

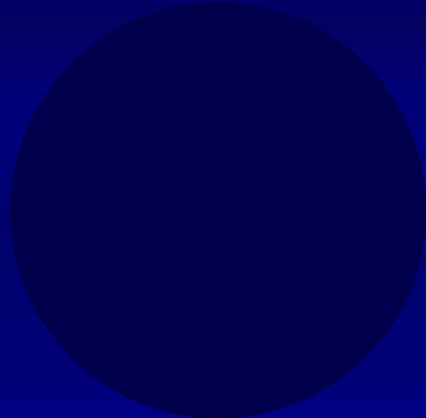
EnBW LernGPT

Millions of employees' prompts
served proudly with MongoDB



Timm Friebe, EnBW

MongoDB Day, Frankfurt am Main, 30.09.2025

A large, solid dark blue circle located in the lower right quadrant of the slide.



Timm Friebe

1999 – 2019 @ IT | 2019 - ... @ HR

November 2022



February 2023

```
3 use Throwable as Any;  
4 use com\enbw\hr\lerngpt\inject\Inject;  
5 use com\amazon\aws\lambda\Lambda;  
6 use com\mongodb\{Collection;  
7 use inject\Injector;  
8 use lang\{IllegalAccessError;  
9 use text\json\Json;  
10 use util\{Date, Secret;
```

```
11 class Chat extends H  
12 const MODEL= 'gpt  
13 const BUFFER_SIZ  
14 const TEMPERATUR  
15 'questions'  
16 'conversation'  
    instorming' => 0.3,  
    => 0.9,
```

EnBW World

Wir sind in 11 Ländern aktiv.
We are represented
in 11 countries.

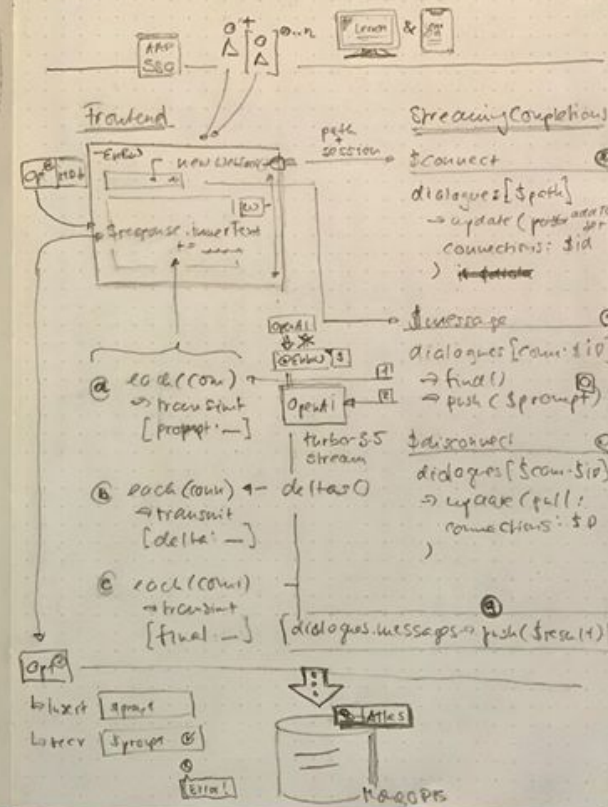


Mehr Infos dazu auf
EnBW World im
Intranet.

