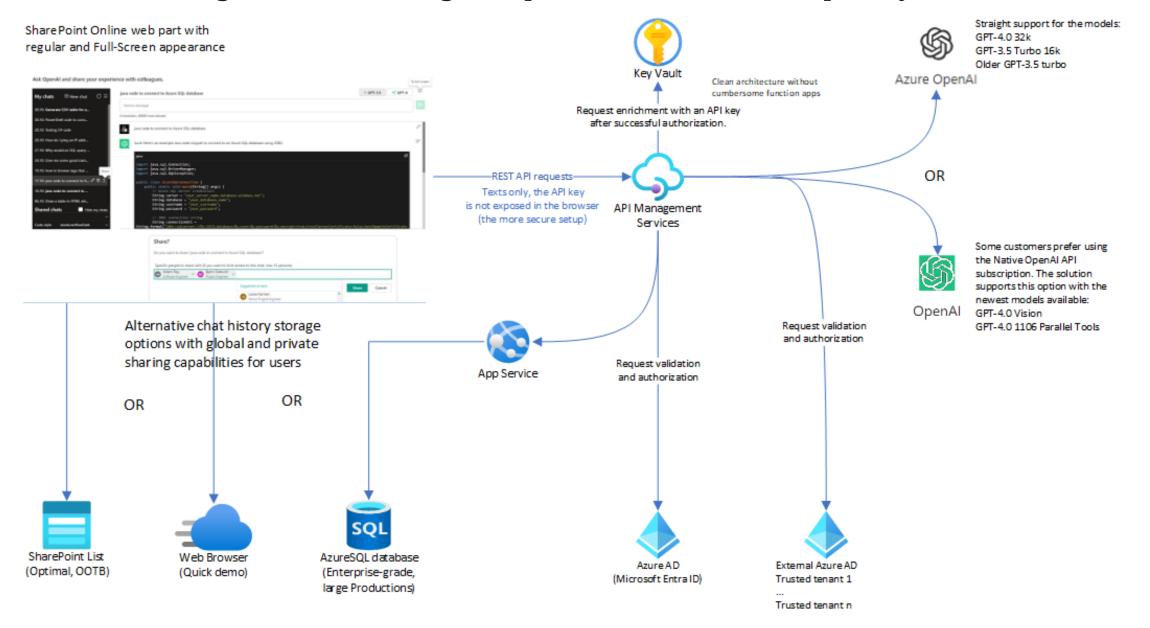
AZURE OPENAI CHAT WEB PART FOR SHAREPOINT ONLINE

Paul Borisov, Cloud Architect

Data Access Diagram: the following slide provides details on data privacy



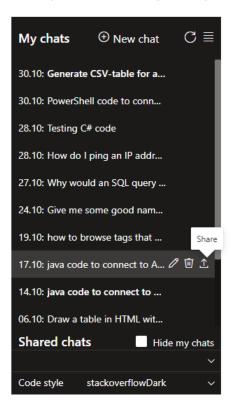
Data Privacy

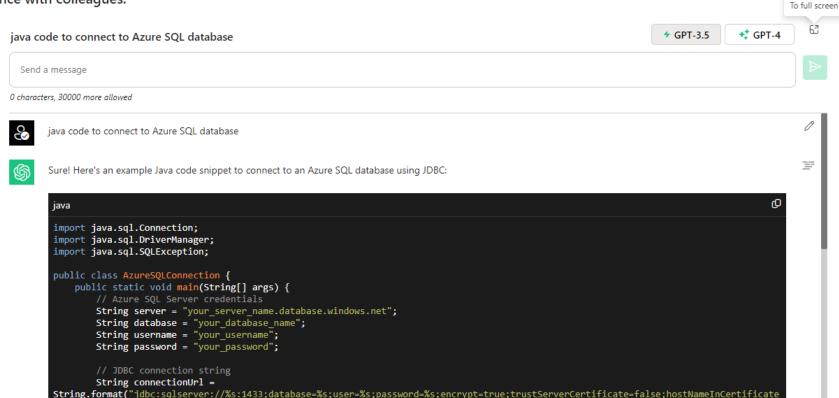
Azure OpenAI Chat web part interacts with private **Azure OpenAI** endpoints that are published via Azure API Management service (APIM).

