**Project Overview**

This guide explains how to automate the extraction of data from a Google Sheet and save it as CSV and Excel files using a Python script. It includes setting up Google Cloud, APIs, service account, and using gspread.

**1. Prerequisites**

* Python 3.7 or higher
* A Google account
* Access to Google Cloud Console
* A target Google Sheet with data

**2. Google Cloud Project Setup**

1. Go to https://console.cloud.google.com/
2. Create a new project
3. Navigate to APIs & Services > Library
4. Enable:
   * Google Sheets API
   * Google Drive API
   * Gmail API (if needed)

**3. Create a Service Account & JSON Key**

1. Go to IAM & Admin > Service Accounts
2. Create a new account, assign 'Editor' role
3. Go to 'Keys' tab > Add Key > Create JSON
   * Download the .json file
   * Keep it safe and private

**4. Share Google Sheet with Service Account**

1. Open your target Google Sheet
2. Copy `client\_email` from the JSON file
3. Click Share and paste the email

- Give Editor permission

**5. Install Required Python Libraries**

pip install gspread pandas google-auth openpyxl

**6. Python Script**

import gspread

import pandas as pd

from google.oauth2.service\_account import Credentials

# Define OAuth Scopes

SCOPES = [

"https://www.googleapis.com/auth/spreadsheets",

"https://www.googleapis.com/auth/drive"

]

# Path to Service Account JSON file

CREDENTIALS\_FILE = r"C:\New folder\gsheetsmail\ageless-math-455707-h5-cb0ec764b05b.json"

# Authenticate using Service Account

creds = Credentials.from\_service\_account\_file(CREDENTIALS\_ FILE, scopes=SCOPES)

client = gspread.authorize(creds)

# ✅ Use Spreadsheet ID instead of Name

SPREADSHEET\_ID = "1l3uWrpWc8hm3mgXj1ezjcI\_1FF0euoBGv97pa3Vnk1"

spreadsheet = client.open\_by\_key(SPREADSHEET\_ID)

# ✅ Select Sheet 1

sheet1 = spreadsheet.get\_worksheet(0) # First sheet (Index starts at 0)

data1 = sheet1.get\_all\_values()

df1 = pd.DataFrame(data1[1:], columns=data1[0]) # First row as headers

# ✅ Select Sheet 2

sheet2 = spreadsheet.get\_worksheet(1) # Second sheet

data2 = sheet2.get\_all\_values()

df2 = pd.DataFrame(data2[1:], columns=data2[0]) # First row as headers

# Save both sheets separately

df1.to\_csv("sheet1\_output.csv", index=False)

df2.to\_csv("sheet2\_output.csv", index=False)

df1.to\_excel("sheet1\_output.xlsx", index=False, engine="openpyxl")

df2.to\_excel("sheet2\_output.xlsx", index=False, engine="openpyxl")

print("✅ Data extracted and saved for both sheets!")

**7. Optional: Email Automation**

You can use Gmail API or SMTP (with Gmail App Passwords) to send the generated CSV/Excel file via email. Let me know if you need a script for this too.

**Summary**

Setup Google Cloud Project and APIs Created Service Account

Shared Google Sheet with bot Extracted and saved data using Python