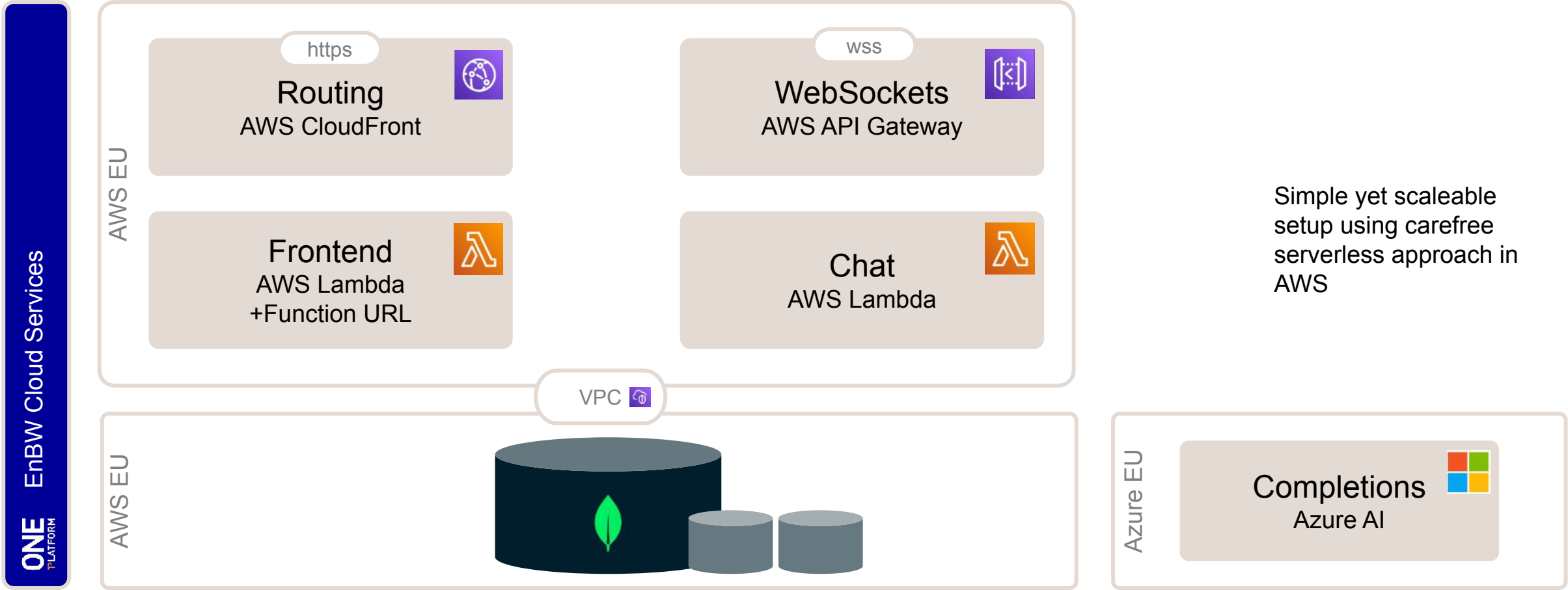
For more information, have
a look at EnBW World on the
intranet.

