

File

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Kernel

Tabs

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New Text Notebook

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New Launcher

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New View for Notebook

New Console for Notebook

Close Tab

Close and Shut Down Notebook...

Close All Tabs

Save Notebook

Save Notebook As...

Save All

Reload Notebook from Disk

Revert Notebook to Checkpoint...

Rename Notebook...

Duplicate Notebook

Save and Export Notebook As

Print...

Untitled2.ipynb

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Notebook

Python (Pyodide)

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```
import matplotlib.pyplot as plt
import pandas as pd

# Load cholesterol test data
df_lab_new = pd.read_csv('data/cholesterol_data.csv')

# Filter for the most common lab tests
cholesterol_df = df_lab_new[df_lab_new['Test_Name'].str.contains('Cholesterol', case=False, na=False)]

# Group by year and calculate the mean cholesterol level
cholesterol_trend = cholesterol_df.groupby('Year')['Numeric_Result'].mean()

# Visualization 1: Line plot showing the trend of cholesterol levels over time
fig, ax = plt.subplots(figsize=(10, 5))
ax.plot(cholesterol_trend.index, cholesterol_trend.values, marker='o', linestyle='-', color='red')
ax.set_xlabel('Year')
ax.set_ylabel('Cholesterol Level (mg/dL)')
ax.set_title('Trend of Cholesterol Test Results Over Time {time_period_new}')
ax.spines['top'].set_visible(False)
ax.spines['right'].set_visible(False)
ax.grid(False)
plt.show()

# Visualization 2: Distribution of Different Lab Tests
fig, ax = plt.subplots(figsize=(12, 6))
ax.barh(test_counts.index[:-1], test_counts.values[:-1], color='skyblue')
ax.set_xlabel('Number of Tests Conducted')
ax.set_title(f'Top 10 Most Common Lab Tests {time_period_new}')
ax.spines['top'].set_visible(False)
ax.spines['right'].set_visible(False)
ax.xaxis.set_label_position('top')
ax.xaxis.tick_top()
ax.grid(False)
plt.show()

# Visualization 3: Histogram of Cholesterol Levels
fig, ax = plt.subplots(figsize=(10, 5))
ax.hist(cholesterol_df['Numeric_Result'], bins=20, color='purple', alpha=0.7, edgecolor='black')
ax.set_xlabel('Cholesterol Level (mg/dL)')
ax.set_ylabel('Frequency')
ax.set_title(f'Distribution of Cholesterol Test Results {time_period_new}')
ax.spines['top'].set_visible(False)
ax.spines['right'].set_visible(False)
ax.grid(False)
plt.show()
```

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Simple

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Python (Pyodide) | Idle

Mode: Command

Ln 57, Col 1

Week5 UPDATED matplotlib code.ipynb

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