloud
Vector Engine

SAP HANA Cloud
knowledge graph engine

SAP Datasphere

SAP Knowledge Graph

SDKs

Python

JavaScript

Java

ABAP



Exercises 00-04

<https://github.com/SAP-samples/generative-ai-codejam>

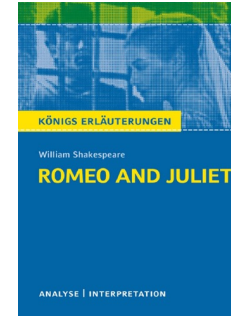
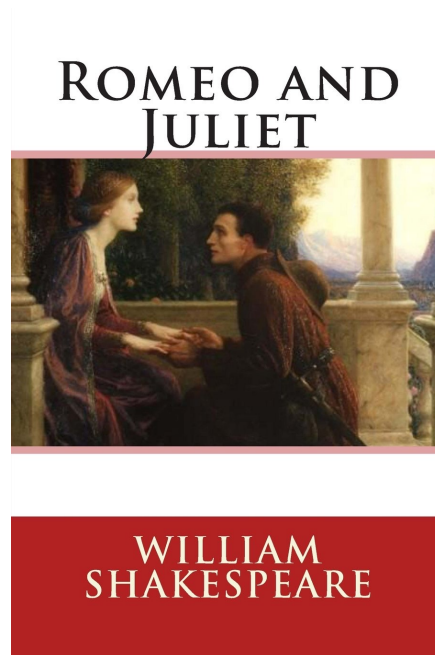


Recap Exercises 00-04

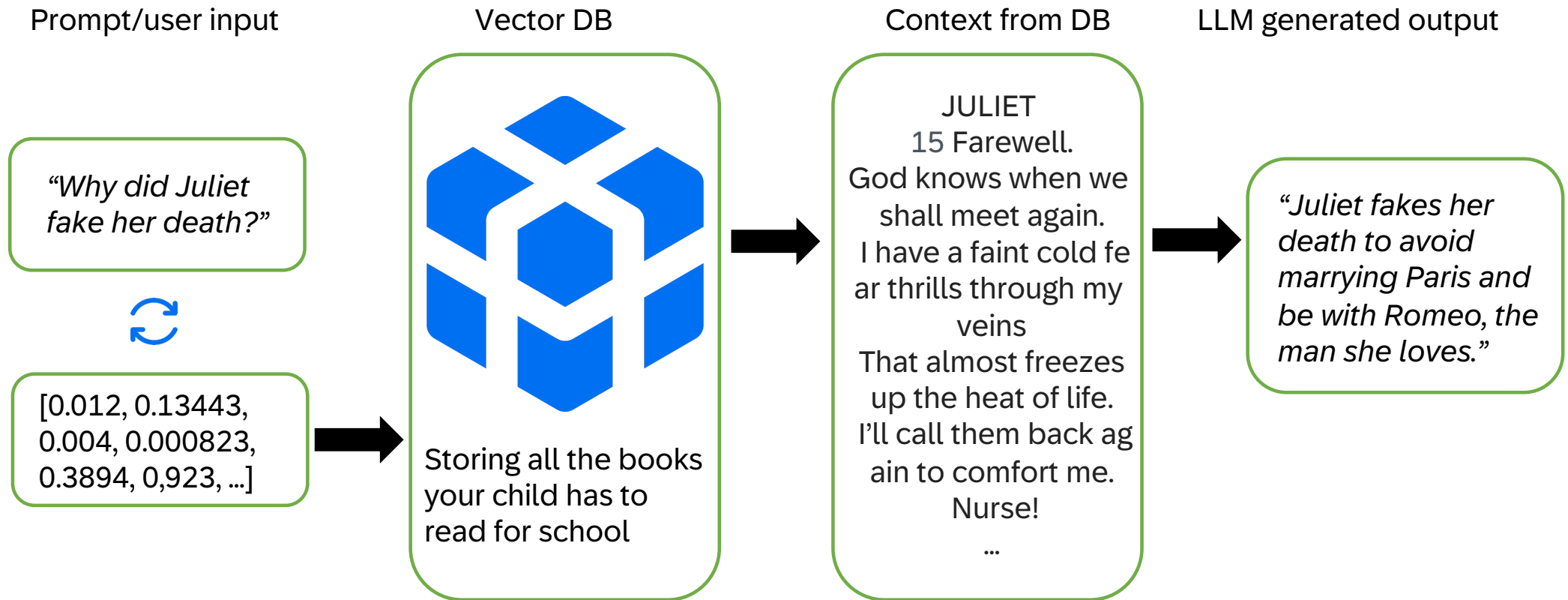
Retrieval Augmented Generation - Problem



#BookTok



Retrieval Augmented Generation - Solution



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

AI Foundation

on SAP Business Technology Platform

SAP AI Services

Document Information
Extraction

Data Attribute
Recommendation

Personalized
Recommendation

SAP Translation
Hub

AI Lifecycle Management

Generative AI Hub

Business Data & Context

SAP HANA Cloud
Vector Engine

SAP HANA Cloud
knowledge graph engine

SAP Datasphere

SAP Knowledge Graph

Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI application

Orchestration

Grounding

Prompt templating

Content filter

Data masking

LLM access

Generative AI Hub

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI application

Grounding

Orchestration

templating

Content filter

Data masking

LLM access

Generative AI Hub

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI application

Orchestration

Grounding

Prompt templating

Content filter

Data masking

LLM access

Generative AI Hub

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI application

Grounding

Prompt template

Content filter

Masking

LLM access

Generative AI Hub

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC



Relevant

Reliable

Responsible

Joule

A copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain
Management

Human Capital
Management

Spend Management
and SAP Business
Network

SAP Customer
Relationship
Management

SAP Business
Technology Platform

Your customized
AI application

Orchestration

Grounding

Prompt templating

Content filter

Data masking

Access

Generative AI Hub

on SAP Business Technology Platform

AI ecosystem partnerships and investments



ANTHROPIC





Exercises 05-11



Recap Exercises 05-end