



**FlutterFlow**



**OpenAI API**

**Project One**

**AI Assistant for  
Excel Course**






**SchoolBot: Doubt Assistance project is an intelligent assistant built with FlutterFlow and powered by the OpenAI API . Its purpose is to support students in an Excel course by providing clear, structured, step-by-step answers to their questions.**



# 1.

## Context and Overview

The SchoolBot project is an AI-powered educational assistant for an  course. It integrates the  FlutterFlow (low-code UI) with the  OpenAI Text API (using the GPT-5 nano model). This fusion provides students with clear, step-by-step, and context-specific answers to their course questions, demonstrating seamless low-code and generative AI integration



# 2.

## Understanding the OpenAI Platform

Here we briefly introduce the OpenAI platform and explain which model is being used.

The platform offers several categories of models:

- Reasoning models
- Frontier models
- Flagship models
- Open-weight models
- Specialized models
- Realtime + audio models
- ChatGPT models

Specifically for this project

### GPT-5 nano



■ Lightweight

◆ Low cost

● Fast responses

▲ Perfect for educational Q&A



# 3. Creating the Project and API Keys

In the OpenAI dashboard

Create the project named


SchoolBot: Doubt Assistance

A Adriano / SchoolBot: Doubt Assistance

+ Create project

SchoolBot: Doubt Assistance

Generate an API Key

 API keys

★ Don't Share your API Key

NAME	STATUS	SECRET KEY	LAST USED	CREATED BY	PERMISSIONS
Secret key	Active	sk-...H1QA	28 de ago. de 2025	Lazy Cap	All

Store the key securely (Flutterflow → variables)

# 4. Choosing the Right Model for the Application

Analyze different categories of models and justify the selection

- Reasoning models → deep logic, unnecessary for simple Excel questions
- Frontier models → most advanced, too expensive for this use case
- Specialized models → specific functions, not needed
- ChatGPT models → great for conversational applications

**Chosen**

 **GPT-5 nano → ideal balance between price and performance for a student app**





# 5. Creating a Prompt on the OpenAI Dashboard

## Defining the system behavior of SchoolBot, Prompt

Help students answer questions about the use of Microsoft Excel, providing clear, objective, explanations, practical examples, and, if necessary, step-by-step guidance to solve the presented problems. First, evaluate the received question, identify what is being asked, and then prepare a didactic answer. Only after this, present the final solution or answer, always in a simple and objective manner (Do not make a huge answer).

- First, explain the reasoning and the necessary step-by-step procedure to solve the question or problem.
- Then, provide the final answer (such as the formula, procedure, or adequate solution), clearly separating it from the previous explanation.

Expected format example (following the model of first explaining the reasoning and explanation and then the final answer):

Question: "How to sum only the positive values of a column in Excel?"

Answer: "To sum only positive values in a column, you can use the SUMIF function, which allows you to define criteria to select which cells will be summed. The criterion should indicate values greater than zero.

=SUMIF(A:A,">0")"

Output format:

- Always start with the explanation of the reasoning.
- Never present the answer directly before the reasoning.
- Use practical examples, if relevant.
- Short clear answer, with accessible language

Example 2 (following the model of first explaining the reasoning and explanation and then the final answer):

Question: "How To convert negative numbers to positive in Excel?"

Answer: "To convert negative numbers to positive in Excel, you can use the ABS function, which returns the absolute value of a number, that is, always positive.

=ABS(A1)"

If there are compound or multiple questions, explain and answer each one separately.

Never write which part of the answer is the development of the reasoning and which part is the final answer. It must be a single fluid answer.

Remember: Explain the reasoning before presenting the final answer; be clear, didactic, and objective.

Remember again, be objective

IMPORTANT: Explain the reasoning first and only then show the answer! Maintain a consistent format in all answers

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6.

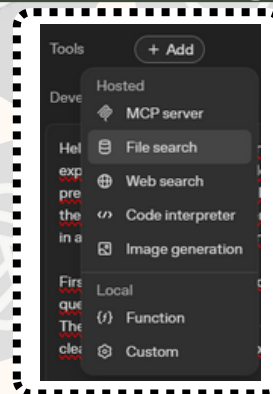
# Passing a Knowledge Base (PDF Upload)



To improve accuracy, we upload an additional file

Excel Course PDF containing:

- curriculum flow
- key concepts



This provides the model a curricular reference, making answers more aligned with the course content.