o LernGPT

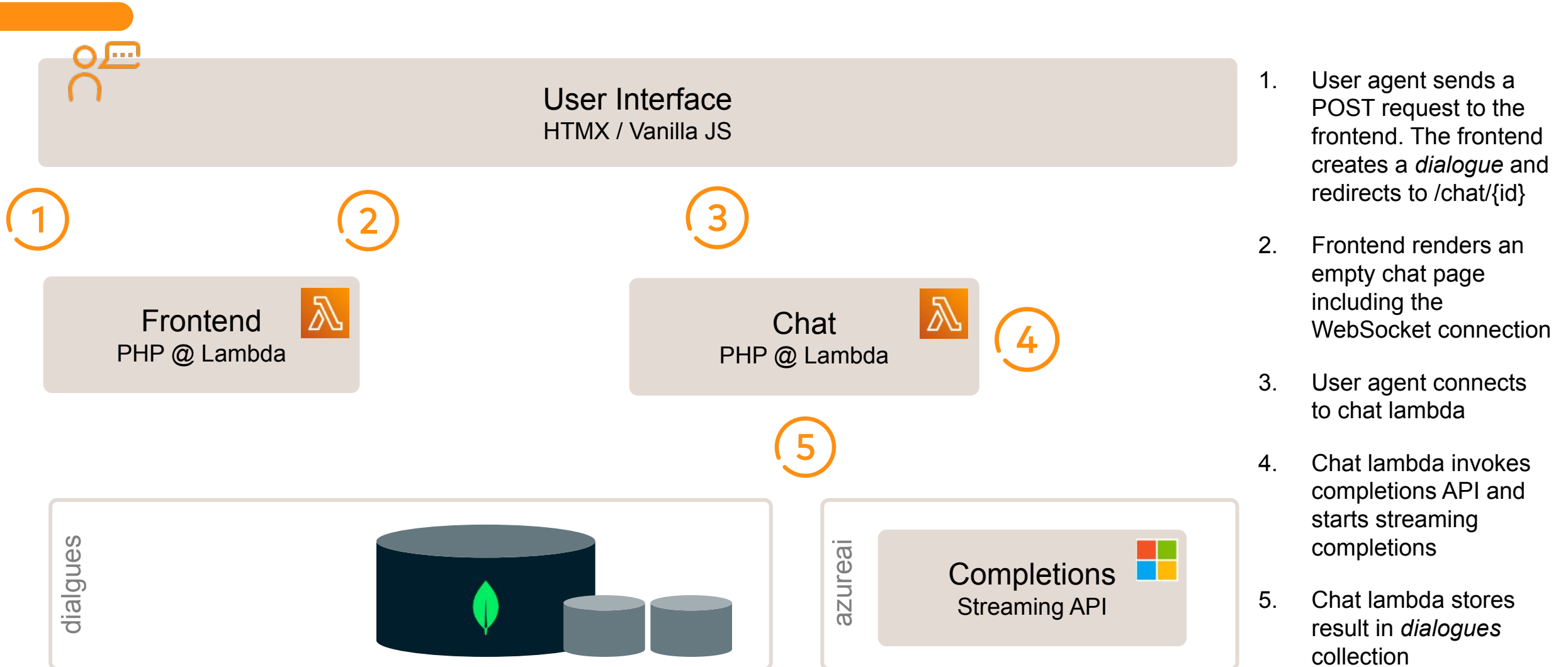
K&S 2025



Architecture



Anatomy of a chat



Welcome to LernGPT

First official release after
being approved by all
necessary internal
committees ;)



The screenshot shows the EnBW LernGPT web application. At the top, there's a blue header with the EnBW logo and 'LernGPT'. Below the header, a greeting 'Hallo Timm' is followed by a brief description of the application. A date badge for 'Jul 17 2023' is visible. A main section titled 'ChatGPT: Die neue Ära der virtuellen Assistenten - wo liegen Potentiale für uns?' includes an 'Online event' link and a description. Below this is a large text input area with a 'KI-Modus:' section containing buttons for 'Frage', 'Unterhaltung', and 'Brainstorming', and a 'Los geht's!' button. A navigation bar shows 'GRUNDLAGEN', 'VERTIEFUNG', and 'FÜR TECHIES'. The bottom section, 'Diese Hands-on Trainings lassen dich, jeweils anhand eines Beispiels, die Grundfunktionalitäten von ChatGPT entdecken.', features four training cards: 'GPT Usecase: Übersetzung', 'ChatGPT: Viele Einsatzmöglichkeiten bei der EnBW', 'GPT Usecase: Alltagsfragen', and 'GPT Usecase: Abendessen'. Each card has a 'Training abgeschlossen' status and a 'Veröffentlicht' timestamp.

Contents from our LXP



Never go alone



After the answer has been streamed, the LLM is asked to extract keywords...

The screenshot shows a web application titled "EnBW LernGPT - Moderationstipps - Chat - LernGPT". The main content area displays a chat conversation. The user's question is "Was kannst du mir noch über aktives Zuhören erzählen?". The response from the LLM provides a definition of active listening and a list of five tips: 1. Konzentriere dich auf den Sprecher, 2. Stelle Fragen, 3. Wiederhole und paraphrasiere, 4. Vermeide Unterbrechungen, and 5. Zeige Empathie. Below the response are tags for "Moderation", "Kommunikation", "Zuhören", "Empathie", and "Fragenstellen". The source is cited as "Quelle: ChatGPT 3.5".

