Welcome!

Using OpenAI API with Google Sheets to Automate MR Workflows

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Join Us:

AI for Insights:
How & When to Work With The Leading Platforms

May 1, 2, 7 & 8
1-2:30 p.m. ET

- ✔ **Claude**
- ✔ **Gemini**
- ✔ **Llama**
- ✔ **DeepSeek**
- ✔ **Mistral**
- ✔ **ChatGPT**
- ✔ **Copilot**
- ✔ **More**

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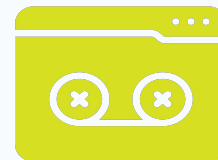ASSOCIATION

BEFORE WE BEGIN

Closed captioning is available in the Zoom menu bar.

Post your questions in the Q&A pod.

Use Chat window for comments + to connect during the webinar!

A recording and slides will be shared.

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Today's Presenter

Alok Jain
CEO, Reveal

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OpenAI + Google Sheets

Alok Jain, Niket Patel (Co-founders, Reveal)

March 27, 2025

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Welcome!!

Our goal is to **empower you** to **actively participate** in AI and **drive** your own **innovations**.

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Quick Intro

- Alok, Niket
  Co-founders, Reveal
  (AI-assisted synthesis
  of qualitative
  research)
- 28 years in research,
  strategy and design
  8 years in AI/ML

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We'll cover

- Why are we doing this?
- Look at real examples
- Understand how OpenAI API works
- Talk about Google Apps Script
- Build something together
- Q&A

These slides and examples will be available at:

https://doreveal.com/blog/v/training-on-google-sheets-open-ai

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Please add your
questions in zoom Q&A

Why are we doing this

A. Intelligence is increasing exponentially.

B. The cost of LLM is reducing 10x/year.

C. Programming will be disrupted, enabling anyone to program (vibe coding)

AI is happening and it's a big opportunity. Lead this transition.

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Why Google Sheets?

- Easy to understand and work with

- Store data, read data, process data (Apps Script)

- Built in privacy and security, yet easy to share

OpenAI + Google sheets

Google sheets are like a database and OpenAI is very flexible. This can allow us to do a lot.

Some Examples

Synthetic Survey Responses

Research Plan Generator

Synthesize Transcripts

What is an API
and how does it work?
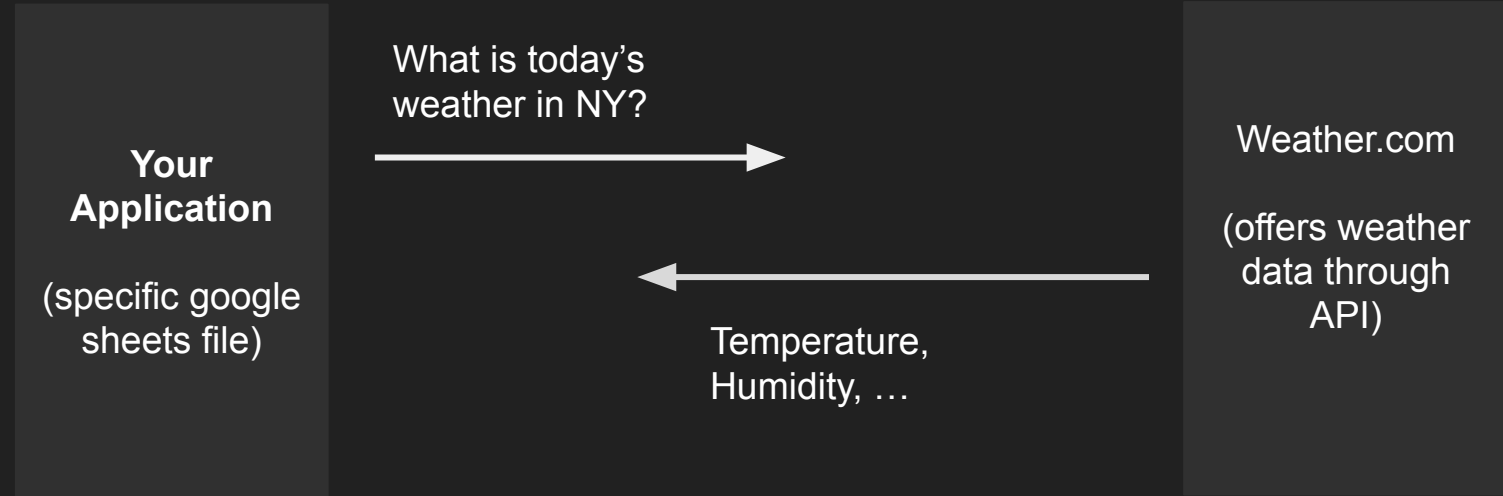
What is an API

Your
Application

(specific google
sheets file)

What is today's
weather in NY?

→

←

Temperature,
Humidity, …

Weather.com

(offers weather
data through
API)

What is an API

OpenAI API

Request

https://api.openai.com/v1/chat/completions

```
…
    {
      role: 'user',
      content: 'What is today's weather in NY?'
    }
  …
```

Response

```
{...
"content": " As of 7:27 PM on Wednesday,
February 19, 2025, in New York City, the
weather is mostly cloudy with a temperature of
27°F (-3°C).
"
… }
```

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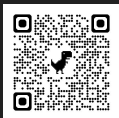
OpenAI API - Structured data

Request

https://api.openai.com/v1/chat/completions
```
…
response_format: { "type": "json_object" },
messages: [
 {
   …
   content: 'What is today's weather in NY?.
    Respond with JSON. Include temperature
    unit, high, low, and humidity.'
 }
…
```

Response
```
{
…
"content": {
         "unit":"F"
         "high":89,
         "low":53,
          "humidity":76,
      }
… }
```

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Core Process

Send Request to OpenAI , same as ChatGPT

Ask for structured data (JSON)

OpenAI reponds (similar to ChatGPT)

Google Sheets Apps Script reads and does what we want

(process and store)

Let's Code.

A technical concept

Variable: It's a way to store some value.

Examples:

- var first_name = "Alok"
- var profile = {"name": "Alok", "company":"Reveal"}
- var years_of_experience = "28"

Google Apps Script UI
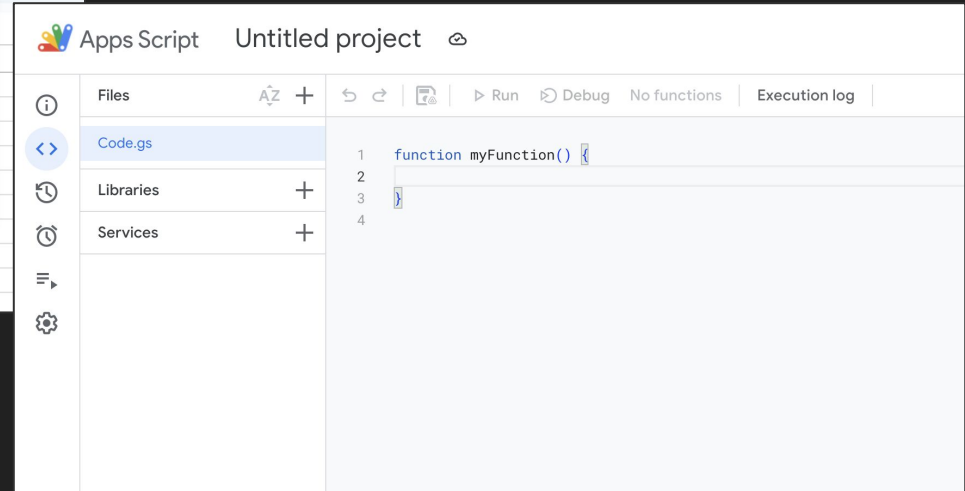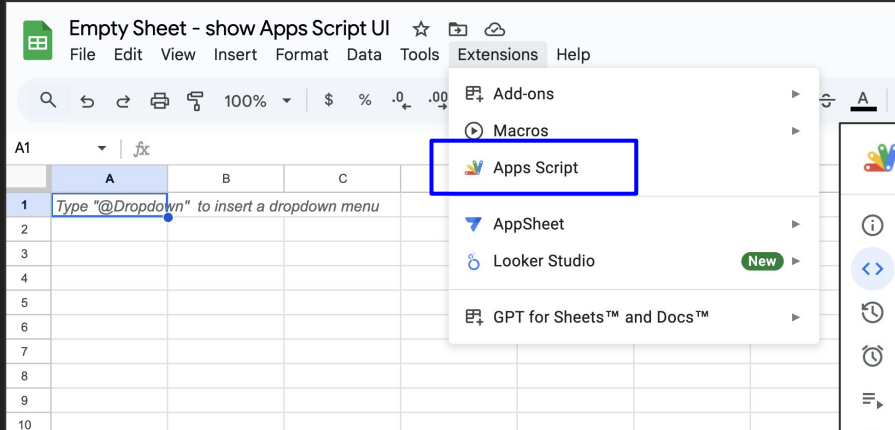
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Sample Google Sheet

Example

Simple function to call OpenAI API.

What we need:

1. API Key - like a password
2. Model we want to use (GPT-4o) (ref: <u>Models supported by OpenAI</u>)

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<u>Sample Google Sheet</u>

Get structured data and store in google sheets

[Vibe Coding in ChatGPT](#)

Prompt:
Write google sheets apps script that pull structured data for average temperatures in Jan for all states of the US and then create a new google sheet to store the values. Use OpenAI api to get this data. Use the following function to call OpenAI API

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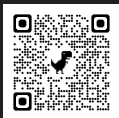
[Sample Google Sheet](#)

Add Menu to trigger the function

[Vibe Coding in ChatGPT](#)

Prompt:
"Let's add a UI menu to trigger this function"

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[Sample Google Sheet](#)

Add logic to ask for the month

Vibe Coding in ChatGPT

Prompt:
"Let's update the logic to:
1. When user clicks Fetch US Avg Temps menu item, ask the use which month do they want to get the weather data for
2. Then use the value to update the OpenAI prompt"
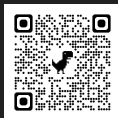
Sample Google Sheet

Error handling

Let's remove a line, Run the code and then copy the error into ChatGPT.

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Let's do some MR stuff

Synthesize qualitative research

- Import Transcript into a sheet
    - Allow user to enter a folder url to import from
- Use OpenAI to summarize the transcripts
    - Add summaries by interview in a "Summary" sheet

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Importing transcripts

[Vibe Coding in ChatGPT](#)

Prompt:
Write google sheets Apps Script that does following

1. Adds a menu items "Import Transcripts"
2. On click, allow user to enter a google drive url
3. The drive url should have a list of txt files. Each txt file has an interview transcript.
3a. Read each file and populate a sheet called "Transcripts".
3b. Each transcript should show as a column.
3c. First row of each column should have the file name and second row should have contents of the transcript file
4. If the "Transcripts" sheets already have any data remove it before importing.

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[Sample Transcripts](#)   [Sample Google Sheet](#)

Summarizing transcripts

Vibe Coding_in ChatGPT

Prompt:
You are writing Apps Script to summarize transcripts in a google sheet. You have a "Transcripts" sheet with following data
1. One or more columns with interview transcripts
2. The first row of each column has the title for the interview
3. The second row has transcript

You want to
1. Use OpenAI API to summarize each transcript
2. Then update a "Summary" sheet with each summary.
2a. If the summary sheet doesn't already exist, create it.
2b. Delete any existing values in the "Summary" sheet, before importing.

Use the following openAI API function

<paste openAI API function>

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Sample Google Sheet

A few things

- JSON v/s Not

If you want structured response from OpenAI, use JSON output.

https://api.openai.com/v1/chat/completions
    model: 'gpt-4o',
    response_format: { "type": "json_object" },
    messages: [
      {
        role: 'user',
        content: 'What is today's weather in NY?.
          **Respond with JSON. Include temperature
          unit, high, low, and humidity.'**
      }
    ],
    temperature: 0.3

A few things

- [OpenAI models](#)
- [API Pricing](#)
  - Pricing is "[token](#)" based.
- Security
  - Careful when running sensitive code
  - Do not share your API Key
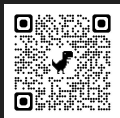 - If the key is compromised, you can [delete and generate a new one](#).

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Suggestions

- Start small
- Tweak the example files from this presentation
- Try Vibe Coding

Tip: Ask AI to explain the code.

Prompt: "Add developer comments against each important line of the following code to help people understand what the code is meant to do. <add code here>"
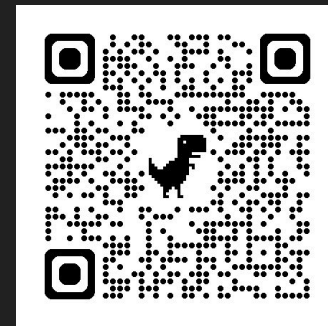
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Questions

Join the free slack community at:

https://doreveal.com/blog/v/training-on-google-sheets-open-ai

(You can also download these slides from the same url.)

What would like to see next?

Please email alokj@doreveal.com

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