

**Be sure to save files for data analytics .CSV project files in a folder and location not attached to OneDrive. (“Downloads”) is my option.**

## **Data Analytics Project Successful Codes and Procedures**

### **Step 1: Setting Up the Environment**

#### **1.1 Uninstalling Python**

- **Method:** Control Panel > Programs > Uninstall a program.

#### **1.2 Installing Python 3.11 (Anaconda)**

- Downloaded and installed the Anaconda version of Python 3.11.

#### **1.3 Disabling Antivirus and Anti-Malware**

- Temporarily disabled antivirus software to prevent installation conflicts.

#### **1.4 File Properties Adjustment**

- **Method:**
  - Right-click on the Python executable, select **Properties**.
  - Unchecked **Read-only**.

#### **1.5 Visual Studio Code and Jupyter Notebook Setup**

- Installed the necessary extensions for Python and Jupyter Notebook.

#### **1.6 Using PowerShell Commands**

**Command:**

powershell

Copy code

```
pip uninstall python
```

```
pip install python==3.11
```

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## Step 2: Google Cloud Platform and YouTube API Setup

### 2.1 Signing into Google Cloud Console

- Accessed Google Cloud Console.

### 2.2 Creating a Google Cloud Project

- **Project Name:** HipHopAnalytics.
- **Method:** Clicked on **Select a Project > New Project**.

### 2.3 Generating a YouTube API Key

- **Method:**
  - Navigated to **API & Services > Credentials**.
  - Clicked on **Create Credentials** and selected **API Key**.

### 2.4 Creating a Second Google Cloud Project

- **Project Name:** HipHopDataExtraction.
- Followed the same steps as above to create the project.

### 2.5 Using Google Colab for Data Extraction

**Code Snippet:**

python

Copy code

```
from google.colab import drive  
drive.mount('/content/drive')
```

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## Step 3: Data Management and Cleaning

### 3.1 Reading and Cleaning the CSV File

#### Code Snippet:

python

Copy code

```
import pandas as pd

# Specify the path to your CSV file
input_file = r"C:\Users\jamar\Downloads\Hip_Hop_Streaming.csv"
output_file =
r"C:\Users\jamar\Downloads\Processed_Hip_Hop_Streaming.csv"

# Read the CSV file
df = pd.read_csv(input_file)

# Initialize a list to store processed rows
processed_data = []

# Loop through each row in the DataFrame
for index, row in df.iterrows():
    processed_row = {
        'Playlist Name': row.get('Playlist Name', ''),
        'Album Playlist': row.get('Album Playlist', ''),
        'Views': row.get('Views', ''),
        'Estimated Revenue': row.get('Estimated Revenue', '')
    }
    processed_data.append(processed_row)

# Create a new DataFrame with the processed data
processed_df = pd.DataFrame(processed_data)

# Save the new DataFrame to a CSV file
processed_df.to_csv(output_file, index=False)
print(f"Processed CSV file created successfully: {output_file}")
```

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## Step 4: VBA Code for Excel Data Management

### 4.1 VBA Code to Clear Contents and Format Data

**VBA Code:**

vba

Copy code

```
Sub ClearAndFormat()  
    Dim ws As Worksheet  
    Set ws = ThisWorkbook.Sheets("Sheet1") ' Change Sheet1 to your  
sheet name  
  
    ' Clear contents  
    ws.Cells.ClearContents  
  
    ' Format cells  
    ws.Range("A1:D1").Font.Bold = True  
    ws.Range("A:D").AutoFit  
End Sub
```

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### 4.2 VBA Code for Separating Revenue

**VBA Code:**

vba

Copy code

```
Sub SeparateRevenue()  
    Dim ws As Worksheet  
    Dim lastRow As Long  
    Set ws = ThisWorkbook.Sheets("Sheet1") ' Change Sheet1 to your  
sheet name  
  
    lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row  
  
    ' Loop through rows to separate revenue  
    Dim i As Long  
    For i = 2 To lastRow  
        ws.Cells(i, 5).Value = Split(ws.Cells(i, 4).Value, "$")(1) '  
Assuming revenue is in column D  
    Next i
```

End Sub

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## Step 5: Running Code and Troubleshooting

### 5.1 Documenting the Successful Code

- **Key Steps:**
  - Code successfully reads the CSV file, processes each row, and saves a new CSV file with selected columns.

### 5.2 Using Notepad and Google Docs for Temporary Storage

- Utilized Notepad for quick notes and Google Docs for documentation of the workflow.

### 5.3 Query Codes in VS Code

Sample Query to Analyze Views and Revenue:

python

Copy code

```
# Group by Album and calculate total views and revenue
revenue_summary = df.groupby('Album Playlist').agg({'Views': 'sum',
'Estimated Revenue': 'sum'}).reset_index()

# Save summary to a new CSV file
revenue_summary.to_csv(r"C:\Users\jamar\Downloads\Revenue_Summary.csv"
, index=False)
```

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### 5.4 File Organization Code Snippet

- **Method:** Manually organized files by copying processed files to the desktop and changing paths to avoid confusion.
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## Conclusion

This document captures all successful code snippets and methods utilized throughout the project. Each section reflects a distinct step that contributed to the overall workflow, ensuring efficient data processing and management. This guide will serve as a valuable reference for future data analytics projects.