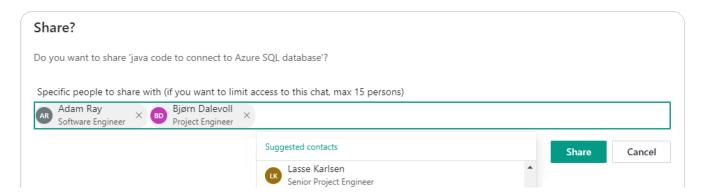
- By default, this setup provides enhanced data privacy. In this configuration, requests to AI do not travel outside your Azure tenant.
- APIM consistently validates the identities of SharePoint users for each individual request.
 If the request originates from authorized domains, APIM retrieves the **api-key** from
 the secure vault and injects it into the request before forwarding it to the AI endpoint.
 This process ensures that the api-key does not get exposed in the browser.
- In addition to the default configuration, you have the option to publish the Native Open AI endpoint in APIM. You can find instructions in the project documentation.
 - **CONS**: Granting access to the Native Open AI endpoint requires a separate **api-key** for it and could potentially compromise data privacy, as requests might travel outside your Azure tenant under this setup.
 - PROS: Using the Native OpenAI endpoint could grant you access to the latest language models like GPT-4 Vision and GPT-4 1106 Parallel processing that are not currently available in Azure OpenAI.

User Interface

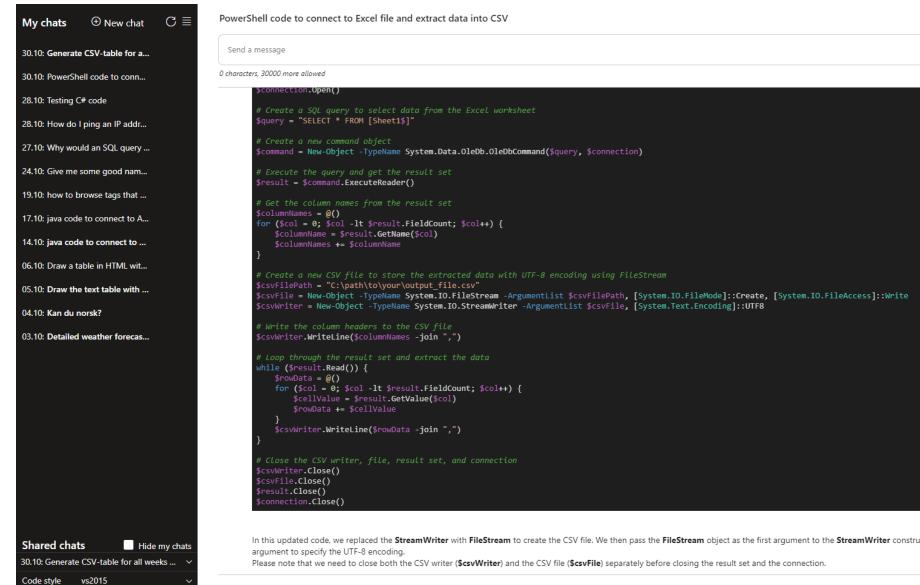
Ask OpenAI and share your experience with colleagues.







Full-Screen Mode



LLM: gpt-4-32k In this updated code, we replaced the StreamWriter with FileStream to create the CSV file. We then pass the FileStream object as the first argument to the StreamWriter constructor, and [System.Text.Encoding]::UTF8 as the second