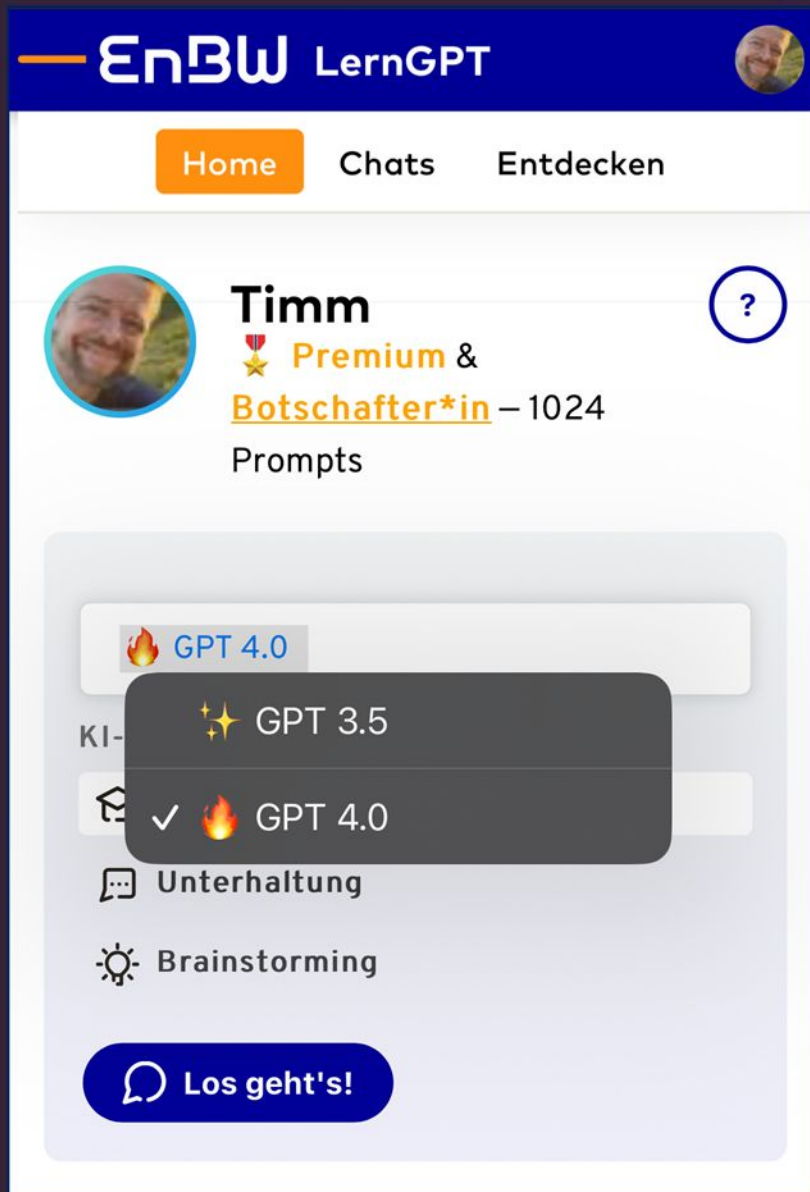
On the right side of the interface, there is a section titled "Aus dem LernWerk" which lists six colleagues with their names and roles: Michael Scheid (EnBW H-TP), Anja Lohmann (EnBW H-TP), Diana Sehringer (EnBW H-SUP), Elena Geißer (EnBW C-K), Hannah Sandler (NETZ TNI), and Doyin Adewunmi (EnBW H-TP). Below this is a section titled "Erfolgreiche Kommunikation: Die Kunst, gute Fragen zu stellen // Rolf Schmiel" with a brief description and tags for "Kommunikation", "Zusammenarbeit", and "Aktives Zuhören". At the bottom right, there is a "Campus Kommunikation" section with a "HUB" label and tags for "Kommunikationsdesign", "Kommunikation", and "Kommunikationstraining". A video link "Video: Aktives Zuhören" is also present.

...and then invokes a search on colleagues with the relevant areas of expertise.



Powered by Atlas Search





December 2023

GPT 4

Introducing GPTs

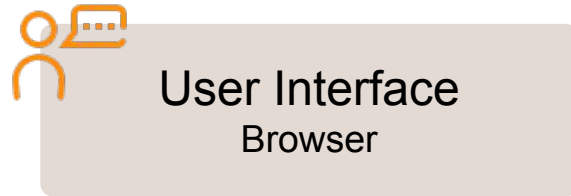
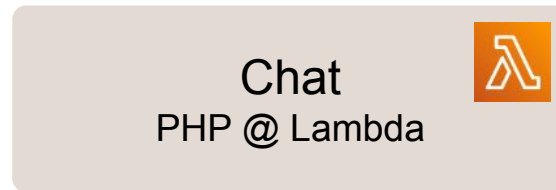
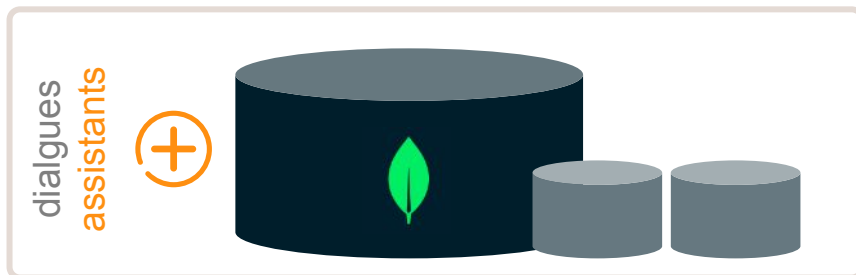
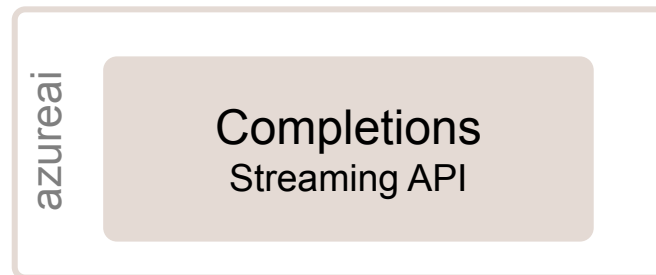
“You can now create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills”.

