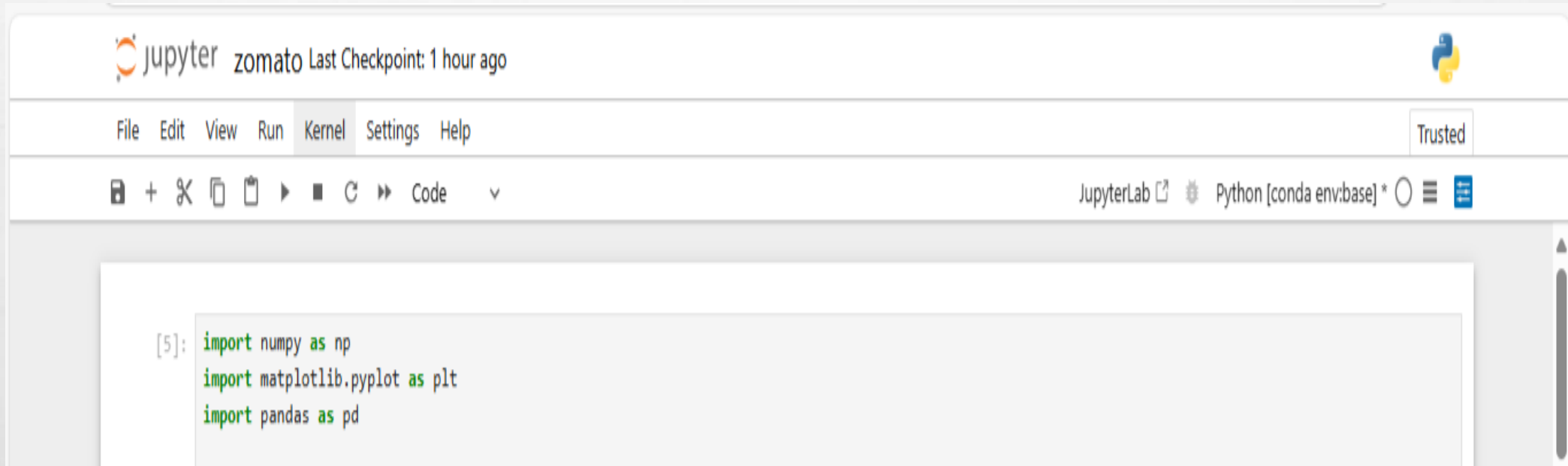


ZOMATO RESTAURANT

DATA ANALYSIS USING PANDAS, NUMPY, MATPLOTLIB



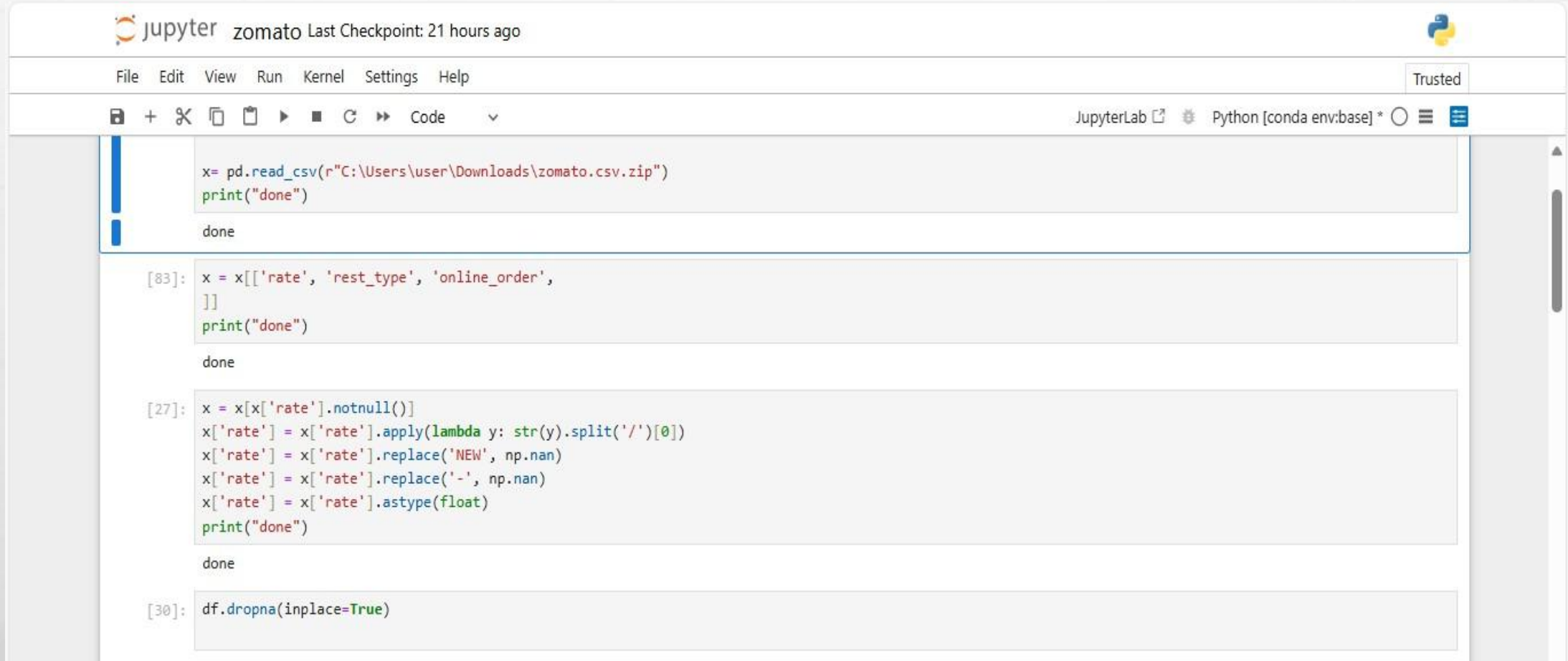
IMPORT PANDAS, MATPLOTLIB, NUMPY

A screenshot of the JupyterLab web interface. The top bar shows the Jupyter logo, the name 'zomato', and 'Last Checkpoint: 1 hour ago'. On the right is the Python logo. Below this is a menu bar with 'File', 'Edit', 'View', 'Run', 'Kernel', 'Settings', and 'Help'. To the right of the menu is a 'Trusted' button. Below the menu is a toolbar with icons for saving, adding, deleting, copying, pasting, running, and other actions. To the right of the toolbar, it says 'JupyterLab', a GitHub icon, and 'Python [conda env:base] *'. The main area contains a code editor with the following text:

```
[5]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

The interface is clean and modern, with a light gray background and a white code editor. The code is written in a monospaced font with syntax highlighting: 'import' is green, 'numpy', 'matplotlib.pyplot', and 'pandas' are blue, and 'as np', 'as plt', and 'as pd' are green.

LOAD AND CLEAN THE DATA



The screenshot displays a JupyterLab environment with the following components:

- Header:** "jupyter zomato Last Checkpoint: 21 hours ago" and a Python logo.
- Menu Bar:** File, Edit, View, Run, Kernel, Settings, Help.
- Toolbar:** Includes icons for saving, opening, and running files, along with a "Code" dropdown.
- Right Panel:** Shows "Trusted" status and "JupyterLab" and "Python [conda env:base]" tabs.
- Code Cells:**
 - Cell 1:**

```
x= pd.read_csv(r"C:\Users\user\Downloads\zomato.csv.zip")  
print("done")
```

 Output: `done`
 - Cell 2:**