∳ GPT-3.5

+‡ GPT-4

Features

Key features

- Support for the latest text language models provided by Microsoft and Native OpenAI: GPT-4 32k, GPT 3.5 16k, GPT-4 Vision, GPT-4 1106, GPT-3.5 1106
- Unlimited Chats and Unlimited Chat History Length
- Chat Sharing: Unlimited for Everyone and Private for a limited number of Members
- Support for Full-Screen Mode. Support for Regular and Full-Width Site Page Sections
- Mobile-Friendly UI with simple customizations (CSS)
- Event Streaming to provide consecutive outputs of Al-responses
- Code Highlighter with options to select Highlight Styles.
- Upper and Lower Side positioning for the Prompt Area Textbox
- Full-Scale Localizations: English, Finnish, and Norwegian
- Optional integrations with company data. For security reasons, these integrations are disabled by default and must be explicitly enabled in the web part settings.
 - SharePoint Search
 - Company Users
 - · Local Date and Time
 - · Analysis of an uploaded PDF and summarization of its content
 - Analysis of uploaded images and description of their content. As of November 2023, Image Analysis is only available with the Native OpenAI endpoint.

Advanced features

- Built-in integration with API Management Service.
 - For customers that do not have it, the web part also supports direct queries to API with an api-key (configurable)
- Seamless support for Azure OpenAI and Native OpenAI API
- Alternative storage types to manage Chat History
 - SharePoint List: Supports up to 5000 Chats, Built-in "One-Click" list provisioning, Chat Privacy and Security Trimming for SharePoint Search
 - Azure SQL Database: Provides Enterprise-grade performance, Tested on 1 Million+ Chat records
 - Local Storage: it can be used to provide quick demo without long-time configurations

Optional Integrations: SharePoint Search, Company Users, Local Date & Time

How it works

The Function Calling feature is available in both Azure OpenAI and Native OpenAI (more advanced version). The flow for using this feature typically looks like:

- 1. In the process of interacting with OpenAI, you can send a request with options to call available integration functions that you have provided.
- 2. If OpenAI determines that it requires specific data, it will request to call a function with parameters that it deems suitable.
- 3. To meet OpenAI's demand, you can call the function with the proposed parameters on behalf of OpenAI. This allows you to obtain raw results locally, which you can then submit to OpenAI. You have control over what data you submit.
- 4. If OpenAI determines that it needs more information, it may demand calling another function, and this process can continue as necessary.
- 5. OpenAI handles the received data and transforms it as you have requested. The final response from OpenAI will include the results based on the processed data

```
// 3 show cases available in the web part:
// Search in SharePoint for "your text". Format the results as an HTML table.
// Get company users that have names starting with P. Format the results as an HTML table.
// Date, Time, Date and time.
export default class FunctionHelper {
   private static available: { [key: string]: any } = {
      companyUsers: this.companyUsers,
      currentDateOrTime: this.currentDateOrTime,
      currentDateAndTime: this.currentDateAndTime,
      peopleSearch: this.companyUsers,
      searchSharepoint: this.searchSharepoint,
};
```

Integrations

Find in SharePoint "IDD Questionnaire" and show search results as HTML table



Find in SharePoint "IDD Questionnaire" and show search results as HTML table



Here are the search results for "IDD Questionnaire" in SharePoint:

Title Annex 3 - IDD Questionnaire for Corporates Olivia Roca;SP Admin 85,822 bytes Link

Annex 4 - IDD Questionnaire for State Owned Entities (SOEs) Olivia Roca;SP Admin 85,302 bytes Link

Annex 5 - IDD Questionnaire for Municipalities, Ministries and Other Government Agencies Olivia Roca;SP Admin 84,004 bytes Link



Show me company employees with names that start with p



Here is a list of company employees with names that start with the letter "P":

- Patti Fernandez
- Pradeep Gupta
- S

Show me company employees with names that start with H



Here are the company employees with names that start with the letter "H":