OpenAI announcement
November 2023



Including the system prompt

When starting a chat,
we additionally query
the *assistants* collection
and read the
instructions

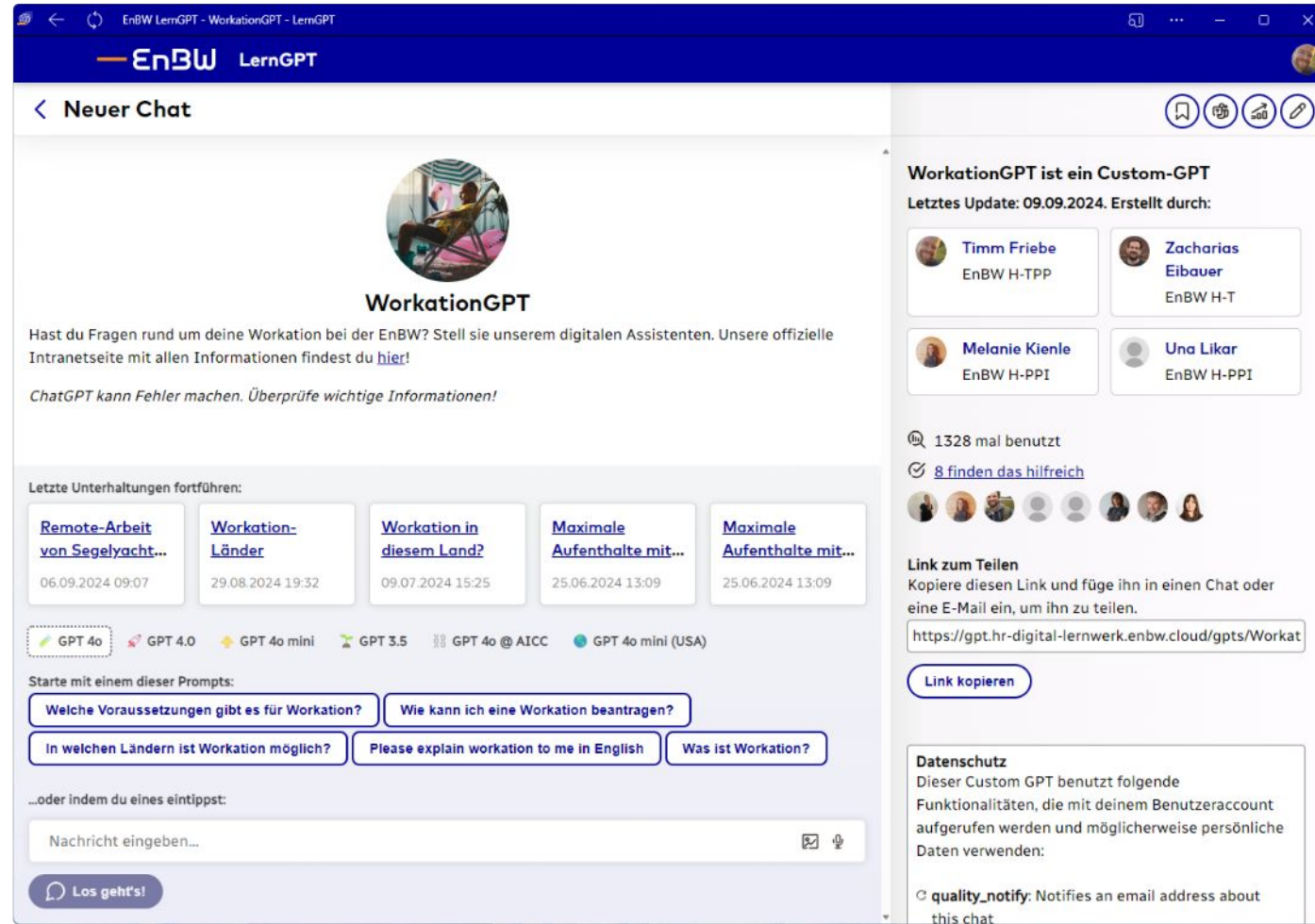


```
$ curl https://api.openai.com/v1/completions \
-H "Content-Type: application/json" \
-H "Authorization: Bearer $OPENAI_API_KEY" \
-d '{
  "model": "gpt-3.5-turbo-instruct",
  "messages": [
    {"role": "system", "content": "You are ..."},
    {"role": "user", "content": "$PROMPT"}
  ],
  "stream": true
}'
```

The system prompt is simply prepended to the messages array

Custom GPTs – no-code „AI apps“

CustomGPTs started out as the possibility to edit the system prompt and a couple of smaller UI settings.



Anyone can create a CustomGPT in a matter of seconds – no coding necessary.



