



Developer's Challenge Using Artificial Intelligence

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Las Vegas

2024

SAPinsider

AI buzzwords

fine-tuning

retraining

ChatGPT

langchain

Large Language Model (LLM)

hallucination

Foundation Model

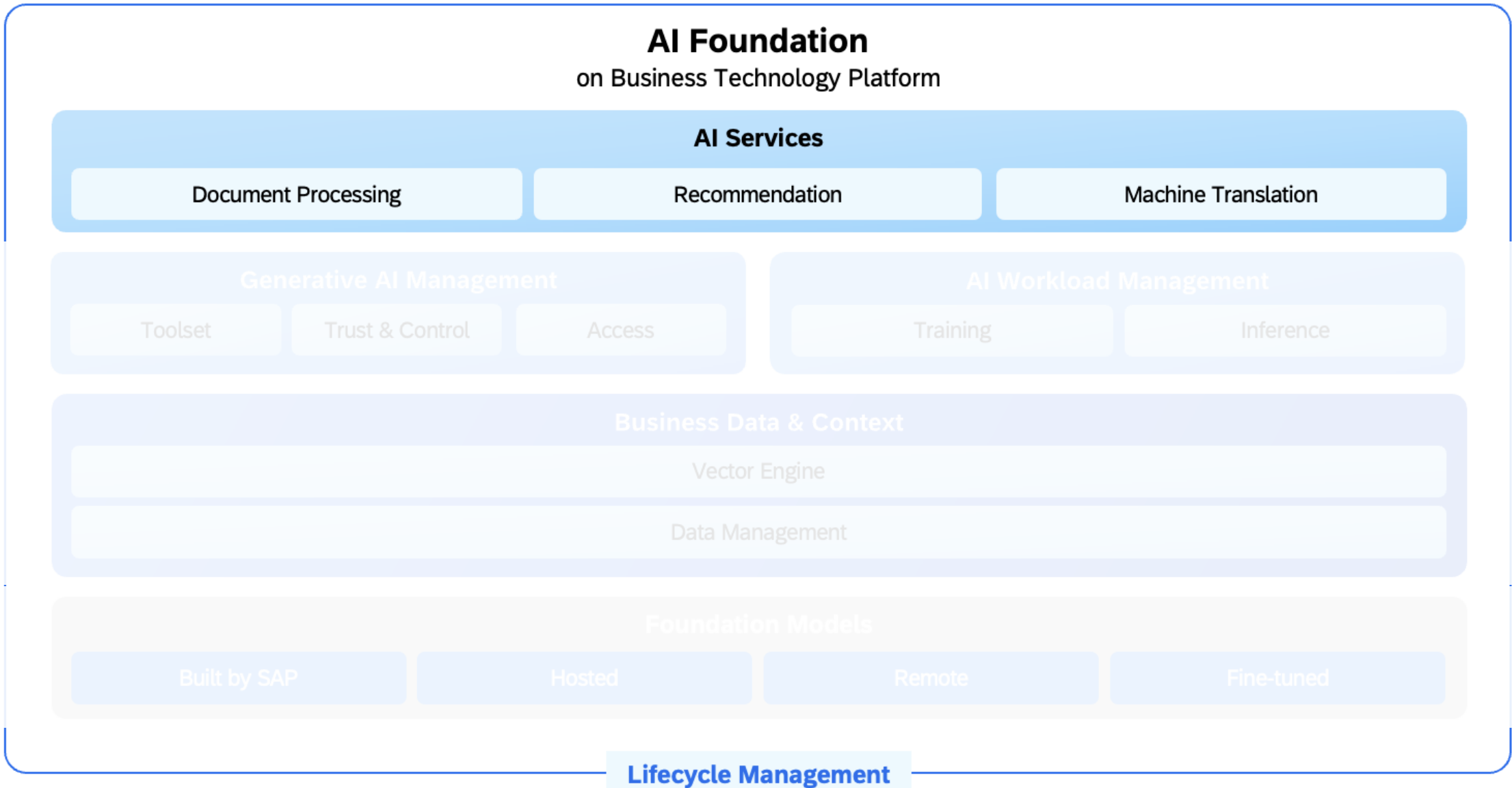
Transformer

Generative Pretrained Transformer (GPT)