- Harri Niemeläinen
- Henrietta Mueller

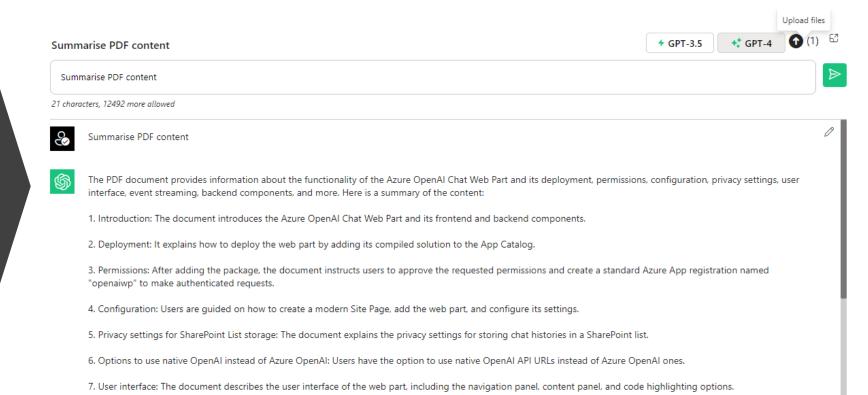


Date and time are...



The current date is November 10, 2023, and the current time is 12:02:22. If you have any more questions or need further assistance, feel free to ask!

Upload and Summarize PDF content

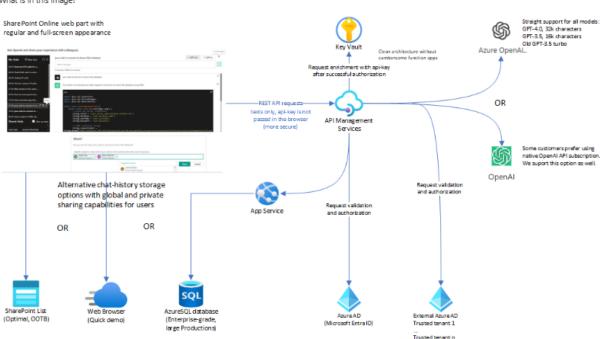


Using GPT-4 Vision for Image Analysis: a Technical Diagram

What is in this image?



What is in this image?





The image appears to be a flowchart or architectural diagram relating to a software or web application. It includes various components and services that interact with each other to support the application's functionality. Here are the components and descriptions visible in the diagram:

- 1. **SharePoint Online web part**: The image at the top left shows a SharePoint Online web part that can be displayed with both regular and full-screen appearance. This is likely a user interface component for displaying content.
- 2. **API Management Services**: Positioned in the center-right of the image, this service seems to handle REST API requests, request validation, and authorization, acting as a gateway between clients and backend services.
- 3. **App Service**: A central component on the left side of the diagram, identified with the Azure logo, which suggests that it's an Azure App Service used to host web applications.
- 4. **Key Vault**: Shown linking to the API Management Services and marked with text indicating that it enriches requests with an API key after successful authorization, which implies security and configurations management.
- 5. **OpenAl**: Mentioned on the right side of the image with a note that some customers prefer using their OpenAl subscription, indicating integration with Al services provided by OpenAl.
- 6. **Azure AD (Microsoft Entral ID)** and **External Azure AD**; Components for identity and access management.
- 7. **AzureSQL database (Enterprise-grade, large Productions)**: A cloud-based database service indicated for production-grade, larger-scale usage.
- 8. **Storage options**: At the bottom left, there are three alternatives presented for chat-history storage: SharePoint List, Web Browser (Quick demo), and AzureSQL database.

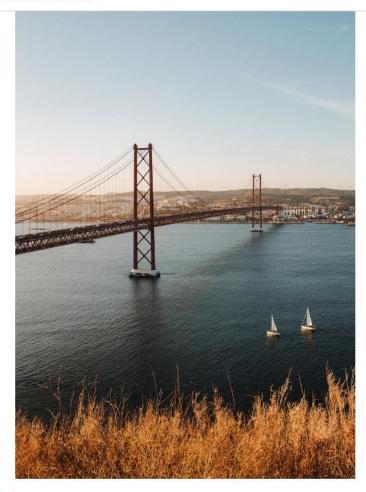
The image also contains annotations related to support for different GPT models, such as GPT-4.0, and the mention of secure transmission of API keys. Overall, the diagram seems to describe a web application architecture that leverages Azure cloud services and offers flexibility in terms of AI integration and user history storage.

Using GPT-4 Vision for Image Analysis: a Photo

What is in this image? Can you recognize this place?

