

```
In [1]: import pandas as pd
```

```
In [3]: df=pd.read_csv("used_bikes.csv")
df.head()
```

Out[3]:

	bike_name	price	city	kms_driven	owner	age	power	brand
0	TVS Star City Plus Dual Tone 110cc	35000.0	Ahmedabad	17654.0	First Owner	3.0	110.0	TVS
1	Royal Enfield Classic 350cc	119900.0	Delhi	11000.0	First Owner	4.0	350.0	Royal Enfield
2	Triumph Daytona 675R	600000.0	Delhi	110.0	First Owner	8.0	675.0	Triumph
3	TVS Apache RTR 180cc	65000.0	Bangalore	16329.0	First Owner	4.0	180.0	TVS
4	Yamaha FZ S V 2.0 150cc-Ltd. Edition	80000.0	Bangalore	10000.0	First Owner	3.0	150.0	Yamaha

```
In [4]: df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 149 entries, 0 to 148
Data columns (total 8 columns):
#   Column          Non-Null Count  Dtype
---  ---
0   bike_name       149 non-null    object
1   price           149 non-null    float64
2   city            149 non-null    object
3   kms_driven      149 non-null    float64
4   owner           149 non-null    object
5   age             149 non-null    float64
6   power           149 non-null    float64
7   brand           149 non-null    object
dtypes: float64(4), object(4)
memory usage: 9.4+ KB
```

```
In [5]: df.memory_usage()
```

Out[5]:

Index	128
bike_name	1192
price	1192
city	1192
kms_driven	1192
owner	1192
age	1192
power	1192
brand	1192
dtype:	int64

by converting datatype we can reduce the memory size

```
In [24]: df['price']=df['price'].astype('float32')
df['kms_driven']=df['kms_driven'].astype('float32')
df['age']=df['age'].astype('int8')
df['power']=df['power'].astype('float16')
df['owner']=df['owner'].astype('category')
df['brand']=df['brand'].astype('category')
```

```
In [25]: df.memory_usage()
```

Out[25]:

Index	128
bike_name	1192
price	596
city	1533
kms_driven	596
owner	281
age	149
power	298
brand	825
dtype:	int64

```
In [26]: df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 149 entries, 0 to 148
Data columns (total 8 columns):
#   Column          Non-Null Count  Dtype
---  ---
0   bike_name       149 non-null    object
1   price           149 non-null    float32
2   city            149 non-null    category
3   kms_driven      149 non-null    float32
4   owner           149 non-null    category
5   age             149 non-null    int8
6   power           149 non-null    float16
7   brand           149 non-null    category
dtypes: category(3), float16(1), float32(2), int8(1), object(1)
memory usage: 5.5+ KB
```

before changing datatype memory uses ==> 9.4+ KB

after changing datatype memory uses ==>5.5+ KB

delete the indexing

```
In [27]: df=df.reset_index(drop=True)
df.head()
```

Out[27]:

	bike_name	price	city	kms_driven	owner	age	power	brand
0	TVS Star City Plus Dual Tone 110cc	35008.0	Ahmedabad	17648.0	First Owner	3	110.0	TVS
1	Royal Enfield Classic 350cc	inf	Delhi	11000.0	First Owner	4	350.0	Royal Enfield
2	Triumph Daytona 675R	inf	Delhi	110.0	First Owner	8	675.0	Triumph
3	TVS Apache RTR 180cc	64992.0	Bangalore	16328.0	First Owner	4	180.0	TVS
4	Yamaha FZ S V 2.0 150cc-Ltd. Edition	inf	Bangalore	10000.0	First Owner	3	150.0	Yamaha

dumping file into mysql server

```
In [28]: import csv

import pymysql as pm
mydb=pm.connect(host='localhost',user='root',password='',database='pooja')

with open('used_bikes.csv') as file:
    csvfile=csv.reader(file,delimiter=',')
    all_value=[]
    for i in csvfile:
        values=(i[0],i[1],i[2],i[3],i[4],i[5],i[6],i[7])
        all_value.append(values)

qr="INSERT INTO `bike`(`bike_name`,`price`,`city`,`kms_driven`,`owner`,`age`,`power`,`brand`) VALUES(%,%,%,%,%,%,%,%)"

mycursor=mydb.cursor()
mycursor.executemany(qr,all_value)
mydb.commit()
```

getting data from mysql server

```
In [45]: import pandas as pd
import pymysql as pm
mydb=pm.connect(host='localhost',user='root',password='',database='pooja')
sql_select_query="SELECT * FROM bike"
cursor=mydb.cursor()
cursor.execute(sql_select_query)

#get all records
records=cursor.fetchall()
print(cursor.rowcount)

list1=[]
for row in records:
    list1.append(row)
print(list1)

mydb.commit()
```

150	[('bike_name', 0.0, 'city', 0.0, 'owner', 0, 0.0, 'brand'), ('TVS Star City Plus Dual Tone 1', 35000.0, 'Ahmedabad', 17654.0, 'First Owner', 3, 110.0, 'TVS'), ('Royal Enfield Classic 350cc', 119900.0, 'Delhi', 11000.0, 'First Owner', 4, 350.0, 'Royal Enfi'), ('Triumph Daytona 675R', 600000.0, 'Delhi', 110.0, 'First Owner', 8, 675.0, 'Triumph'), ('TVS Apache RTR 180cc', 65000.0, 'Bangalore', 16329.0, 'First Owner', 4, 180.0, 'TVS'), ('Yamah a FZ S V 2.0 150cc-Ltd. E', 80000.0, 'Bangalore', 10000.0, 'First Owner', 3, 150.0, 'Yamaha'), ('Yamaha FZs 150 cc', 53499.0, 'Delhi', 25000.0, 'First Owner', 6, 150.0, 'Yamaha'), ('Honda CB Hornet 160R ABS DLX', 85000.0, 'Delhi', 8200.0, 'First Owner', 3, 160.0, 'Honda'), ('Hero Splendor Plus Self Alloy ', 45000.0, 'Delhi', 12645.0, 'First Owner', 3, 100.0, 'Hero'), ('Royal Enfield Thunderbird X 35', 145000.0, 'Bangalore', 9190.0, 'First Owner', 3, 350.0, 'Royal Enfi'), ('Royal Enfield Classic Desert S', 88000.0, 'Delhi', 19000.0, 'Second Owner', 7, 500.0, 'Royal Enfi'), ('Yamaha YZF-R15 2.0 150cc', 72000.0, 'Bangalore', 20000.0, 'First Owner', 7, 150.0, 'Yamaha'), ('Yamaha FZ25 250cc', 95000.0, 'Bangalore', 9665.0, 'First Owner', 4, 250.0, 'Yamaha'), ('Bajaj Puls ar NS200', 78000.0, 'Bangalore', 9900.0, 'First Owner', 4, 200.0, 'Bajaj'), ('Bajaj Discover 100M', 29499.0, 'Delhi', 2000.0, 'First Owner', 8, 100.0, 'Bajaj'), ('Bajaj Pulsar NS200', 29900.0, 'Bangalore', 'First Owner', 3, 200.0, 'Bajaj'), ('Bajaj Pulsar RS200 ABS', 120000.0, 'Bangalore', 23000.0, 'First Owner', 3, 200.0, 'Bajaj'), ('Suzuki Gixxer SF 150cc', 48000.0, 'Mumbai', 24725.0, 'First Owner', 5, 150.0, 'Suzuki'), ('Benelli 302R 300CC', 24000.0, 'Mumbai', 15025.0, 'Second Owner', 3, 302.0, 'Benelli'), ('Bajaj Discover 125M', 29900.0, 'Delhi', 20000.0, 'First Owner', 7, 125.0, 'Bajaj'), ('Bajaj Pulsar RS200 ABS', 120000.0, 'Bangalore', 23000.0, 'First Owner', 3, 200.0, 'Bajaj'), ('Suzuki Gixxer SF 150cc', 48000.0, 'Mumbai', 24725.0, 'First Owner', 5, 150.0, 'Suzuki'), ('Hero Splendor iSmart Plus IBS ', 46500.0, 'Delhi', 3500.0, 'First Owner', 2, 110.0, 'Hero'), ('Royal Enfield Classic Chrome S', 121700.0, 'Kalyan', 24520.0, 'First Owner', 5, 500.0, 'Royal Enfi'), ('Yamaha FZ V 2.0 150c c', 45000.0, 'Delhi', 23000.0, 'First Owner', 6, 150.0, 'Yamaha'), ('Bajaj Pulsar NS200', 78000.0, 'Bangalore', 9900.0, 'First Owner', 4, 200.0, 'Bajaj'), ('Hero Super Splendor 125cc', 20000.0, 'Ahmedabad', 29305.0, 'First Owner', 16, 125.0, 'Hero'), ('Honda CBF Stunner 125cc', 20800.0, 'Faridabad', 30500.0, 'Second Owner', 7, 125.0, 'Honda'), ('Bajaj Pulsar 150cc', 50000.0, 'Bangalore', 19000.0, 'First Owner', 8, 150.0, 'Bajaj'), ('Honda X -Blade 160CC ABS', 81200.0, 'Mettur', 9100.0, 'First Owner', 2, 160.0, 'Honda'), ('Bajaj Pulsar NS200', 88000.0, 'Hyderabad', 21914.0, 'First Owner', 3, 200.0, 'Bajaj'), ('Yamaha YZF-R15 2.0 150cc', 80000.0, 'Kaithal', 20000.0, 'Second Owner', 4, 150.0, 'Yamaha'), ('Bajaj Avenger 220cc', 40900.0, 'Gurgaon', 15000.0, 'First Owner', 6, 220.0, 'Bajaj'), ('KTM RC 390cc', 180000.0, 'Pune', 17700.0, 'First Owner', 4, 390.0, 'KTM'), ('Honda CB Unicorn 150cc', 40000.0, 'Noida', 30000.0, 'First Owner', 8, 150.0, 'Honda'), ('KTM Duke 200cc', 70000.0, 'Nashik', 100000.0, 'Second Owner', 8, 200.0, 'KTM'), ('Royal Enfield Classic 350cc', 98800.0, 'Kochi', 39000.0, 'First Owner', 5, 350.0, 'Royal Enfi'), ('Honda CBR 150R 150cc', 65000.0, 'Allahabad', 43000.0, 'First Owner', 6, 150.0, 'Honda'), ('Royal Enfield Thunderbird X 150', 190500.0, 'Samastipur', 4550.0, 'First Owner', 2, 500.0, 'Royal Enfi'), ('KTM RC 200cc ABS', 179000.0, 'Bangalore', 3400.0, 'First Owner', 2, 200.0, 'KTM'), ('Royal Enfield Thunderbird 350c', 70000.0, 'Nadiad', 45000.0, 'First Owner', 8, 350.0, 'Royal Enfi'), ('Bajaj Avenger 220c c', 45000.0, 'Hyderabad', 36100.0, 'First Owner', 6, 220.0, 'Bajaj'), ('Royal Enfield Bullet Electra 3', 78000.0, 'Lucknow', 8500.0, 'First Owner', 13, 350.0, 'Royal Enfi'), ('Bajaj Avenger Street 220 ABS', 110000.0, 'Bangalore', 2550.0, 'First Owner', 2, 220.0, 'Bajaj'), ('Royal Enfield Classic 350cc', 85000.0, 'Delhi', 18000.0, 'First Owner', 6, 350.0, 'Royal Enfi'), ('Bajaj Pulsar NS200', 38000.0, 'Delhi', 35000.0, 'First Owner', 9, 200.0, 'Bajaj'), ('Royal Enfield Thunderbird 350c', 55346.0, 'Noida', 38000.0, 'First Owner', 10, 350.0, 'Royal Enfi'), ('Mahindra Centuro NXT 110cc', 28000.0, 'Jaipur', 45000.0, 'First Owner', 2, 110.0, 'Mahindra'), ('Hero Hunk 150cc', 37000.0, 'Mumbai', 10800.0, 'First Owner', 8, 150.0, 'Hero'), ('Suzuki Gixxer SF Fi 150cc SP A', 97000.0, 'Delhi', 4400.0, 'First Owner', 3, 150.0, 'Suzuki'), ('Yamaha FZ 150cc', 40000.0, 'Karnal', 35700.0, 'First Owner', 8, 150.0, 'Yamaha'), ('Royal Enfieldâ€¦ Bullet 350cc', 90000.0, 'Delhi', 15300.0, 'First Owner', 7, 350.0, 'Royal Enfi'), ('TVS Apache RTR 160cc', 60000.0, 'Mumbai', 30000.0, 'First Owner', 5, 160.0, 'TVS'), ('Honda CB Shine 125cc', 21900.0, 'Gorakhpur', 30000.0, 'Second Owner', 7, 125.0, 'Honda'), ('Bajaj Avenger 220 cc', 40000.0, 'Ahmedabad', 64000.0, 'First Owner', 7, 220.0, 'Bajaj'), ('Benelli TNT 600i ABS', 475000.0, 'Mumbai', 11500.0, 'Second Owner', 3, 600.0, 'Benelli'), ('Honda Dream Yuga 110cc', 34500.0, 'Ahmedabad', 17056.0, 'First Owner', 5, 110.0, 'Honda'), ('Yamaha SZ 150cc', 25000.0, 'Vidisha', 172082.0, 'First Owner', 9, 150.0, 'Yamaha'), ('Suzuki Gixxer 150cc', 30200.0, 'Bangalore', 45000.0, 'First Owner', 7, 150.0, 'Suzuki'), ('Bajaj Avenger Cruise 220', 65000.0, 'Hosur', 3500.0, 'First Owner', 5, 220.0, 'Bajaj'), ('Bajaj Pulsar 150cc', 25000.0, 'Mumbai', 38000.0, 'First Owner', 9, 150.0, 'Bajaj'), ('Kawasaki Z900', 935000.0, 'Bagalkot', 2500.0, 'First Owner', 2, 900.0, 'Kawasaki'), ('Royal Enfield Bullet Electra 3', 107100.0, 'Delhi', 15438.0, 'Second Owner', 3, 350.0, 'Royal Enfi'), ('Bajaj Pulsar 220cc', 80000.0, 'Delhi', 6000.0, 'First Owner', 3, 220.0, 'Bajaj'), ('Royal Enfield Thunderbird 350c', 88000.0, 'Delhi', 19000.0, 'First Owner', 5, 350.0, 'Royal Enfi'), ('KTM Duke e 200cc', 94700.0, 'Baripara', 32700.0, 'First Owner', 4, 200.0, 'KTM'), ('Hero CD Deluxe 100cc', 12200.0, 'Agr a', 46643.0, 'First Owner', 14, 100.0, 'Hero'), ('Royal Enfield Classic 350cc', 106000.0, 'Delhi', 19000.0, 'First Owner', 6, 350.0, 'Royal Enfi'), ('Bajaj Pulsar 150cc', 29500.0, 'Hyderabad', 40700.0, 'First Owner', 12, 220.0, 'Bajaj'), ('Kawasaki Ninja 650cc', 290000.0, 'Dharwad', 11350.0, 'First Owner', 7, 650.0, 'Kawasaki'), ('Royal Enfield Thunderbird 350c', 110000.0, 'Delhi', 1600.0, 'First Owner', 6, 350.0, 'Royal Enfi'), ('Bajaj P latina 150cc', 27000.0, 'Vadodara', 44410.0, 'First Owner', 10, 125.0, 'Bajaj'), ('Royal Enfield Thunderbird 350 c', 125000.0, 'Jaalandhar', 9800.0, 'First Owner', 11, 350.0, 'Royal Enfi'), ('Royal Enfield Thunderbird X 35', 150000.0, 'Bangalore', 15000.0, 'First Owner', 3, 350.0, 'Royal Enfi'), ('Hero Karizma ZMR 223cc', 55786.0, 'Surat', 68000.0, 'Second Owner', 7, 223.0, 'Hero'), ('Bajaj Pulsar 180cc', 45000.0, 'Bangalore', 17757.0, 'First Owner', 8, 180.0, 'Bajaj'), ('Yamaha FZ25 ABS 250cc', 146000.0, 'Chennai', 3900.0, 'First Owner', 2, 250.0, 'Yamaha'), ('Royal Enfield Thunderbird 350c', 115000.0, 'Bangalore', 23700.0, 'First Owner', 4, 350.0, 'Royal Enfi'), ('Bajaj CT 100 100cc', 30000.0, 'Noida', 8250.0, 'First Owner', 3, 100.0, 'Bajaj'), ('Bajaj Pulsar RS200 ABS', 93100.0, 'Mumbai', 10000.0, 'First Owner', 5, 200.0, 'Bajaj'), ('Yamaha YZF-R15 2.0 150cc', 'First Owner', 3, 200.0, 'Bajaj'), ('Bajaj Pulsar 150cc', 25000.0, 'Mumbai', 38000.0, 'First Owner', 9, 150.0, 'Bajaj'), ('Honda CB Shine 125cc', 21900.0, 'Gorakhpur', 30000.0, 'Second Owner', 7, 125.0, 'Honda'), ('KTM Duke 200cc', 130000.0, 'Gandhidham', 17500.0, 'Second Owner', 4, 250.0, 'KT M'), ('Royal Enfield Himalayan 410cc', 118000.0, 'Gurgaon', 19000.0, 'First Owner', 4, 410.0, 'Royal Enfi'), ('Bajaj Pulsar 135LS', 14700.0, 'Delhi', 10000.0, 'First Owner', 11, 135.0, 'Bajaj'), ('Royal Enfield Thunderbi rd 350c', 85000.0, 'Chennai', 54000.0, 'First Owner', 6, 350.0, 'Royal Enfi'), ('Bajaj Pulsar 220F', 40000.0, 'Mumbai', 27000.0, 'First Owner', 7, 220.0, 'Bajaj'), ('Yamaha FZ16 150cc', 'Bangalore', 19000.0, 'First Owner', 6, 150.0, 'Yamaha'), ('Royal Enfield Thunderbird 350c', 71800.0, 'Mumbai', 43500.0, 'First Owner', 7, 350.0, 'Royal Enfi'), ('Royal Enfield Thunderbird 350c', 71800.0, 'Mumbai', 43500.0, 'First Owner', 7, 350.0, 'Royal Enfi'), ('Bajaj Pulsar NS200', 75000.0, 'Bangalore', 11575.0, 'First Owner', 4, 200.0, 'Bajaj'), ('Ducati Scrambler 1100 Special', 1350000.0, 'Mumbai', 190.0, 'First Owner', 1, 1100.0, 'Ducati'), ('Triumph Street Triple 765', 790000.0, 'Mumbai', 19000.0, 'First Owner', 3, 765.0, 'Triumph'), ('Bajaj V15 150cc', 47000.0, 'Bangalore', 8600.0, 'First Owner', 4, 150.0, 'Bajaj'), ('Bajaj Pulsar 150cc', 60000.0, 'Pune', 2000.0, 'First Owner', 2, 150.0, 'Bajaj'), ('Suzuki Gixxer Fi 150cc ABS', 96700.0, 'Vadodara', 5100.0, 'First Owner', 1, 150.0, 'Suzuki'), ('Hero Splendor plus 100cc', 31900.0, 'Delhi', 9000.0, 'First Owner', 5, 100.0, 'Hero'), ('Bajaj Pulsar 150cc', 35000.0, 'Visakhapatnam', 44480.0, 'First Owner', 13, 150.0, 'Bajaj'), ('KTM Duke 390cc', 240000.0, 'Bangalore', 11000.0, 'First Owner', 3, 390.0, 'KTM'), ('Honda CBR 250R', 68000.0, 'Delhi', 16000.0, 'First Owner', 7, 250.0, 'Honda'), ('Bajaj Pulsar RS200', 80000.0, 'Bangalore', 26691.0, 'First Owner', 5, 200.0, 'Bajaj'), ('Royal Enfield Classic 350cc', 135000.0, 'Bangalore', 45000.0, 'First Owner', 5, 350.0, 'Royal Enfi'), ('Bajaj Pulsar 150cc', 11100.0, 'Pune', 12000.0, 'Third Owner', 12, 150.0, 'Bajaj'), ('Benelli TNT 600i', 48000.0, 'Mumbai', 14200.0, 'First Owner', 4, 600.0, 'Benelli'), ('Suzuki Gixxer 150cc SP Rear Di', 65000.0, 'Thirissur', 41000.0, 'First Owner', 3, 150.0, 'Suzuki'), ('Yamaha FZ S V 2.0 150cc', 60000.0, 'Bangalore', 15000.0, 'First Owner', 5, 150.0, 'Yamaha'), ('Honda CBR 150R 150cc', 80000.0, 'Bangalore', 12314.0, 'First Owner', 4, 150.0, 'Honda'), ('Hero Splendor Plus Self Alloy ', 46000.0, 'Delhi', 11760.0, 'First Owner', 3, 100.0, 'Hero'), ('Royal Enfield Classic 500cc', 95000.0, 'Bangalore', 22000.0, 'First Owner', 11, 500.0, 'Royal Enfi'), ('Hyosung GT650R', 400000.0, 'Delhi', 1800.0, 'First Owner', 4, 650.0, 'Hyosung'), ('Bajaj V15 150cc', 55000.0, 'Bangalore', 4400.0, 'First Owner', 4, 150.0, 'Bajaj'), ('Yamaha YZF-R15 S 150cc', 63000.0, 'Delhi', 16000.0, 'First Owner', 5, 150.0, 'Yamaha'), ('Bajaj V15 150cc', 51000.0, 'Faridabad', 9000.0, 'First Owner', 4, 150.0, 'Bajaj'), ('TVS Apache RTR 160 4V Disc', 69900.0, 'Delhi', 8700.0, 'First Owner', 3, 160.0, 'TVS'), ('Bajaj Pulsar R S200 ABS', 125000.0, 'Gorakhpur', 1342.0, 'First Owner', 4, 200.0, 'Bajaj'), ('Benelli TNT 300', 210000.0, 'Kol kata', 21000.0, 'First Owner', 6, 300.0, 'Benelli'), ('Honda CB ShineSP 125cc', 35900.0, 'Delhi', 19000.0, 'First Owner', 5, 125.0, 'Honda'), ('Honda CBR 250R', 67000.0, 'Delhi', 13000.0, 'First Owner', 9, 250.0, 'Honda'), ('Hero Passion Pro 100cc', 29339.0, 'Ernakulam', 12771.0, 'First Owner', 4, 100.0, 'Hero'), ('Hero Splendor Plus 100cc', 19695.0, 'Ernakulam', 51576.0, 'First Owner', 6, 100.0, 'Hero'), ('Harley-Davidson Street 750', 8672.0, 'Ernakulam', 608.0, 'First Owner', 2, 110.0, 'Hero'), ('Honda CBR 150R 150cc', 40000.0, 'Mumbai', 1368.0, 'First Owner', 9, 150.0, 'Honda'), ('Yamaha YZF R6 600cc', 500000.0, 'Bangalore', 285.0, 'First Owner', 5, 600.0, 'Yamaha'), ('Ducati 1299 Superleggera', 800000.0, 'Mumbai', 3.0, 'First Owner', 3, 1299.0, 'Ducati'), ('Royal Enfield Himalayan 410cc', 110000.0, 'Bangalore', 24676.0, 'First Owner', 5, 410.0, 'Royal Enfi'), ('Royal Enfield Classic 350cc', 92500.0, 'Delhi', 11000.0, 'First Owner', 6, 350.0, 'Royal Enfi'), ('Bajaj Pulsar NS 200', 57000.0, 'Bangalore', 28948.0, 'First Owner', 5, 200.0, 'Bajaj'), ('Royal Enfield Electra 350cc', 72500.0, 'Delhi', 10000.0, 'First Owner', 10, 350.0, 'Royal Enfi'), ('KTM Duke 200cc', 68000.0, 'Delhi', 16000.0, 'First Owner', 9, 200.0, 'KTM'), ('TVS Phoenix Disc 125cc', 21500.0, 'Barasat', 10500.0, 'First Owner', 5, 125.0, 'TVS'), ('TVS Apache RTR 160cc', 40000.0, 'Delhi', 20000.0, 'First Owner', 6, 160.0, 'TVS'), ('Royal Enfield Classic 350cc', 91000.0, 'Delhi', 18000.0, 'First Owner', 5, 350.0, 'Royal Enfi'), ('Harley-Davidson Street 750', 300000.0, 'Ghaziabad', 3500.0, 'First Owner', 6, 750.0, 'Harley-Dav'), ('Suzuki Gixxer SF 150cc', 47000.0, 'Jaipur', 70000.0, 'First Owner', 6, 150.0, 'Suzuki'), ('Suzuki Gixxer 150cc', 53000.0, 'Bangalore', 18158.0, 'First Owner', 6, 150.0, 'Suzuki'), ('Suzuki Gixxer 150cc', 51000.0, 'Bangalore', 39140.0, 'First Owner', 5, 150.0, 'Suzuki'), ('Bajaj Pulsar 220F', 48000.0, 'Bangalore', 27776.0, 'First Owner', 8, 220.0, 'Bajaj'), ('Bajaj Pulsar 220cc', 55000.0, 'Bangalore', 32734.0, 'First Owner', 6, 220.0, 'Bajaj'), ('Royal Enfield Himalayan 410cc ', 173300.0, 'Vadodara', 14000.0, 'First Owner', 2, 410.0, 'Royal Enfi'), ('Royal Enfield Bullet Electra 3', 7700.0, 'Delhi', 13000.0, 'First Owner', 8, 350.0, 'Royal Enfi'), ('Bajaj Pulsar NS200', 115000.0, 'Bangalore', 5000.0, 'First Owner', 2, 200.0, 'Bajaj'), ('Bajaj Discover 150cc', 36000.0, 'Hyderabad', 39500.0, 'First Owner', 7, 150.0, 'Bajaj'), ('Bajaj Avenger Street 220', 72000.0, 'Hyderabad', 29500.0, 'First Owner', 4, 220.0, 'Bajaj'), ('Royal Enfield Standard 350cc', 115000.0, 'Hyderabad', 14900.0, 'First Owner', 3, 350.0, 'Royal Enfi'), ('Honda CB Shine 125cc Disc', 65000.0, 'Mumbai', 2000.0, 'First Owner', 3, 125.0, 'Honda'), ('Honda CB Unicorn ABS 150cc', 99000.0, 'Mumbai', 4000.0, 'First Owner', 2, 150.0, 'Honda'), ('Yamaha YZF-R15 2.0 150cc', 68500.0, 'Delhi', 68500.0, 'Second Owner', 7, 150.0, 'Yamaha'), ('Yamaha YZF-R15 V3 150cc', 140000.0, 'Delhi', 2473.0, 'First Owner', 2, 150.0, 'Yamaha')]
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index the columns after data is inserted.

```
In [46]: df1=pd.DataFrame(list1,columns=['bike_name','price','city','kms_driven','owner','age','power','brand'])
df1
```

Out[46]:

	bike_name	price	city	kms_driven	owner	age	power	brand
0	bike_name	0.0	city	0.0	owner	0	0.0	brand
1	TVS Star City Plus Dual Tone 1	35000.0	Ahmedabad	17654.0	First Owner	3	110.0	TVS
2	Royal Enfield Classic 350cc	119900.0	Delhi	11000.0	First Owner	4	350.0	Royal Enfi
3	Triumph Daytona 675R	600000.0	Delhi	110.0	First Owner	8	675.0	Triumph
4	TVS Apache RTR 180cc	65000.0	Bangalore	16329.0	First Owner	4	180.0	TVS
...
145	Royal Enfield Standard 350cc	115000.0	Hyderabad	14900.0	First Owner	3	350.0	Royal Enfi
146	Honda CB Shine 125cc Disc	65000.0	Mumbai	2000.0	First Owner	3	125.0	Honda
147	Honda CB Unicorn ABS 150cc	99000.0	Mumbai	4000.0	First Owner	2	150.0	Honda
148	Yamaha YZF-R15 2.0 150cc	68500.0	Delhi	68500.0	Second Owner	7	150.0	Yamaha
149	Yamaha YZF-R15 V3 150cc	140000.0	Delhi	2473.0	First Owner	2	150.0	Yamaha

150 rows x 8 columns

```
In [ ]:
```