Menu Scanner

# Introduction

This application is meant to aid in the extraction of data from a menu image into an excel spreadsheet.

# How it works

This application utilizes Google Gemini API to help extract the menu details from the menu image. Users have to upload a menu image into the application and send a prompt into the application. **Do note that the image quality will affect the accuracy of the extracted text so try to use the highest image quality if possible**. The prompt has to state what you want to extract from the menu and be concise about it. Some examples of the prompt that we have used during the test was –

1. **can you list down the items with their name with their prices, description and add ons/options (if available) and categorize them in excel/table format.**
2. **can u list down the item and categorize them with their english and chinese name (english and chinese in one cell), prices, description in excel format.**
3. **can u list down the items with their name and prices in excel format.**

The list on top are just some samples you can use for prompting the AI. Do note that the output may not always be 100% and some manual cleanup is required. Sample of menu image and output:

|  |
| --- |
|  |
| Here's the information organized in a table format, mimicking an Excel spreadsheet:  Item Name | Price ($) | Description | Add-ons/Options |  -----------------------|------------|--------------------------------------------------------------------------------------------------------------|---------------------------|  Classic Hamburger | 10.9 | Seedless bun served with mayonnaise, lettuce, tomato, beef patty | Double Patty (+ $3) |  Cheeseburger | 12.9 | Seedless bun served with mayonnaise, nacho cheese sauce, lettuce, onion, tomato, beef patty | Double Patty (+ $3) |  BBQ Hamburger | 11.9 | Seedless bun served with mayonnaise, BBQ sauce, lettuce, tomato, beef patty | Double Patty (+ $3) |  \*\*Note:\*\* The "Double Patty" is listed as an add-on for all three hamburger options. If other add-ons were available, they would be added to the table. |
| This is how the application will look like. A screenshot of a menu  Description automatically generated |

Once you are satisfied with the output, you can proceed to “save to excel”.

# Configuration

Some configurations are needed for the usage of Google Gemini API. Such as what type of model you want to use. The sample used above is using “Gemini-1.5-flash” which is a free version. You can visit the link here to browse for the different models, <https://ai.google.dev/gemini-api/docs/models/gemini>.

You also need to generate an API key to use to AI and might require some set up, You can read the steps here, <https://ai.google.dev/gemini-api/docs?gad_source=1&gclid=CjwKCAiAgoq7BhBxEiwAVcW0LJhn5Xxed2lHbXKvutn3XXOsEq7nrgD2M2IYL3LepvBJ4cyqTZK4gxoCag0QAvD_BwE>.

Then browse in the directory for a file called “apikey.txt” and paste your API key inside.