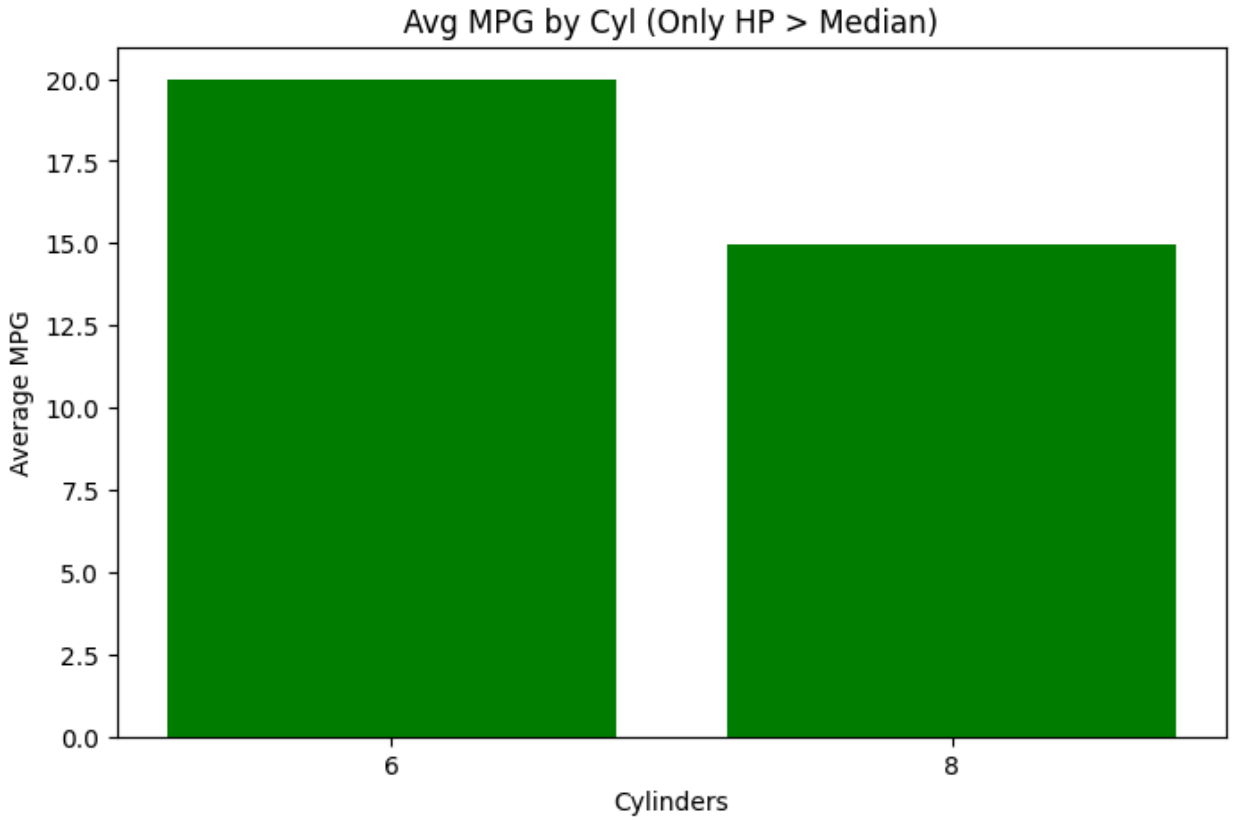
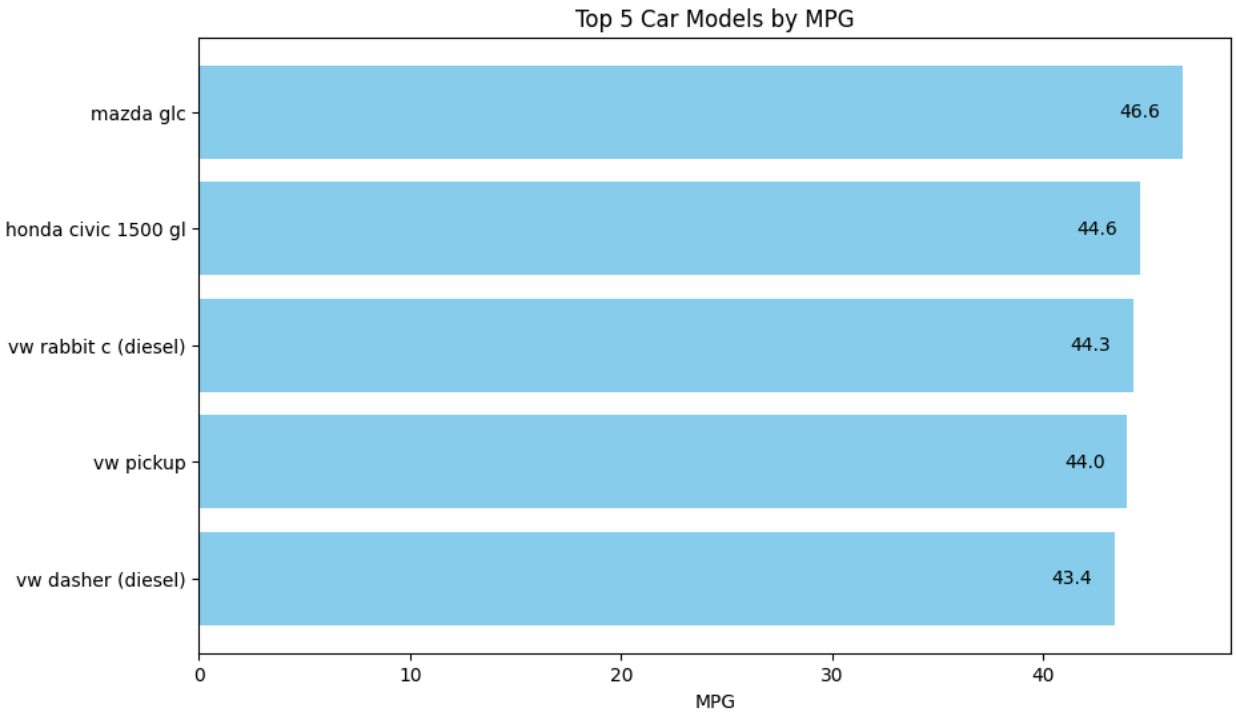
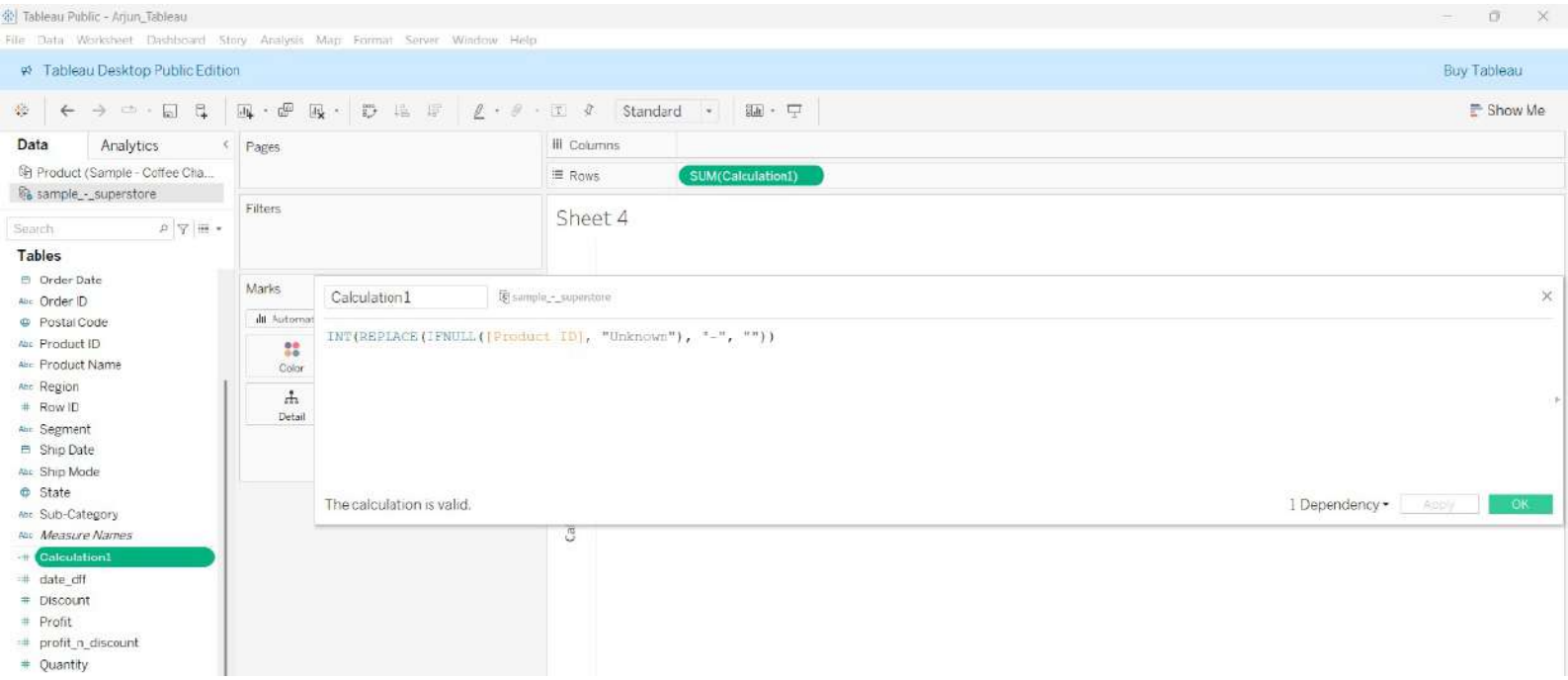
In [2]:
```
#Condition-based Group Barplot on mtcars dataset
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Load dataset
df = sns.load_dataset('mpg').dropna()

# Create required columns
df['cyl'] = df['cylinders']
df['hp'] = df['horsepower']

# Group by 'cyl' and calculate mean mpg and mean hp
grouped = df.groupby('cyl').agg({'mpg': 'mean', 'hp': 'mean'}).reset_index()

# Calculate median of hp
median_hp = grouped['hp'].median()

# Filter where hp > median
filtered = grouped[grouped['hp'] > median_hp].copy()

# Add a 'color' column
filtered['color'] = ['green' if hp > median_hp else 'gray' for hp in filtered[

# Plot using manual color setting
plt.figure(figsize=(8, 5))
bars = plt.bar(x=filtered['cyl'].astype(str), height=filtered['mpg'], color=fi
plt.xlabel("Cylinders")
plt.ylabel("Average MPG")
plt.title("Avg MPG by Cyl (Only HP > Median)")
plt.show()
```



In [3]:
```python
#TOP-N BarPlot with ranking
mtcars = sns.load_dataset('mpg').dropna()
mtcars['model'] = mtcars['name']

# Get top 5 by mpg
top5 = mtcars.sort_values('mpg', ascending=False).head(5)

# Plot horizontal bar chart with labels inside
plt.figure(figsize=(10,6))
bars = plt.barh(top5['model'], top5['mpg'], color='skyblue')
plt.xlabel('MPG')
plt.title('Top 5 Car Models by MPG')

# Add labels inside bars
for bar in bars:
    plt.text(bar.get_width() - 3, bar.get_y() + bar.get_height()/2,
             f'{bar.get_width():.1f}', va='center', color='black')

plt.gca().invert_yaxis()  # Highest mpg on top
plt.show()
```


Top 5 Car Models by MPG
mazda glc
honda civic 1500 gl
vw rabbit c (diesel)
vw pickup
vw dasher (diesel)
46.6
44.6
44.3
44.0
43.4
0
10
20
30
40
MPG

In [ ]: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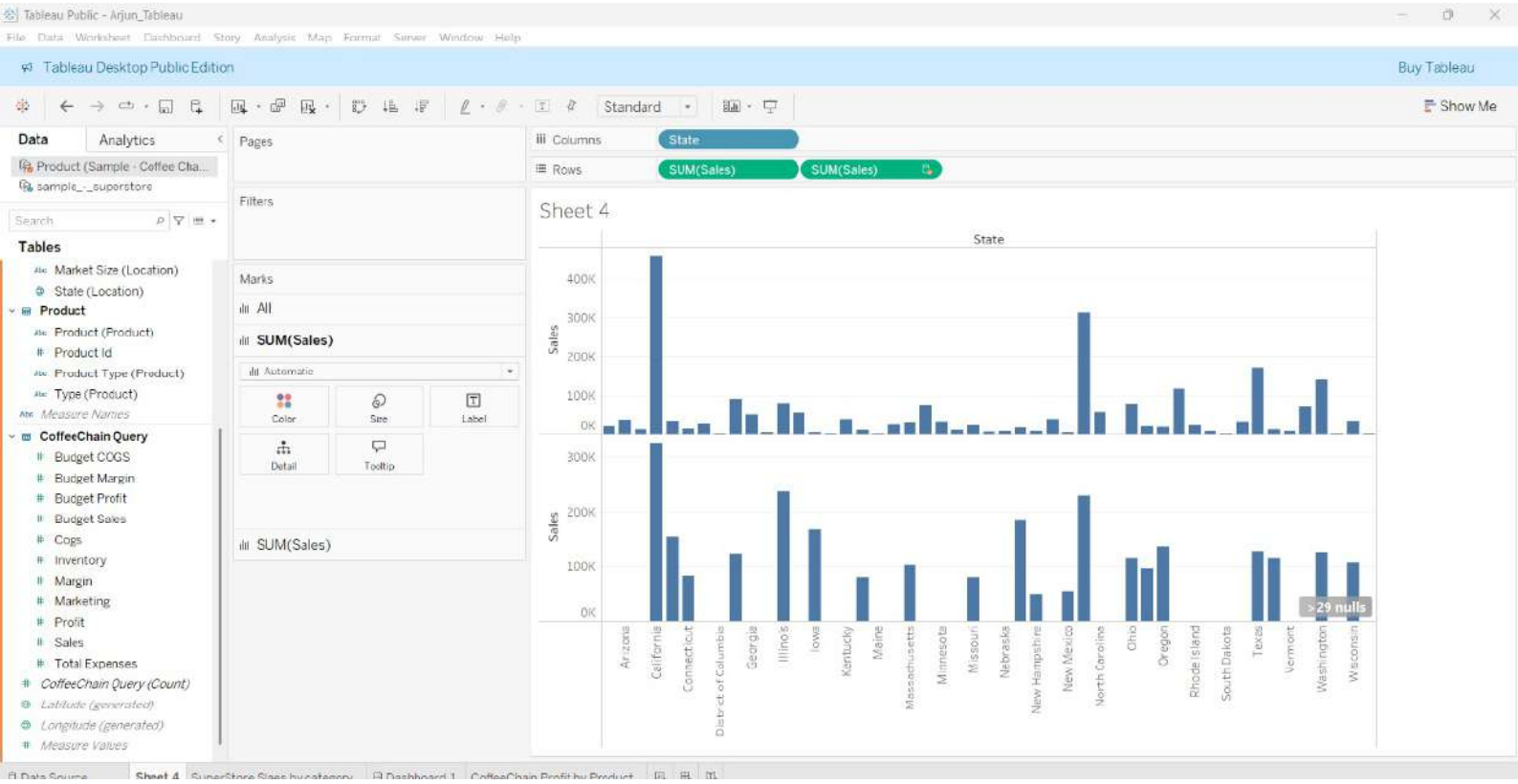
Data
Analytics
Product (Sample - Coffee Cha...
sample_-_superstore
Search
Tables
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Calculation1
date_dff
Discount
Profit
profit_n_discount
Quantity
Pages
Columns
Rows
SUM(Calculation1)
Filters
Sheet 4
Marks
Color
Detail
Calculation1
sample_-_superstore
INT(REPLACE(IFNULL([Product ID], "Unknown"), "-", ""))
The calculation is valid.
1 Dependency
Apply
OK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Data
Analytics
Product (Sample - Coffee Cha...
sample_-_superstore
Search
Tables
Market Size (Location)
State (Location)
Product
Product (Product)
Product Id
Product Type (Product)
Type (Product)
Measure Names
CoffeeChain Query
Budget COGS
Budget Margin
Budget Profit
Budget Sales
Cogs
Inventory
Margin
Marketing
Profit
Sales
Total Expenses
CoffeeChain Query (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Marks
All
SUM(Sales)
Automatic
Color
Size
Label
Detail
Tooltip
SUM(Sales)
Columns
State
Rows
SUM(Sales)
SUM(Sales)
Sheet 4
State
Sales
400K
300K
200K
100K
0K
Sales
300K
200K
100K
0K
>29 nulls
Arizona
California
Connecticut
District of Columbia
Georgia
Illinois
Iowa
Kentucky
Maine
Massachusetts
Minnesota
Missouri
Nebraska
New Hampshire
New Mexico
North Carolina
Ohio
Oregon
Rhode Island
South Dakota
Texas
Vermont
Washington
Wisconsin
Data Source
Sheet 4
SuperStore Sales by category
Dashboard 1
CoffeeChain Profit by Product