[View](#)[GitHub](#)

## Excel

### Course Presentation

Our goal is simple: to teach you Excel directly and practically. We don't just cover the basics, we take you to an **Extreme level** to help you stand out and boost your career!

- **Real-World Support:** Our expert instructors answer questions beyond the course. We can even help guide you through tools you are building for your actual job.
- **Full Resources:** You get a complete workbook, extra exercises, and constant updates.
- **Career Focus:** There is a huge demand for Excel experts. We give you the skills to fill that demand.

### PROGRAM: EXCEL

Excel Extreme features **90 hours of content**, a complete workbook, and practice exercises based on real business scenarios. We cover everything from the absolute basics to the most advanced and impressive tools you can build. The entire syllabus is detailed below.

1. Course Proposal and Objectives
2. Syllabus and Workload
3. Workbook and Support

## SECTION 1 – Start Here: The Rules

1. Course Access & Materials
2. Instructor Support & Q&A
3. Guarantee & Certification
4. Study Strategies
5. Support

## SECTION 2 – Join the Community

1. Joining the Community
2. Community Guidelines
3. Career Connection

## SECTION 3 – Speed & Efficiency Hacks

1. Use shortcuts

2. CTRL + ARROW and CTRL + SHIFT + ARROW
3. CTRL + T
4. CTRL + SPACE and SHIFT + SPACE
5. CTRL + SHIFT + L
6. CTRL + PGUP / PGDN / ALT + T
7. CTRL + 1
8. ALT + C + V + V / ALT + C + V + T
9. The ALT Shortcut
10. CTRL + E
11. CTRL + ; and CTRL + SHIFT + ;
12. Learn more every day
13. Complete list of Excel shortcuts (English and Mac included)

## SECTION 4 – Styling Your Data

1. Resizing and Adjusting Layout
2. Concealing Rows and Columns
3. Data Outlining and Grouping
4. Removing Data and Cells
5. Text Styles and Shading
6. Cell Positioning and Outlines
7. Combining Cells for Titles
8. Managing Long Text Overflow

# 7.

## Screen Design in

### FlutterFlow



#### Container 1

Title: **SchoolBot: Doubt Assistance**

#### Subtitle

First Application in Flutterflow with OpenAI API Integration

#### Button

Button  
Ask AI

Text  
**SchoolBot: Doubt Assistance**

Text  
First Application in Flutterflow with OpenAI API Integration

#### Text field

Write the Excel question

Text  
Write the Excel question:

#### Container 2

Label: "The answer from the prompt"

Text  
The answer from the prompt

Answer

Text  
Answer

#### Preview

SchoolBot: Doubt Assistance

First Application in Flutterflow with OpenAI API Integration

Write the Excel question:

Explain to me what is VLOOKUP

Ask AI

The answer from the prompt

Answer



# 9.

## Integrating the Prompt into FlutterFlow (API Call)

API Calls + Add

New API Call

API Call Name

OpenAI SchoolBot Doubt Assistance

Name: "OpenAI - SchoolBot: Doubt Assistance"

Set as POST

Method Type

POST

API URL

https://api.openai.com/v1/responses

Add headers:

- Content-Type: application/json
- Authorization: Bearer {{API\_KEY}}

Headers

Content-Type: application/json

Authorization: Bearer [API\_KEY]

Create variables

- API\_KEY → string \* PROMPT → string (input from user)

Variables

Name	Type	Is List	Default Value
API_KEY	String	False	
PROMPT	String	False	

Define Response Variable:

Response & Test

\$.output[:].content[:].text

Answer = JSON Path

JSON Path

\$.output[:].content[:].text

Name

Answer

Response Preview

[Click "Test API Call" to view preview]

Type

String

In JSON Body, add:

the OpenAI API

<> Code

Insert

Call Definition

```
{
  "input": {
    "role": "user",
    "content": "PROMPT"
  }
}
```

```
5 },
6   "input": [{
7     "role": "user",
8     "content": "PROMPT"
9   }],
```

```
Variables: API_KEY PROMPT
1 {
2   "prompt": {
3     "id": "pmp_6927",
4     "version": "1"
5   },
6   "input": [{
7     "role": "user",
8     "content": "PROMPT"
9   }],
10  "reasoning": {},
11  "tools": [
12    {
13      "type": "file_search",
14      "vector_store_ids": [
15        "vs_69277939549c8191a85147c2eaa4908a"
16      ]
17    }
18  ],
19  "store": true,
20  "include": [
21    "reasoning.encrypted_content",
22    "web_search_call.action.sources"
23  ]
24 }
```