```
[83]: x = x[['rate', 'rest_type', 'online_order',  
        ]]  
print("done")
```

 Output: `done`
 - Cell 3:**

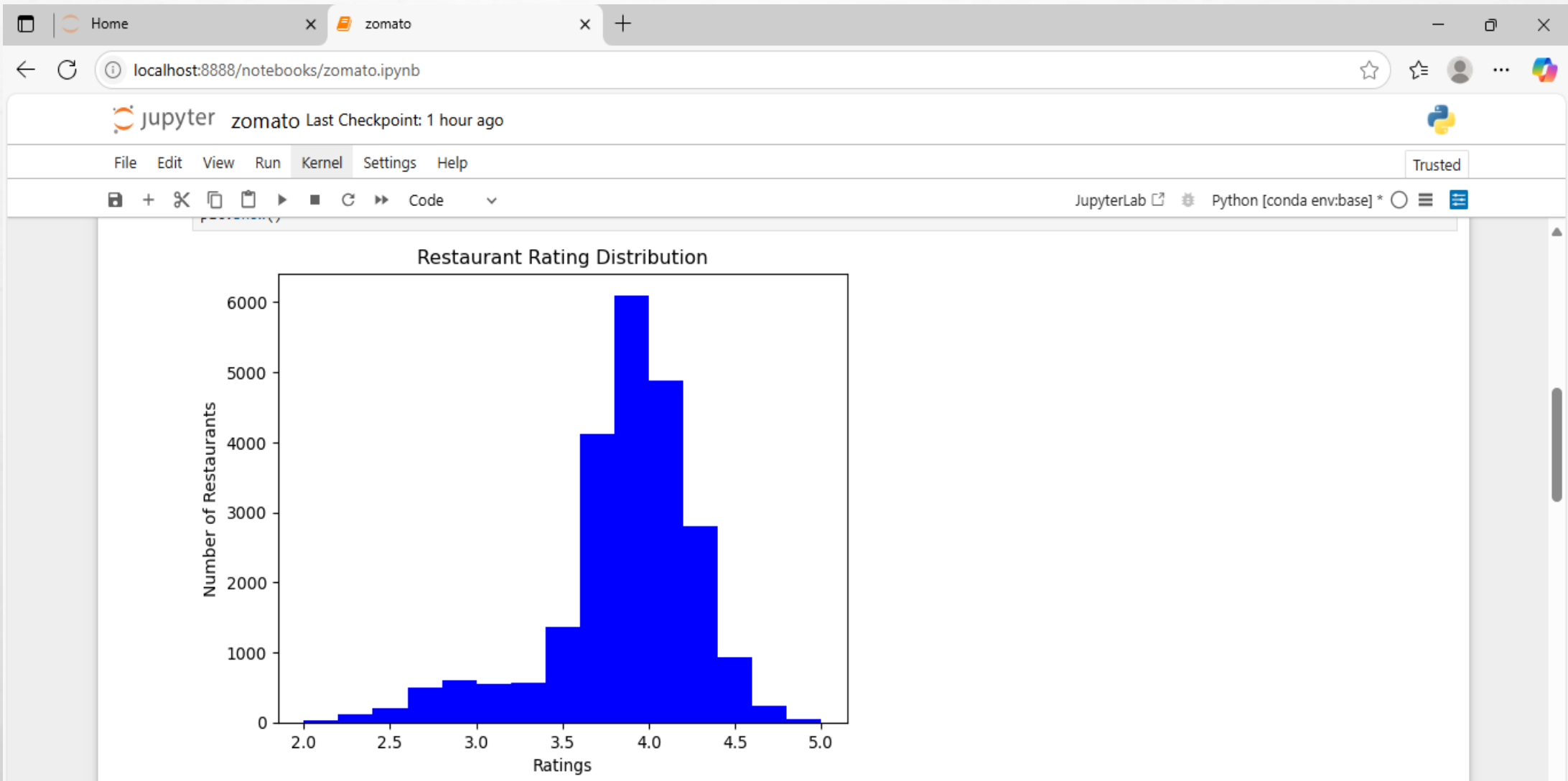
```
[27]: x = x[x['rate'].notnull()]  
x['rate'] = x['rate'].apply(lambda y: str(y).split('/')[0])  
x['rate'] = x['rate'].replace('NEW', np.nan)  
x['rate'] = x['rate'].replace('-', np.nan)  
x['rate'] = x['rate'].astype(float)  
print("done")
```

 Output: `done`