Send a message

0 characters, 15000 more allowed





This image features the 25 de Abril Bridge in Lisbon, Portugal. You can recognize it by its distinctive red color, similar in style to the Golden Gate Bridge in San Francisco, USA. The bridge spans the Tagus River, and in this image, you can also see a dry, grassy foreground that gives a golden hue to the lower part of the photograph. Additionally, there are two sailboats visible on the water, providing a sense of leisure and maritime activity. The sky is clear, which suggests that the photo was taken on a day with good weather.

Azure OpenAI Chat web part for SharePoint Online, configurable options

Azure OpenAl Chat	Azure OpenAl Chat $ imes$	Azure OpenAl Chat $\qquad \qquad imes$	Azure OpenAl Chat $\qquad \qquad imes$
Settings	Settings	Settings	Settings
Client ID: create a user_impersonation app with name=openaiwp	Client ID: create a user_impersonation app with name=openaiwp	Client ID: create a user_impersonation app with name=openaiwp	Client ID: create a user_impersonation app with name=openaiwp
98765432-1234-5678-9876-543210123456	98765432-1234-5678-9876-5432101234	98765432-1234-5678-9876-5432101234	98765432-1234-5678-9876-5432101234
Base URL for GPT endpoint (APIM API or full)	Base URL for GPT endpoint (APIM API or full)	Base URL for GPT endpoint (APIM API or full)	Base URL for GPT endpoint (APIM API or full)
https://tenant.azure-api.net/openai	https://tenant.azure-api.net/openai	https://tenant.azure-api.net/openai	https://tenant.azure-api.net/openai
Base URL for GPT4 endpoint (APIM API or full)	Base URL for GPT4 endpoint (APIM API or full)	Base URL for GPT4 endpoint (APIM API or full) https://tenant.azure-api.net/openainative	Base URL for GPT4 endpoint (APIM API or full)
https://tenant.azure-api.net/openai4	https://tenant.azure-api.net/openainative	Base URL for Chat WebApi (APIM API or	https://api.openai.com/v1/chat/completior
Base URL for Chat WebApi (APIM API or full)	Base URL for Chat WebApi (APIM API or full)	full)	Base URL for Chat WebApi (APIM API or full)
		Optional api-key for Azure OpenAI (for troubleshooting, not for Production)	
Optional api-key for Azure OpenAI (for troubleshooting, not for Production)	Optional api-key for Azure OpenAl (for troubleshooting, not for Production)		Optional api-key for Azure OpenAl (for troubleshooting, not for Production)
		Language models	会会会会会
Language models	Language models	gpt-35-turbo-16k,gpt-4-1106-preview Storage type for chat history	Language models
✓ GPT-3.5	gpt-35-turbo-16k,gpt-4-1106-preview	SharePoint list V	gpt-35-turbo-16k,gpt-4-1106-preview
GPT-4 Storage type for chat history	Storage type for chat history	SharePoint list URL (leave it empty for	Storage type for chat history
Database V	Database	default URL)	Local storage V
✓ Enable sharing ✓ Enable streaming ✓ Enable full screen mode ✓ Enable integrations ✓ Code highlighting ✓ Show highlighting styles	 Enable sharing Enable streaming Enable full screen mode Enable integrations Code highlighting Show highlighting styles 	Create Deploy in 1 click Enable sharing Enable streaming Enable full screen mode Enable integrations Code highlighting	 Enable sharing (demo only) Enable streaming Enable full screen mode Enable integrations Code highlighting Show highlighting styles
Default style	Default style	Show highlighting styles	Default style
stackoverflowDark Show prompt area at bottom Unlimited chat history length (Alresponses in long chats may be less accurate) Locale for dates (default is fi-FI)	stackoverflowDark Show prompt area at bottom Unlimited chat history length (Alresponses in long chats may be less accurate) Locale for dates (default is fi-FI)	Default style stackoverflowDark Show prompt area at bottom Unlimited chat history length (Alresponses in long chats may be less accurate) Locale for dates (default is fi-FI)	stackoverflowDark Show prompt area at bottom Unlimited chat history length (Alresponses in long chats may be less accurate) Locale for dates (default is fi-FI)