# 9. Applying the API in the App

In the "Send Question" button:

Pass:

API\_KEY

PROMPT

Button  
Ask AI



Add Action → API Call

On Tap  
3 actions

On Success → Show Snackbar "Request Successful"

Action 2  
Show Snack Bar

Value  
Successful Request

On Error → Show Snackbar "Error Detected"

Action 3  
Show Snack Bar

Value  
Error

On the answer container:

- Set the text to show the API variable **Answer**

Text  
Answer

Testing



Making a Excel question

Set from Variable  
Type: String

Variable  
apiResultpws  
Action Output Predefined Path

API Response Options

JSON Body

Available Options

Predefined Path

Predefined Path Name

Answer

Default Variable Value

Answer

SchoolBot: Doubt Assistance

First Application in Flutterflow with OpenAI API Integration

Write the Excel question:

WHAT IS A DINAMIC TABLE

Ask AI

## The answer from the prompt

A dynamic table in Excel typically refers to the Excel Table feature (often called a dynamic, expanding data range). It is not the same as a PivotTable or dynamic array formulas, but it behaves dynamically in useful ways: the table grows automatically when you add new rows or columns, and formulas using the table's structured references adjust automatically. This makes data management easier because you don't have to manually resize ranges, and you can reference columns by name rather than by cellCoord.

### Key Ideas:

- An Excel Table is created from a range of data (with headers) and becomes a named object (e.g., Table1, or a custom name you assign).
- It expands automatically as you add data beneath or beside it, so totals and formulas referencing the table stay correct.
- You can filter, sort, and add a total row directly within the table.
- You reference table data in formulas using structured references like TableName[ColumnName], which is more readable and robust to changes.
- A PivotTable is a separate, dynamic summary tool; it can be refreshed when the underlying data changes.
- Dynamic arrays (e.g., FILTER, SORT, UNIQUE) are a related modern Excel feature that spills results but are separate from the table structure itself.

### Answer:

- How to create a dynamic table (Excel Table):
  - 1) Select your data range, including headers.
  - 2) Go to the Home tab or Insert tab and choose Insert > Table.
  - 3) Confirm "My table has headers."
  - 4) (Optional) Rename the table for clarity: Table Design > Table Name.
  - 5) Start using structured references, e.g., =SUM(Sales[Amount]) to sum a column named Amount in the table named Sales.
  - 6) Add new data in the row immediately below the table; the table automatically expands to include the new row.
  - 7) Use the table's features like Filter, Sort, and Total Row to manage data.

### Example:

- Suppose you have a range with headers Date, Item, Amount and you convert it to a table named Sales. To sum the Amount column, you would use:  
=SUM(Sales[Amount])
- To get only the items where Amount > 100 using a dynamic array approach (outside the table), you could use:  
=FILTER(Sales[Item], Sales[Amount] > 100)

If you meant a PivotTable (a dynamically updating summary table) instead:

- Create one by selecting your data and choosing Insert > PivotTable, place fields in Rows/Columns/Values as needed, and refresh the PivotTable when you update the source data.

# 10. Conclusion

## **SchoolBot: Doubt Assistance, project demonstrates in practice how to:**

- Integrate Flutterflow with the OpenAI API using GPT-5 nano.
- Create a structured prompt that delivers clear, didactic, step-by-step Excel explanations.
- Pass a knowledge base (Excel Course PDF) to enrich model accuracy and contextual learning.
- Build a complete API workflow inside Flutterflow with variables, headers, JSON structure, and dynamic UI binding.
- Display AI responses in a clean interface that supports students during Excel learning.

**This project showcases the potential of combining Flutterflow and OpenAI models to build educational assistants, enabling fast information retrieval, personalized guidance, and interactive learning experiences. It is a practical example of how low-code development + AI can accelerate the creation of smart apps without advanced complexity.**





# Next Project

**Image Interpretation: Visual Helper, project demonstrates in practice how to:**

- Integrates FlutterFlow with OpenAI Vision API (gpt-5nano)
- Builds a custom POST API call named "Image Analyzer"
- Takes image URL + text prompt from user inputs
- Returns AI description/answer about the image in a text box



**Image  
Interpretation**



**FlutterFlow**



**OpenAI API**