Retrieval Augmented Generation (RAG)

Agents

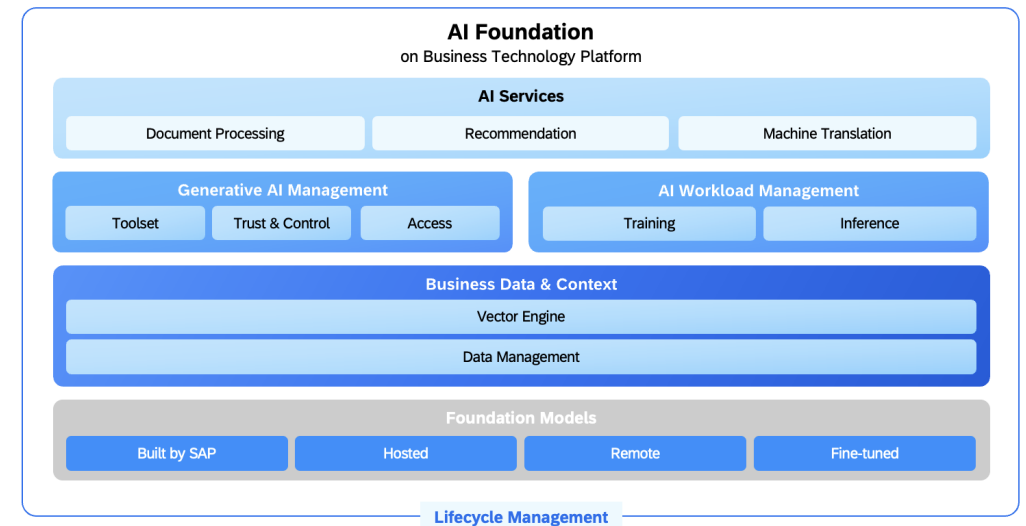
A complete set of services for AI developers on SAP BTP