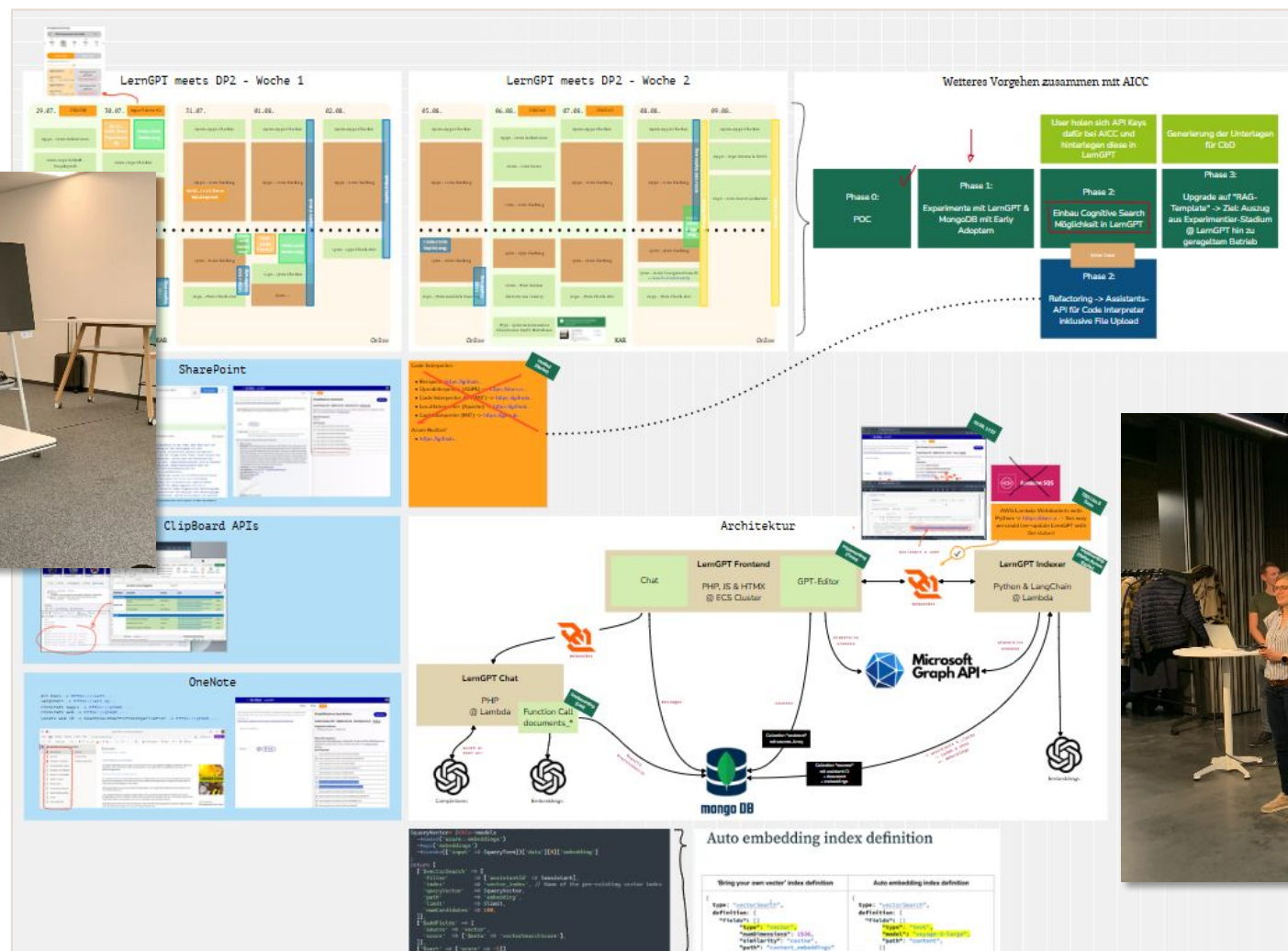
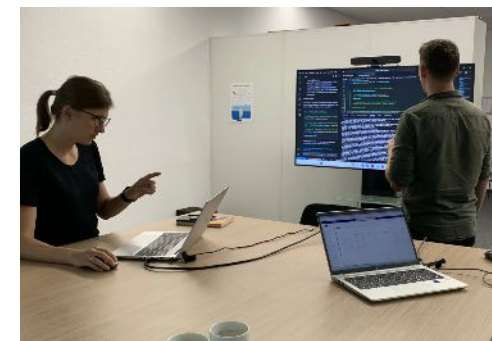
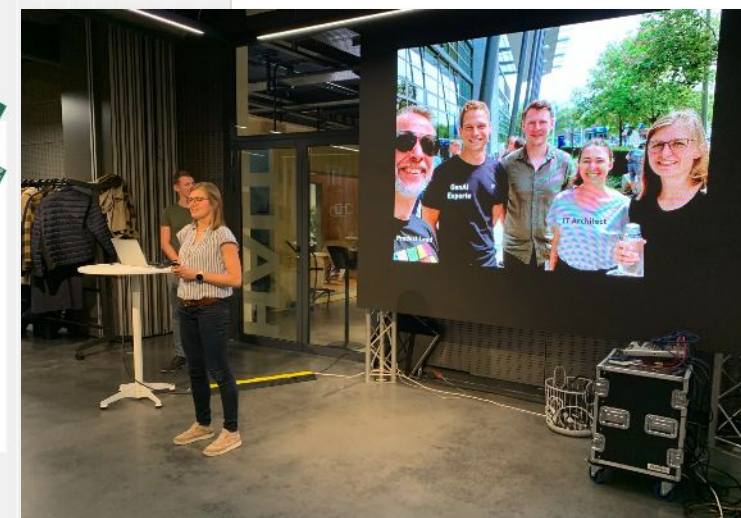
GPTs are created by a GPT – and function calling





