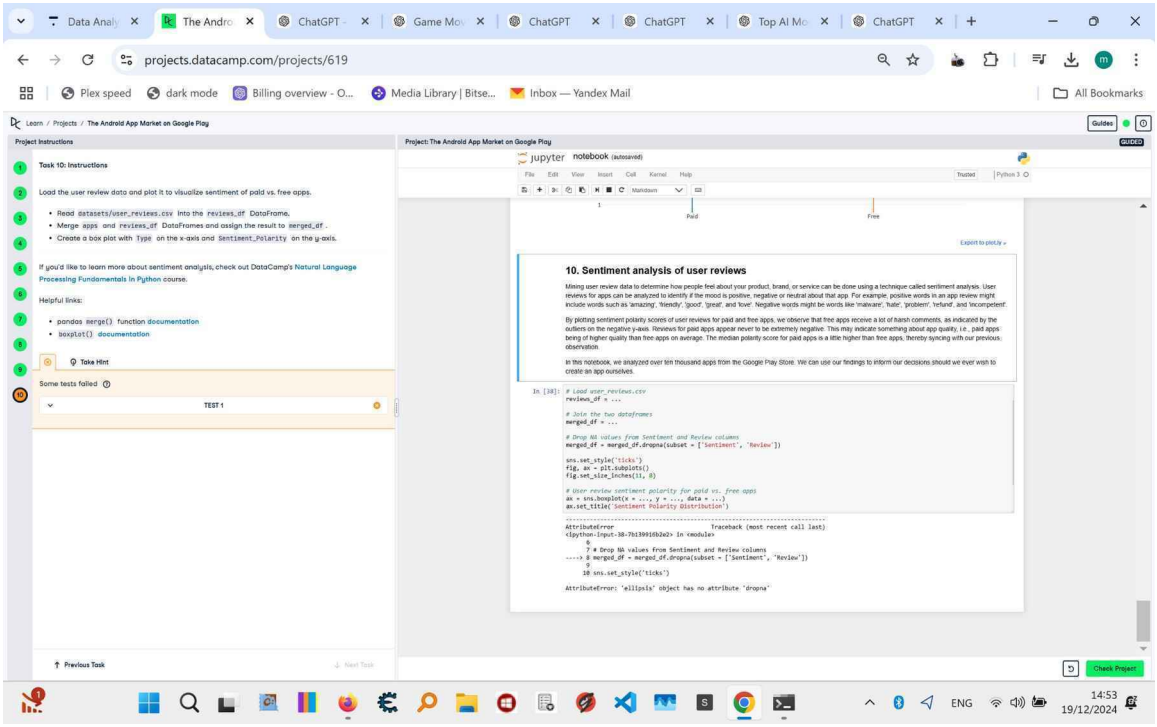
Sentiment Analysis of User Reviews



Question:

Load the user review data and plot it to visualize sentiment of paid vs. free apps:
1. Read 'datasets/user_reviews.csv' into the reviews_df DataFrame.
2. Merge apps and reviews_df DataFrames and assign the result to merged_df.
3. Create a box plot with Type on the x-axis and Sentiment_Polarity on the y-axis.

Code:

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

# Load the user reviews data
reviews_df = pd.read_csv('datasets/user_reviews.csv')

# Merge the DataFrames
merged_df = pd.merge(apps, reviews_df, on='App', how='inner')

# Drop NA values from Sentiment and Review columns
merged_df = merged_df.dropna(subset=['Sentiment', 'Review'])
```

```
# Set seaborn style
sns.set_style('ticks')
plt.figure(figsize=(10, 6))

# Create a box plot
sns.boxplot(x='Type', y='Sentiment_Polarity', data=merged_df)
plt.title('Sentiment Polarity Distribution')
plt.show()
```

Explanation:

1. `pd.read_csv()` is used to load the user review data from a CSV file into a DataFrame called `reviews_df`.
2. `pd.merge()` combines `apps` and `reviews_df` DataFrames on the 'App' column using an inner join, creating `merged_df`.
3. `dropna()` removes rows where 'Sentiment' or 'Review' columns have missing values.
4. `sns.set_style('ticks')` sets the visual style of the plots to 'ticks' for better readability.
5. A new figure is created with `plt.figure(figsize=(10, 6))` to set the size of the plot.
6. `sns.boxplot()` creates a box plot with 'Type' (Paid/Free) on the x-axis and 'Sentiment_Polarity' on the y-axis, using the `merged_df` DataFrame.
7. The title of the plot is set using `plt.title()`.
8. `plt.show()` displays the plot.