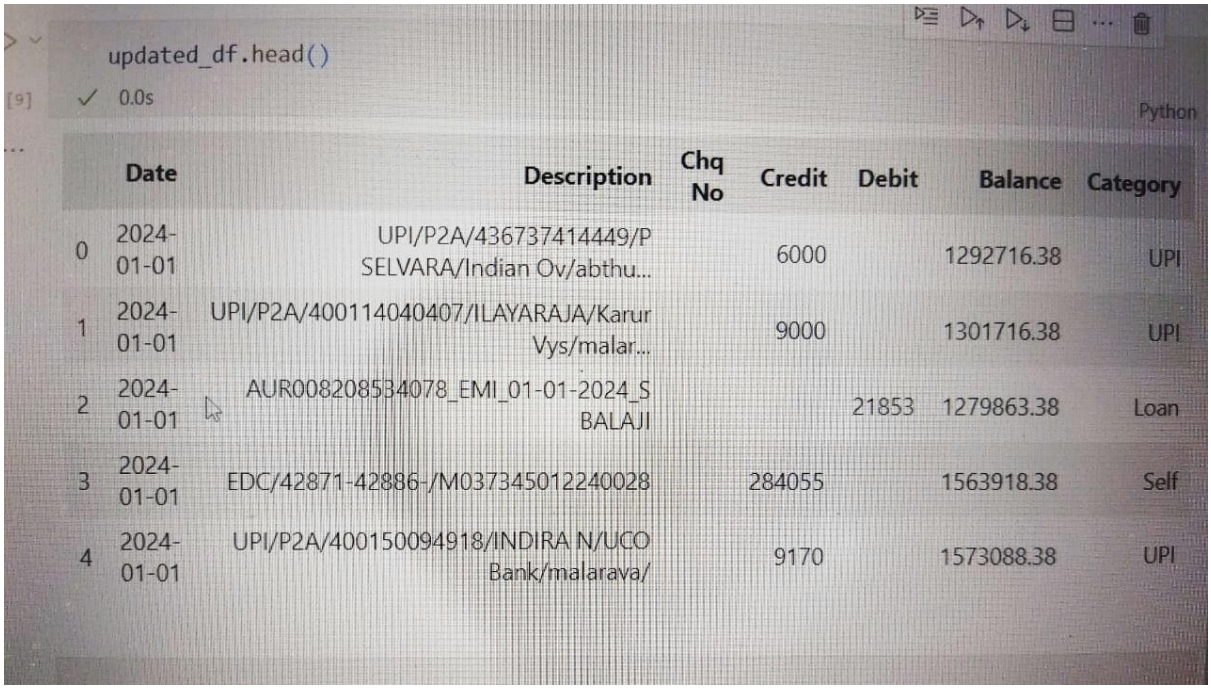
Categorize and Visualize Financial Transactions from Excel File

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

# First step i loaded the excel file
file_path = r'C:\Users\Gowtham\Desktop\credit_card_transcation\Book1.xlsx'  #
Using raw string
df = pd.read_excel(file_path)

# Defining a function to categorize transactions based on the description
def categorize_transaction(description):
    description = str(description).lower()
    if "upi" in description:
        return "UPI"
    elif "imps" in description:
        return "IMPS"
    elif "emi" in description or "loan" in description:
        return "Loan"
    else:
        return "Self"

# Creating a new column 'Category'
df['Category'] = df['Description'].apply(categorize_transaction)

# Save the updated dataframe to a new Excel file
output_file_path =
r'C:\Users\Gowtham\Desktop\credit_card_transcation\Updated_Book1.xlsx'  #
Using raw string
df.to_excel(output_file_path, index=False)

# I used Visualization for better understanding
category_counts = df['Category'].value_counts()

plt.figure(figsize=(10, 6))
category_counts.plot(kind='bar', color=['skyblue', 'lightgreen', 'lightcoral',
'lightgray'])
plt.title('Distribution of Transaction Categories')
plt.xlabel('Category')
plt.ylabel('Number of Transactions')
plt.xticks(rotation=0)
plt.show()
```

Output

To see the updated Excel file I use these code

```
updated_df =
pd.read_excel(r'C:\Users\Gowtham\Desktop\credit_card_transcation\Updated_Book1
.xlsx')
updated_df.head()
```



updated_df.head()

[9] ✓ 0.0s Python

	Date	Description	Chq No	Credit	Debit	Balance	Category
0	2024-01-01	UPI/P2A/436737414449/P SELVARA/Indian Ov/abthu...		6000		1292716.38	UPI
1	2024-01-01	UPI/P2A/400114040407/ILAYARAJA/Karur Vys/malar...		9000		1301716.38	UPI
2	2024-01-01	AUR008208534078_EMI_01-01-2024_S BALAJI			21853	1279863.38	Loan
3	2024-01-01	EDC/42871-42886-/M037345012240028		284055		1563918.38	Self
4	2024-01-01	UPI/P2A/400150094918/INDIRA N/UCO Bank/malarava/		9170		1573088.38	UPI

Visualization of Category