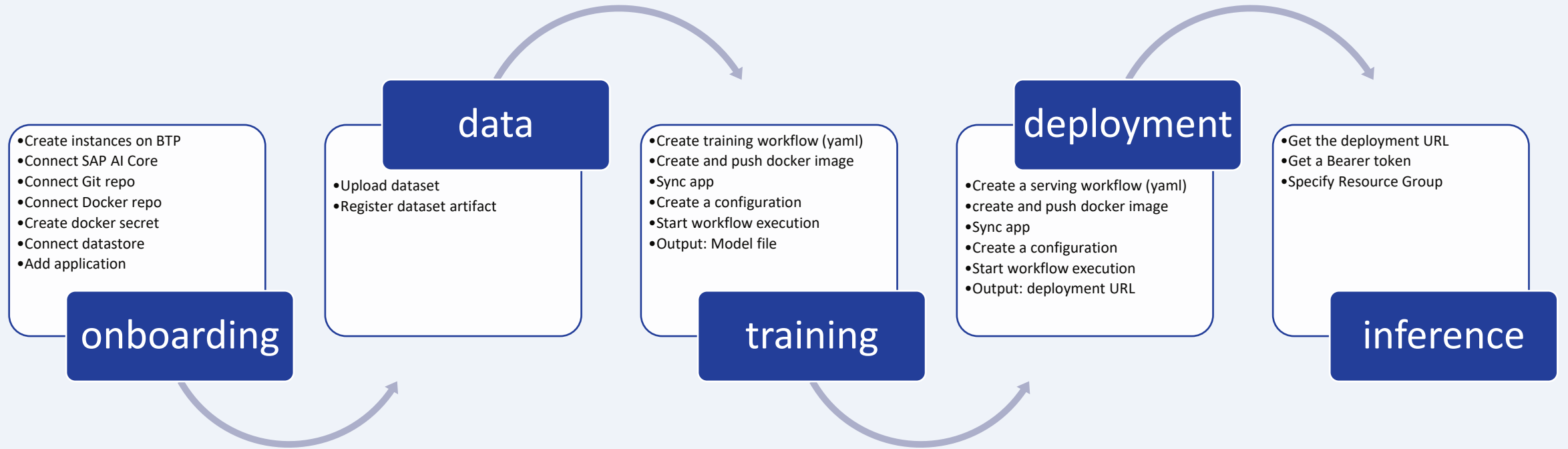
AI Foundation

- AI Services: Document Information Extraction, Data Attribute Recommendation, Personalized Recommendation, Machine Translation
- Generative AI Management: generative AI hub
- AI Workload Management: SAP AI Core, SAP AI Launchpad
- Business Data & Context: SAP HANA Cloud, Vector Engine, Predictive Analysis Library, SAP Datasphere
- Foundation Models: Partners and hosted Open Source Models

A complete set of services for AI developers on SAP BTP



End-to-End ML Workflow in SAP AI Core



Prompt Engineering

- Make prompt as specific as possible
- Be creative and try different prompts/wording
- Chain-of-Thought Prompts: clear instructions: “first do this then do that”, “if this do that”
- Zero-shot prompting
 - “Translate this sentence from German to English:
Wir sind in Las Vegas!”
- Few-shot prompting (give examples/shots)
 - “Ich heiße Nora. – My name is Nora.
Wir sind in Las Vegas! – ?”
- More complex prompts you can find here:
<https://www.promptingguide.ai/techniques>
- Feed output again and ask for feedback
- Roles in GPT interface to feed history: system, user and assistant

Demo

Let's code!

Ideas SAP Community

- Extract topic experts from SAP Community
- App to summarize most important publications from SAP Community
- Find outdated information in your old blog posts and update automatically
- Find topics that are light on content + propose missing blog posts
- Build a virtual you that knows all your blog posts

Other ideas

- Change ABAP on premise code to ABAP cloud code
- Add a search engine to include up-to-date information
- Build your own support-bot that includes the info from all the websites and documentation you commonly use
- Build yourself an expert on a certain topic e.g. support of partner takes to long to respond? Build your own support bot for that partner
- Clone yourself for all the topics that you are being asked repeatedly to reduce your own workload

Where to Find More Information

<https://www.youtube.com/watch?v=MEJJnzNjGKE>

- SAP Developers YouTube Channel tutorial video on prompting generative AI hub

<https://www.youtube.com/watch?v=PoZxanevWa4>

- Devtoberfest Session on Large Language Models by Karim Mohraz

<https://developers.sap.com/tutorials/ai-core-generative-ai.html>

- Tutorial on how to use generative AI hub on SAP AI Core

Dhrubajyoti Paul, “Prompt LLMs in the generative AI hub in SAP AI Core & Launchpad”

<https://developers.sap.com/group.ai-core-get-started-basics.html>

- Tutorial Group on how to develop an end-to-end ML workflow in SAP AI Core

Dhrubajyoti Paul, “Create Your First Machine Learning Project using SAP AI Core”

<https://pypi.org/project/generative-ai-hub-sdk/>

- SDK documentation for the Python SDK of generative AI hub

<https://github.com/SAP-samples/sap-tech-bytes/tree/2024-29-01-generative-ai-hub>

- Example code for a retrieval augmented generation use case for question answering using generative AI hub and the Python SDK

<https://community.sap.com/t5/technology-blogs-by-sap/hands-on-tutorial-leverage-sap-hana-machine-learning-in-the-cloud-through/ba-p/13495327>

- Hands-on-tutorial on SAP HANA ML

<https://github.com/SAP-samples/hana-ml-samples/tree/main>

- Repo with SAP HANA ML examples

<https://github.com/SAP-samples/hana-ml-py-codejam/tree/main>

- CodeJam content SAP HANA ML by Witalij Rudnicki

Thank you! Any Questions?

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