Certainly! Here's another example of an analysis script in Python (analysis\_script\_2.py) that goes a step further by performing more complex analysis and generating visualizations. This script assumes you have a CSV file named 'survey\_data.csv' with appropriate columns. Please customize it according to your actual data and analysis goals.

python

Copy code

import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns

# Load survey data from CSV file

survey\_data = pd.read\_csv('survey\_data.csv') # Replace with your file path

# Calculate average age

average\_age = survey\_data['Age'].mean()

print(f"Average Age: {average\_age:.2f} years")

# Generate a box plot of ages

plt.figure(figsize=(8, 6))

sns.boxplot(x=survey\_data['Age'])

plt.xlabel('Age')

plt.title('Age Distribution')

plt.show()

# Calculate percentage preferring natural ingredients

natural\_ingredients\_preference = (survey\_data['Natural\_Ingredients\_Preference'].sum() / len(survey\_data)) \* 100

# Calculate percentage willing to pay for personalized solutions

willingness\_to\_pay = (survey\_data['Willingness\_To\_Pay'].sum() / len(survey\_data)) \* 100

# Print analysis results

print(f"Percentage preferring natural ingredients: {natural\_ingredients\_preference:.2f}%")

print(f"Percentage willing to pay for personalized solutions: {willingness\_to\_pay:.2f}%")

# Correlation analysis

correlation\_matrix = survey\_data.corr()

print("\nCorrelation Matrix:")

print(correlation\_matrix)

# Generate a heatmap of correlations

plt.figure(figsize=(10, 8))

sns.heatmap(correlation\_matrix, annot=True, cmap='coolwarm', center=0)

plt.title('Correlation Heatmap')

plt.show()

This script performs additional analysis such as calculating the average age, generating a box plot of ages, and calculating correlations between variables. It also creates a heatmap to visualize correlations. Make sure to modify the column names, file path, and analysis goals as needed to match your research's data and objectives.

To run the script, save it as a .py file, ensure you have Python and the required libraries (pandas, matplotlib, seaborn) installed, and then execute the script in your terminal or preferred Python environment.