

# **Commenting Power Query with Azure OpenAl**

January 24, 2024

# **Agenda**

- The Challenge
- Commenting Power Query
- Azure OpenAl
  - Demo
- Lessons Learned

## **About Me**

## **Experience**

- •11+ years with Microsoft BI stack
- •8+ years with PowerPivot/Power BI
- •5+ years with Azure DevOps

#### **Contact Me**

X @JKerski

John Kerski

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### **Credentials**

• MCSE: Productivity

• MS: PBI Data Analyst

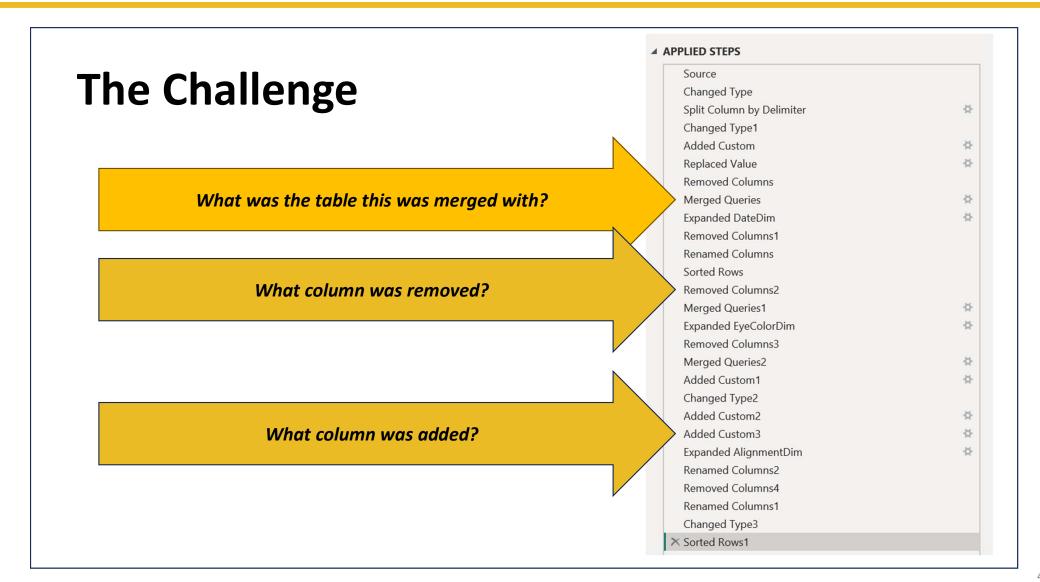
• PMP







John Kerski







# Can Artificial Intelligence Help?



# **Prerequisites**

- Premium, Premium Per User or Fabric Workspace
  - Requires XMLA connection
- Azure OpenAl
  - A ChatGPT 4.0 model deployed. Instructions can be followed at this link.

#### **DEMO** Power Query Code Enhancements with a Large Language Model Please select the dataset name, then table name to see the commented code. Right click on the commented code and choose "Copy Value" to copy over to your dataset Select Table Select Enhancement Options MarvelSource Additional Comments Additional Comments & Variable Name Changes **Power Query** Semantic **Enhancements with** #"Source" = Csv.Document(Web.Contents(WebURL),[Delimiter=",", Columns=13, Encoding=65001, If This code is utilizing Power Query to import a CSV file from a specified web URL and parse it into a table structure, it also sets the Model QuoteStyle=QuoteStyle.None]), #"Promoted Headers" = Table PromoteHeaders(#"Source", [PromoteAlScalars=true]). qualifying characters are used in the data. #"Source" = Csy Document/Web Contents(Web URL)[Delimiter="", Columns=13, Encoding=65001, QuoteStyle=QuoteStyle=None]), Azure OpenAl #Priorizor Peases - Toda or Introduced pages Source (Priorizoratical Budges) (Page of Italia TransformColumn Types (Priorizorate Headers (Tipege of Italia) TransformColumn Types (Priorizorate Headers (Tipege of Italia) Type (Ext), Typ If This code is promoting the first row of the table referenced as #"Source" to headers. The option PromoteAllScalars' set to true indic #"Promoted Headers" = Table PromoteHeaders(#"Source", [PromoteAllScalars=true]). #Priorized readers \*\* Intel® Frontierreaders w cource (Frontierreaders-are); #This code is transforming the data peer divincis columns within the table "Promoted Headers". Some columns are being converte #Changed Type" = Table TransformColumnTypes(#Promoted Headers" ([\*page\_id" Int64 Type), [\*name", \*type text], [\*Ursbug\*, type 1 [CSSM\*, type text], [\*FALNE\*, type text], [\*PPERRANCES\*, Int64 Type], [\*FRST APPERRANCE\*, type text], [\*View", Int64 Type]]) Report Azure OpenAl (GPT 4.0) https://github.com/kerski/pbi-pq-commenter-with-azure-openai/tree/main

## **Lessons Learned**

## **ChatGPT Prompt Engineering for Developers**

You are an assistant to help Power Query developers comment their code.

Please take the code between the ``` Indicate markers n the following:

- 1) Return a comment explaining what that piece of code is doing.,
- 2) Do not start the comment with the word Step or a number,
- 3) Do not copy code into the comment.
- 4) Keep the comments to a maximum of 225 characters.

``` [Code] ```

Set boundaries

Set the premise

# **Lessons Learned (cont.)**

## **Token Limits**

- 1 token ~= 4 chars in English
  - By Model Microsoft Documentation

# Response M Code + Verbose Comments ~ 6,000 Tokens Prompt + M Code ~ 3,000 Tokens

Strategies - Greg Kamradt

## **Security Considerations**

- Data, privacy, and security for Azure OpenAl Service
- Protect the Key
  - Vote Microsoft make this easier
- Make this Easier
  - Power Query Commenting with Co-Pilot/Large Language Models

# Thank you

## **Contact Me**

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Slides:

