```python
import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

import seaborn as sns

import os  # To check file existence


# Check if file exists before loading

file_path = "student-mat.csv"


if os.path.exists(file_path):

    df = pd.read_csv(file_path)

    print("Dataset loaded successfully!")

else:

    print(f"Error: The file '{file_path}' was not found. Please check the file location.")

    # Instead of exiting, create an empty DataFrame if the file is not found

    df = pd.DataFrame()  # This will prevent the NameError


# Now you can safely proceed with the rest of your code

print(df.head())

# Check for missing values and duplicates

df.fillna(df.median(numeric_only=True), inplace=True)  # Fix issue with median()

df.drop_duplicates(inplace=True)


# Basic stats

print("\nAverage final grade (G3):", df['G3'].mean())

print("Students scoring above 15 in G3:", (df['G3'] > 15).sum())

print("Correlation between study time and G3:", df['studytime'].corr(df['G3']))


# Gender-wise average final grade

print("\nAverage G3 per gender:\n", df.groupby('sex')['G3'].mean())
```

```python
# Visualizations

plt.figure(figsize=(8,5))

sns.histplot(df['G3'], bins=10, kde=True)

plt.title("Final Grade Distribution")

plt.xlabel("Final Grade (G3)")

plt.ylabel("Count")

plt.show()


plt.figure(figsize=(8,5))

sns.scatterplot(x=df['studytime'], y=df['G3'])

plt.title("Study Time vs Final Grade")

plt.xlabel("Study Time (hours)")

plt.ylabel("Final Grade (G3)")

plt.show()


plt.figure(figsize=(6,4))

df.groupby('sex')['G3'].mean().plot(kind='bar', color=['blue', 'pink'])

plt.title("Average Final Grade by Gender")

plt.xlabel("Gender")

plt.ylabel("Average Final Grade")

plt.xticks(rotation=0)

plt.show()
```