# Importing necessary libraries

import pandas as pd

import matplotlib.pyplot as plt

# Load survey data from CSV file

survey\_data = pd.read\_csv('survey\_data.csv')

# Descriptive statistics

print(survey\_data.describe())

# Data visualization

plt.figure(figsize=(10, 6))

plt.hist(survey\_data['Age'], bins=10, color='blue', alpha=0.7)

plt.xlabel('Age')

plt.ylabel('Frequency')

plt.title('Distribution of Participant Ages')

plt.show()

# Calculate preferences for natural ingredients

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

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

# Calculate willingness to pay for personalized solutions

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

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