

In [1]:

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#Title: Python Programming and Data Analytics
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##### QUESTION 1

import pandas as pd
import matplotlib.pyplot as plt
df=pd.read_csv('vehicle_data.csv')
vehicles_df = df[df['category']=='Cars'].copy()
print(vehicles_df.nlargest(10,"price"))
Trucks_df = df[df['category']=='Trucks & Trailers'].copy()
print(Trucks_df.nlargest(5,"price"))
Buses_df = df[df['category']=='Buses & Microbuses'].copy()
print(Buses_df.nlargest(5,"price"))
df['brand'].value_counts()
df['brand'].value_counts()[:10]
top_10= df['brand'].value_counts()[:10]
plt.figure(figsize=(12,8))
plt.title("Top 10 brands according to number of vehicles", fontsize=14, fontweight='bold')
top_10.plot.bar()
plt.xlabel('Name of brand',fontsize=12, fontweight='bold')
plt.ylabel('Number of Vehicles',fontsize=12, fontweight='bold')
plt.grid()
fig = plt.gcf()
fig.savefig('top-10-brands.png')
plt.show()
```

			title	category	region	\
22			Lexus RX 2016 Black	Cars	Mombasa CBD	
265		New Hyundai Palisade 2021 White		Cars	Mombasa Road	
224		Toyota Hilux 2016 Black		Cars	Mombasa CBD	
156	Toyota Land Cruiser 2010 4.6 V8 ZX Black			Cars	Runda	
249	Toyota Land Cruiser 2014 4.6 V8 ZX Black			Cars	Karen	
0	Toyota Land Cruiser Prado 2016 Black			Cars	Mvita	
53	Toyota Land Cruiser Prado 2015 2.7 VVT-i Brown			Cars	Mvita	
241		BMW X5 2015 White		Cars	Mombasa CBD	
177	Toyota Land Cruiser Prado 2014 Blue			Cars	Nairobi Central	
8		BMW X4 2015 xDrive35i Black		Cars	Mombasa CBD	

	parent_region	condition		attrs	\
22	Mombasa	Foreign Used		No faults	
265	Nairobi	Brand New		No faults	
224	Mombasa	Foreign Used		First registration	
156	Nairobi	Foreign Used		No faults	
249	Nairobi	Foreign Used	Unpainted, Original parts,	No faults	
0	Mombasa	Foreign Used		First registration, No faults	
53	Mombasa	Foreign Used		No faults	
241	Mombasa	Foreign Used		First registration	
177	Nairobi	Foreign Used	First owner, Unpainted, Original parts		
8	Mombasa	Foreign Used		No faults	

	brand	color	model	yom	mileage	body_type	fuel	\
22	Lexus	Black	RX	2016.0	NaN	NaN	NaN	
265	Hyundai	White	Palisade	2021.0	200.0	NaN	NaN	
224	Toyota	Black	Hilux	2016.0	36000.0	NaN	NaN	
156	Toyota	Black	Land Cruiser	2010.0	NaN	SUV	Petrol	
249	Toyota	Black	Land Cruiser	2014.0	30000.0	SUV	Petrol	
0	Toyota	Black	Land Cruiser Prado	2016.0	87000.0	NaN	NaN	
53	Toyota	Brown	Land Cruiser Prado	2015.0	45260.0	SUV	Petrol	