August 2024

LernGPT meets DP²



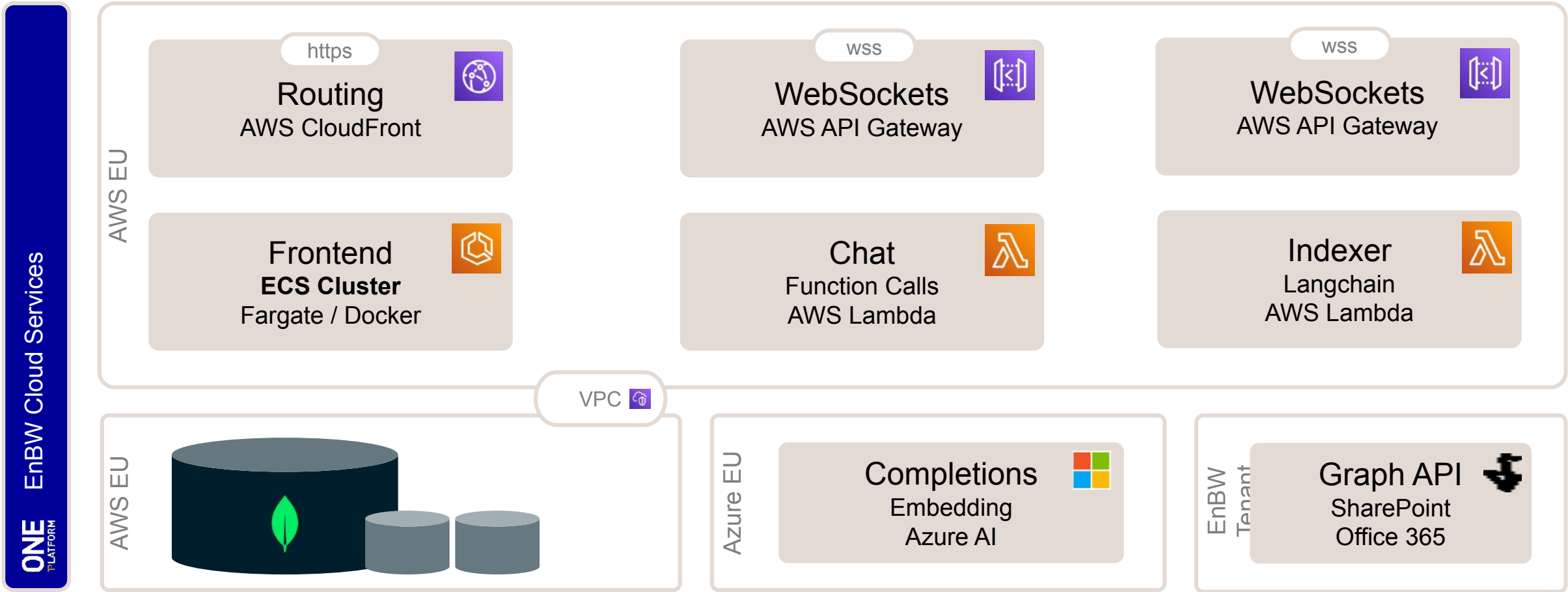
Architecture

User Interface
Browser

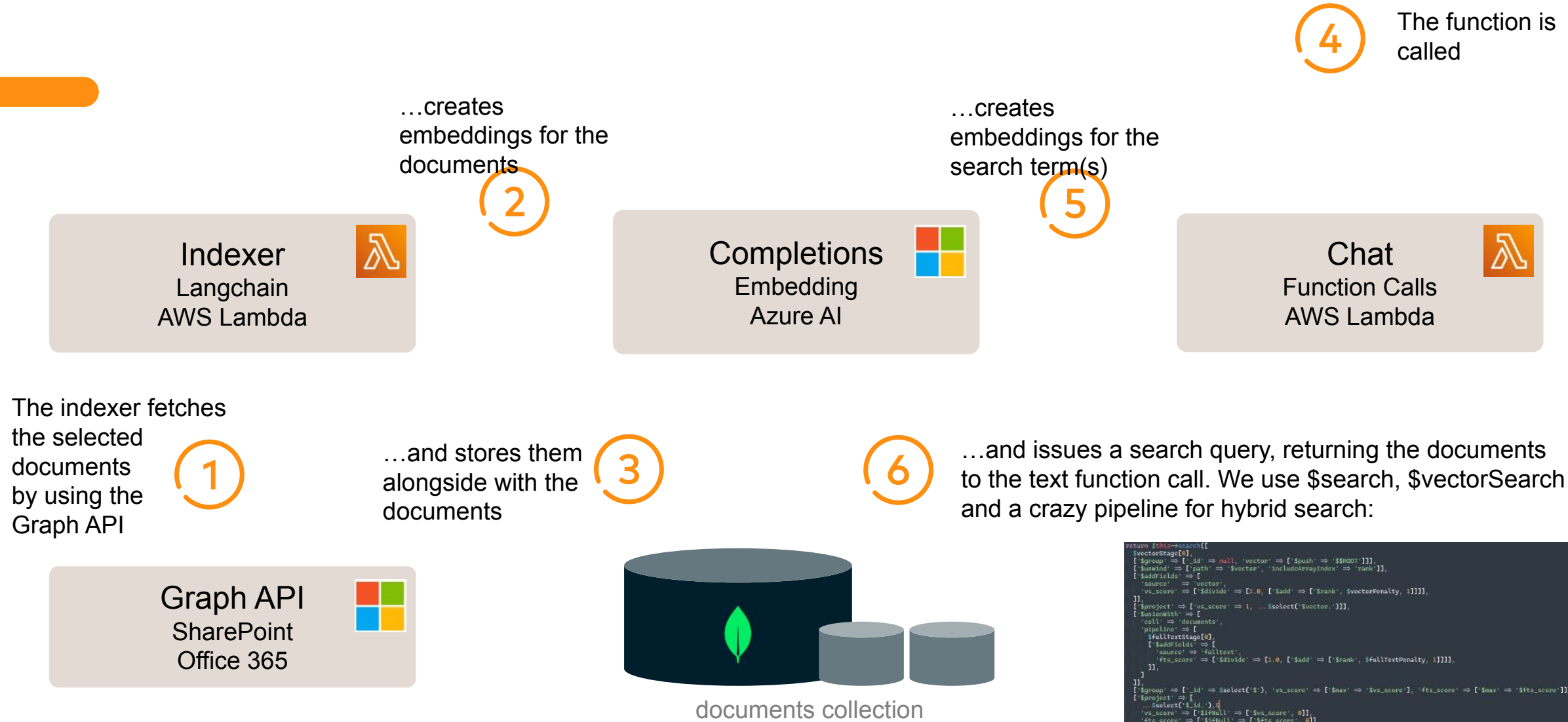


OAuth

We built the indexer in Python
and the retrieval part as a GPT
function call



Our simple RAG system



Importing documents & testing search

Here, you can see the function call to *fullTextSearch* in action

The screenshot displays the EnBW LernGPT web application. The top navigation bar includes 'Home', 'Chats', and 'GPTs'. The main content area is titled 'WorkationGPT bearbeiten' and features a 'Speichern' button. Below the title, there are tabs for 'FUNKTIONALITÄT', 'OBERFLÄCHE', 'CHATS', 'TOOLS', and 'DATEN'. The 'DATEN' tab is active, showing instructions on how to import data sources. A list of data sources is displayed, including 'SharePoint-Seiten: TeamIntranet - Mobiles Arbeiten (2)' and 'Dateien: HR International > Documents > Workation (2)'. An 'Importieren' button is visible. On the left side, a chat window shows a user's query: 'Kann ich auf La Reunion Workation machen?'. The chat response includes a function call: `documents_fullTextSearch ({ "query": "La Reunion", "limit": "5" })`. The response text states: 'Ja, du kannst auf La Réunion eine Workation machen. La Réunion gehört zu den zugelassenen Ländern innerhalb der Europäischen Union, in denen Workation möglich ist. Weitere Informationen findest du auf der [Workation-Seite im Intranet](#).' The source is listed as 'Quelle: azure:gpt-omni' and the timestamp is '10.9.2024, 09:35:32'.

Users select the data source(s) they want to import from. These are stored in the assistant's *sources* – the „import“ button then controls the indexer via WebSocket.