 - Cell 4:**

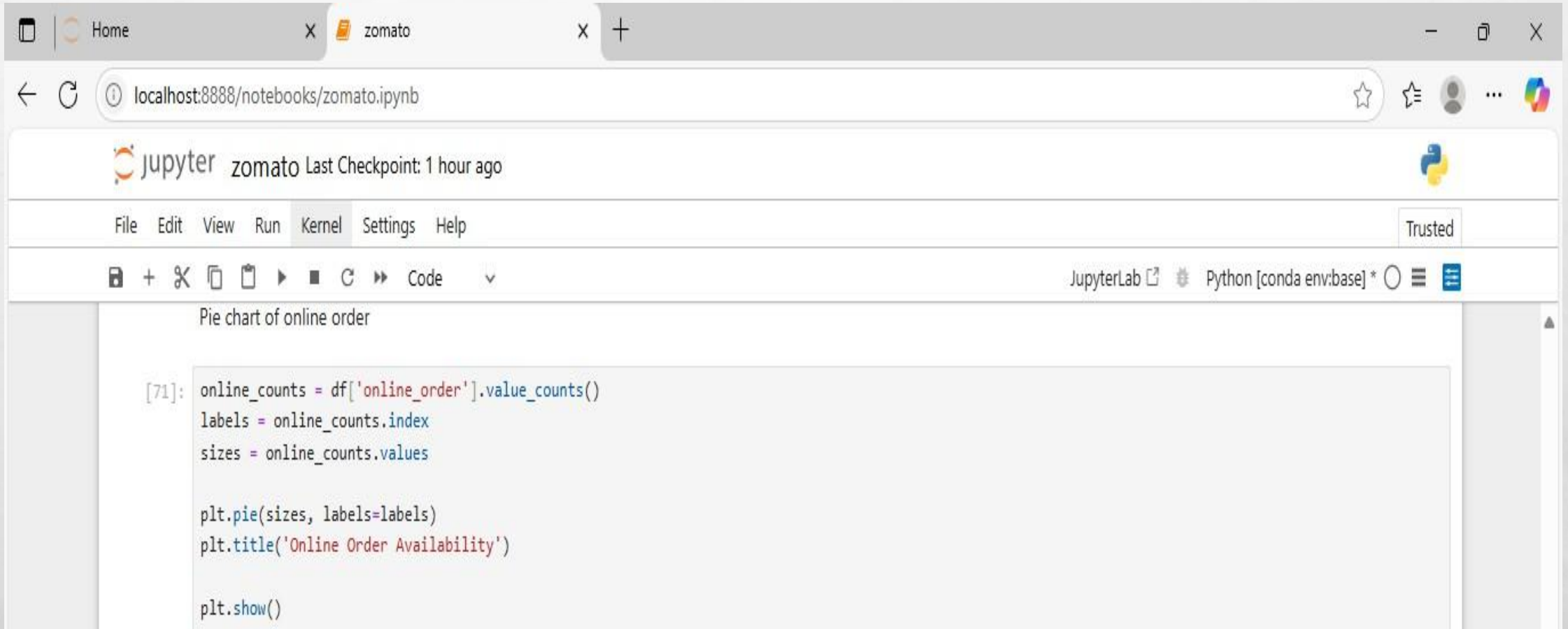
```
[30]: df.dropna(inplace=True)
```

HISTOGRAM CHART - RATING





PIE CHART – ONLINE ORDER AVAILABILITY

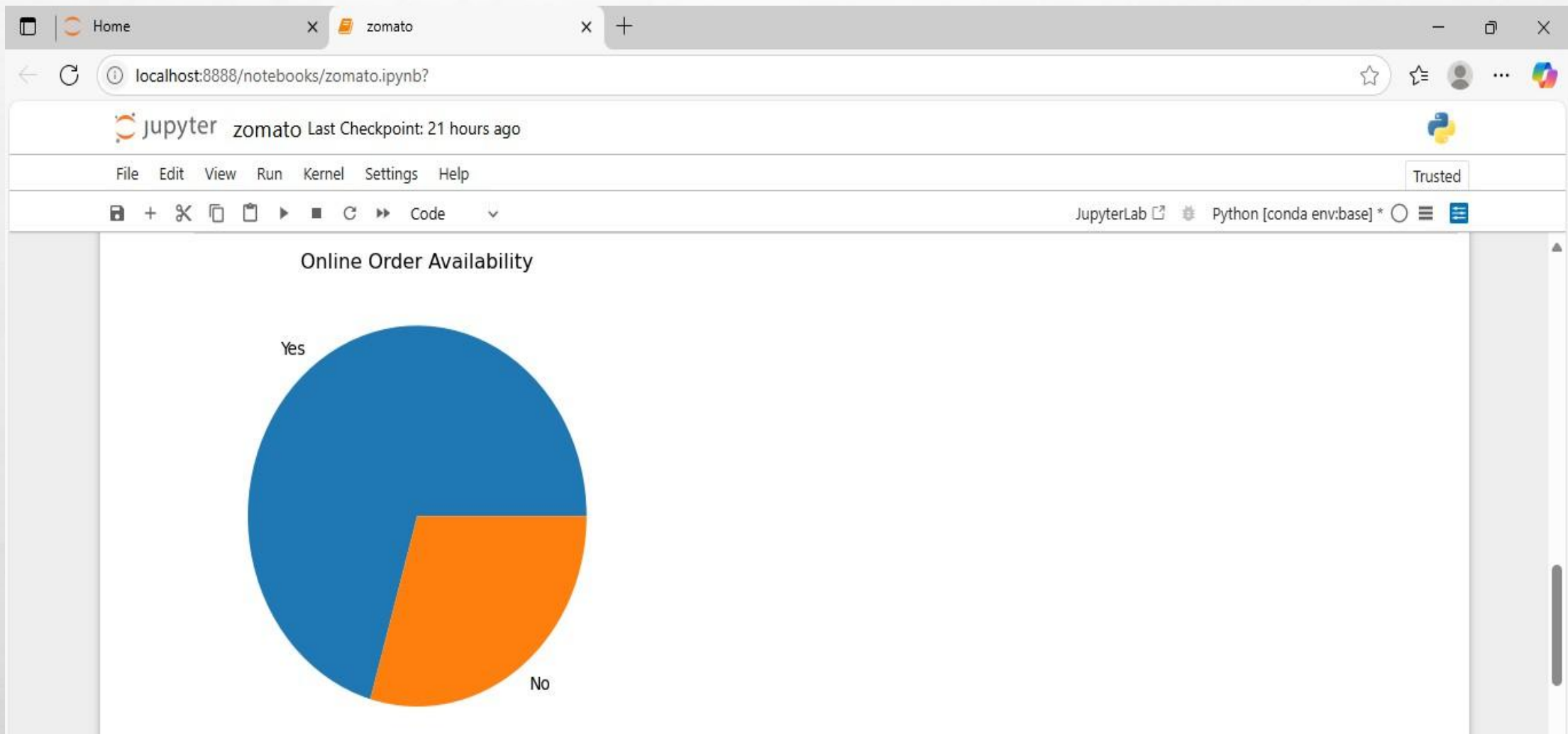


The screenshot displays a JupyterLab web interface in a browser. The address bar shows the URL `localhost:8888/notebooks/zomato.ipynb`. The JupyterLab header includes the logo, the notebook name `zomato`, and the text `Last Checkpoint: 1 hour ago`. A menu bar with `File`, `Edit`, `View`, `Run`, `Kernel`, `Settings`, and `Help` is visible. Below the menu is a toolbar with icons for file operations and execution. The right side of the toolbar shows `Trusted` and the environment `Python [conda env:base]`. The main area contains a code cell with the title `Pie chart of online order`. The code in the cell is as follows:


```
[71]: online_counts = df['online_order'].value_counts()
      labels = online_counts.index
      sizes = online_counts.values

      plt.pie(sizes, labels=labels)
      plt.title('Online Order Availability')

      plt.show()
```



BAR CHART – REST_TYPE



The screenshot shows a JupyterLab web interface in a browser. The address bar indicates the URL is `localhost:8888/notebooks/zomato.ipynb`. The JupyterLab header shows the notebook name "zomato" and a "Last Checkpoint: 1 hour ago" message. The main menu includes "File", "Edit", "View", "Run", "Kernel", "Settings", and "Help". A "Trusted" badge is visible on the right. The toolbar contains icons for saving, opening, and running code. The code cell, labeled "[73]:", contains the following Python code:

```
[73]: rest_types = df['rest_type'].value_counts().head(5)

plt.bar(rest_types.index, rest_types.values, color='green')
plt.title('Top 5 Restaurant Types')
plt.ylabel('Count')
plt.xticks(rotation=45)
plt.grid(True)
plt.show()
```

The code is intended to generate a bar chart showing the top 5 restaurant types and their counts. The bars are colored green, the title is "Top 5 Restaurant Types", the y-axis is labeled "Count", and the x-axis ticks are rotated 45 degrees. A grid is also displayed.