241	BMW	White		X5	2015.0	68000.0	SUV	Petrol
177	Toyota	Blue	Land Cruiser Prado		2014.0	42000.0	NaN	NaN
8	BMW	Black		X4	2015.0	63128.0	NaN	NaN

	drive_train	trans	seat	registered	price
22	NaN	Automatic	NaN	Yes	14500000
265	NaN	Automatic	NaN	Yes	9500000
224	NaN	Automatic	NaN	No	9000000
156	4x4	Automatic	8.0	No	8799999
249	4x4	Automatic	8.0	No	8199999
0	NaN	Automatic	NaN	NaN	6500000
53	All Wheel	Automatic	5.0	No	6500000
241	All Wheel	Automatic	NaN	No	6300000
177	NaN	Automatic	NaN	No	6150000
8	NaN	Automatic	NaN	No	5800000

	title	category	region
195	Mercedes-Benz Actros	Trucks & Trailers	Thome
222	Tata Signa LPK-1618 Tipper 10 Ton	Trucks & Trailers	Nairobi Central Municipality
103	Shacman F2000 Tipper	Trucks & Trailers	Municipality
176	Isuzu Forward 7 Tonne Freezer	Trucks & Trailers	Tudor
62	Isuzu Elf,Year 2015 Manual	Trucks & Trailers	Mombasa CBD

	parent_region	condition	attrs	brand	color
195	Nairobi	Used	Used	Mercedes-Benz	NaN
222	Nairobi	Brand New	Brand New	Tata	NaN
103	Meru	Used	Used	Shacman	NaN
176	Mombasa	Used	Used	Isuzu	NaN
62	Mombasa	Brand New	Brand New	Isuzu	NaN

	model	yom	mileage	body_type	fuel	drive_train	trans
195	NaN	2013.0	NaN	NaN	NaN	NaN	NaN
222	M&HCV Rigid Truck	2021.0	NaN	NaN	Diesel	NaN	NaN
103	NaN	2018.0	NaN	NaN	NaN	NaN	NaN
176	F SERIES	2015.0	NaN	NaN	Diesel	NaN	NaN
62	NaN	2014.0	NaN	NaN	NaN	NaN	NaN

	seat	registered	price
195	NaN	NaN	7500000
222	NaN	NaN	6000000
103	NaN	NaN	5100000
176	NaN	NaN	4300000
62	NaN	NaN	3650000

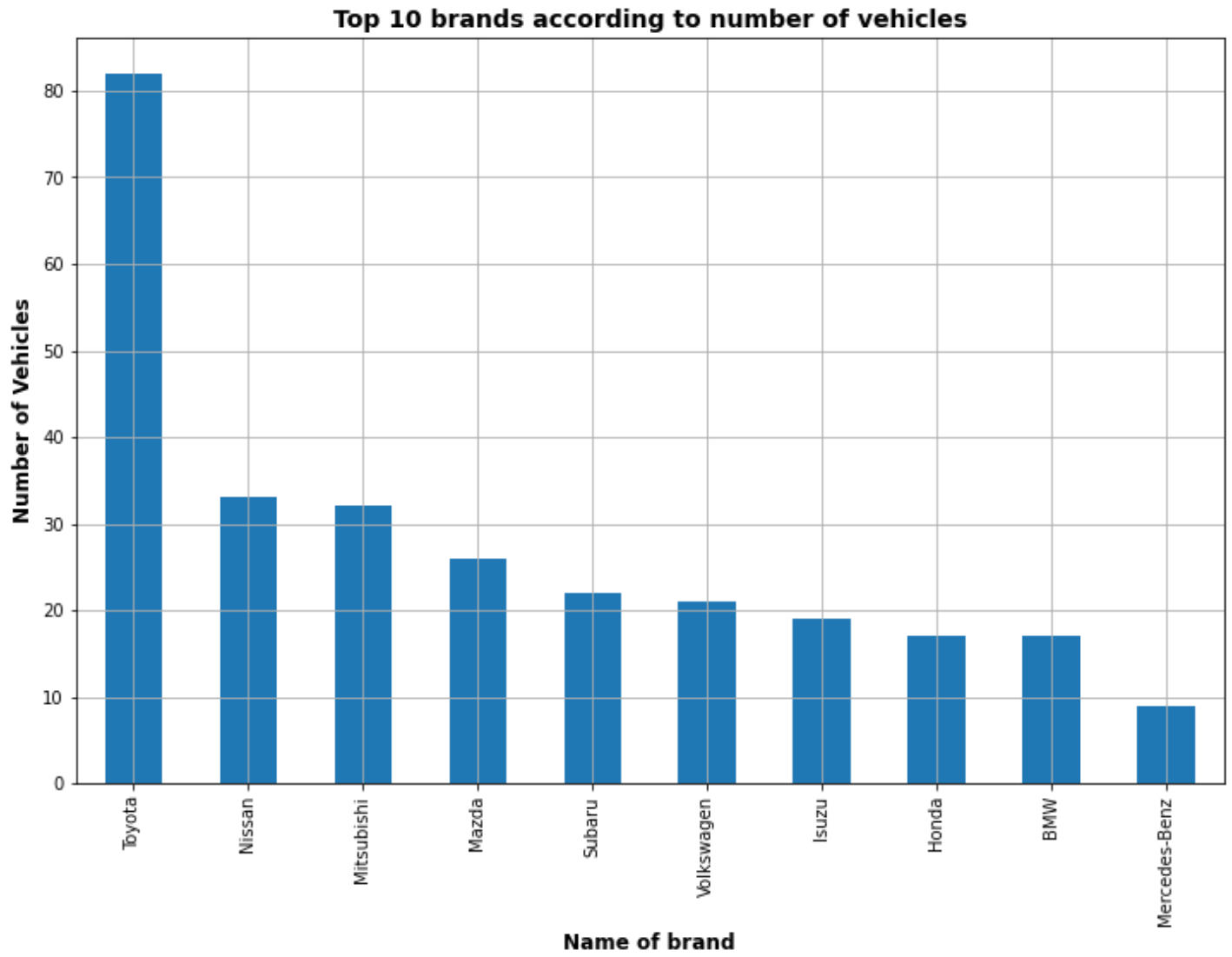
	title	category	region
148	Mazda Bongo	Buses & Microbuses	Ridgeways
221	Selling Buses In Mombasa Town	Buses & Microbuses	Tudor
174	Roller Coaster	Buses & Microbuses	Nairobi Central
211	Toyota Coaster 2014 White	Buses & Microbuses	Mombasa CBD
268	Toyota Hiace 2015 White	Buses & Microbuses	Ziwa la Ngombe

	parent_region	condition	attrs	brand	color
148	Nairobi	Foreign Used	Unpainted, No faults	Mazda	White
221	Mombasa	Foreign Used		Mitsubishi	Mitsubishi
174	Nairobi	Foreign Used		Toyota	Toyota
211	Mombasa	Foreign Used		Toyota	Toyota
268	Nyali	Brand New		Toyota	Toyota

	model	yom	mileage	body_type	fuel	drive_train	trans	seat
148	Bongo	2014.0	127800.0	NaN	NaN	NaN	Automatic	NaN
221	Fuso Rosa	2013.0	101903.0	NaN	NaN	NaN	NaN	NaN
174	Coaster	2012.0	88000.0	NaN	NaN	NaN	NaN	NaN
211	Coaster	2014.0	189000.0	NaN	NaN	NaN	NaN	NaN
268	HiAce	2015.0	85472.0	NaN	NaN	NaN	NaN	NaN

	registered	price
148	NaN	11200000
221	NaN	5200000

174 NaN 4900000
211 NaN 4300000
268 NaN 3800000



In []: