EDS PROJECT Activity

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Batch : G 1

```
import pandas as pd

df=pd.read_csv("Eds Python.csv")

print(df)
```

output:

```
                        name  year  selling_price  km_driven    fuel  \
0                 Maruti 800 AC  2007          60000      70000  Petrol
1          Maruti Wagon R LXI Minor  2007         135000      50000  Petrol
2            Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
3           Datsun RediGO T Option  2017         250000      46000  Petrol
4             Honda Amaze VX i-DTEC  2014         450000     141000  Diesel
5             Maruti Alto LX BSIII  2007         140000     125000  Petrol
6          Hyundai Xcent 1.2 Kappa S  2016         550000      25000  Petrol
7           Tata Indigo Grand Petrol  2014         240000      60000  Petrol
8           Hyundai Creta 1.6 VTVT S  2015         850000      25000  Petrol
9           Maruti Celerio Green VXI  2017         365000      78000     CNG
10          Chevrolet Sail 1.2 Base  2015         260000      35000  Petrol
11          Tata Indigo Grand Petrol  2014         250000     100000  Petrol
12    Toyota Corolla Altis 1.8 VL CVT  2018        1650000      25000  Petrol
13                Maruti 800 AC  2007          60000      70000  Petrol
14         Maruti Wagon R LXI Minor  2007         135000      50000  Petrol
15           Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
16          Datsun RediGO T Option  2017         250000      46000  Petrol
17            Honda Amaze VX i-DTEC  2014         450000     141000  Diesel
18            Maruti Alto LX BSIII  2007         140000     125000  Petrol
19         Hyundai Xcent 1.2 Kappa S  2016         550000      25000  Petrol
20          Tata Indigo Grand Petrol  2014         240000      60000  Petrol
21          Hyundai Creta 1.6 VTVT S  2015         850000      25000  Petrol
```

22	Maruti Celerio Green VXI	2017	365000	78000	CNG
23	Chevrolet Sail 1.2 Base	2015	260000	35000	Petrol
24	Tata Indigo Grand Petrol	2014	250000	100000	Petrol
25	Toyota Corolla Altis 1.8 VL CVT	2018	1650000	25000	Petrol
26	Maruti Ciaz VXi Plus	2015	585000	24000	Petrol
27	Hyundai Venue SX Opt Diesel	2019	1195000	5000	Diesel
28	Chevrolet Enjoy TCDi LTZ 7 Seater	2013	390000	33000	Diesel

	seller_type	transmission	owner
0	Individual	Manual	First Owner
1	Individual	Manual	First Owner
2	Individual	Manual	First Owner
3	Individual	Manual	First Owner
4	Individual	Manual	Second Owner
5	Individual	Manual	First Owner
6	Individual	Manual	First Owner
7	Individual	Manual	Second Owner
8	Individual	Manual	First Owner
9	Individual	Manual	First Owner
10	Individual	Manual	First Owner
11	Individual	Manual	First Owner
12	Dealer	Automatic	First Owner
13	Individual	Manual	First Owner
14	Individual	Manual	First Owner
15	Individual	Manual	First Owner
16	Individual	Manual	First Owner
17	Individual	Manual	Second Owner
18	Individual	Manual	First Owner
19	Individual	Manual	First Owner
20	Individual	Manual	Second Owner
21	Individual	Manual	First Owner
22	Individual	Manual	First Owner
23	Individual	Manual	First Owner
24	Individual	Manual	First Owner
25	Dealer	Automatic	First Owner
26	Dealer	Manual	First Owner
27	Dealer	Manual	First Owner
28	Individual	Manual	Second Owner

1) Which was the best year for sales? How much was earned that year?

Input:

```
import pandas as pd

df=pd.read_csv("Eds Python.csv")
```

```
bcs=df.groupby("year")["selling_price"].sum().idxmax()
bcsal=df.groupby("year")["selling_price"].sum().max()
print("The best year of the Sales is",bcs,"Total sales amount is",bcsal)
```

output:

```
The best year of the Sales is 2018 Total sales amount is 3300000
```

2) Which was the least year for sales? How much was earned that year?

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
bcs=df.groupby("year")["selling_price"].sum().idxmin()
bcsal=df.groupby("year")["selling_price"].sum().min()
print("The least year of the Sales is",bcs,"Total sales amount is",bcsal)
```

Output:

```
The least year of the Sales is 2013 Total sales amount is 390000
```

3) Which product sold the most?

Input :

```
mps=df.groupby("name")["selling_price"].sum().idxmax()
print(mps)
```

Output :Toyota Corolla Altis 1.8 VL CVT

4) Name of Cars sold in 2007.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[df['year']==2007])
```

Output :

```
                 name  year  selling_price  km_driven    fuel  \
0           Maruti 800 AC  2007          60000      70000  Petrol
1   Maruti Wagon R LXI Minor  2007         135000      50000  Petrol
5       Maruti Alto LX BSIII  2007         140000     125000  Petrol
13           Maruti 800 AC  2007          60000      70000  Petrol
14  Maruti Wagon R LXI Minor  2007         135000      50000  Petrol
18      Maruti Alto LX BSIII  2007         140000     125000  Petrol
```

	seller_type	transmission	owner
0	Individual	Manual	First Owner
1	Individual	Manual	First Owner
5	Individual	Manual	First Owner
13	Individual	Manual	First Owner
14	Individual	Manual	First Owner
18	Individual	Manual	First Owner

5) Find the second owner data.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[df['owner']=='Second Owner'])
```

Output :

	name	year	selling_price	km_driven	fuel	\
4	Honda Amaze VX i-DTEC	2014	450000	141000	Diesel	
7	Tata Indigo Grand Petrol	2014	240000	60000	Petrol	
17	Honda Amaze VX i-DTEC	2014	450000	141000	Diesel	
20	Tata Indigo Grand Petrol	2014	240000	60000	Petrol	
28	Chevrolet Enjoy TCDi LTZ 7 Seater	2013	390000	33000	Diesel	

```
  seller_type transmission        owner
4   Individual      Manual  Second Owner
7   Individual      Manual  Second Owner
17  Individual      Manual  Second Owner
20  Individual      Manual  Second Owner
28  Individual      Manual  Second Owner
```

6) Find the car which are sold in 2007 and car is Maruti Wagon R LXI Minor.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[(df['name']=='Maruti Wagon R LXI Minor') & (df['year']==2007)])
```

output :

```
                    name  year  selling_price  km_driven    fuel  \
1   Maruti Wagon R LXI Minor  2007         135000      50000  Petrol
14  Maruti Wagon R LXI Minor  2007         135000      50000  Petrol

  seller_type transmission       owner
1   Individual      Manual  First Owner
```

14 Individual   Manual First Owner

7) Find car of the type of Diesel.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[(df['fuel']=='Diesel')])
```

Output :

```
                          name  year  selling_price  km_driven    fuel  \
2              Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
4             Honda Amaze VX i-DTEC  2014         450000     141000  Diesel
15             Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
17            Honda Amaze VX i-DTEC  2014         450000     141000  Diesel
27       Hyundai Venue SX Opt Diesel  2019        1195000       5000  Diesel
28  Chevrolet Enjoy TCDi LTZ 7 Seater  2013         390000      33000  Diesel

   seller_type transmission         owner
2   Individual       Manual   First Owner
4   Individual       Manual  Second Owner
15  Individual       Manual   First Owner
```

17 Individual Manual Second Owner

27 Dealer Manual First Owner

28 Individual Manual Second Owner

8) Car which driven 100000 km.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[(df['km_driven']==100000)])
```

Output :

```
                name  year  selling_price  km_driven    fuel  \
2      Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
11  Tata Indigo Grand Petrol  2014         250000     100000  Petrol
15     Hyundai Verna 1.6 SX  2012         600000     100000  Diesel
24  Tata Indigo Grand Petrol  2014         250000     100000  Petrol

   seller_type transmission        owner
2   Individual       Manual  First Owner
11  Individual       Manual  First Owner
15  Individual       Manual  First Owner
```

24 Individual Manual First Owner

9) Total sales price of Chevrolet Sail 1.2 Base is.

Input :

```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
r1=df.groupby('name')['selling_price'].get_group('Chevrolet Sail 1.2 Base').max()
print('Total sales Chevrolet Sail 1.2 Base:',r1)
```

Output:

Total sales Chevrolet Sail 1.2 Base: 260000

10) Find the car with transmission type is Automatic.

input :

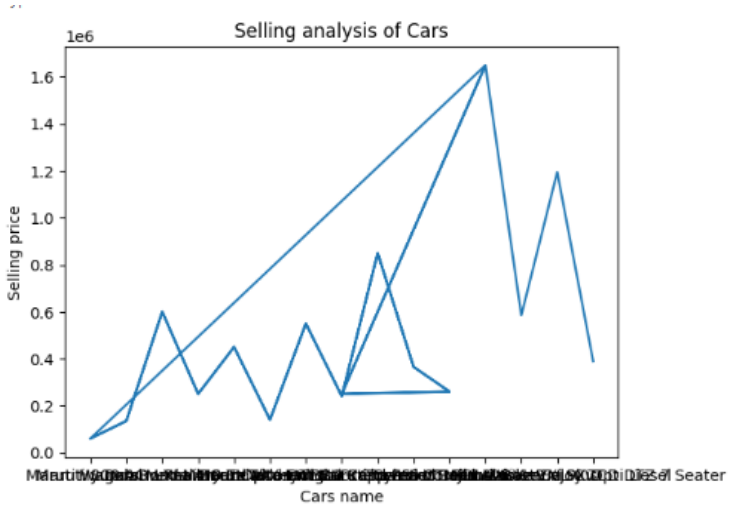
```
import pandas as pd
df=pd.read_csv("Eds Python.csv")
print(df[df['transmission']=='Automatic'])
```

Output :

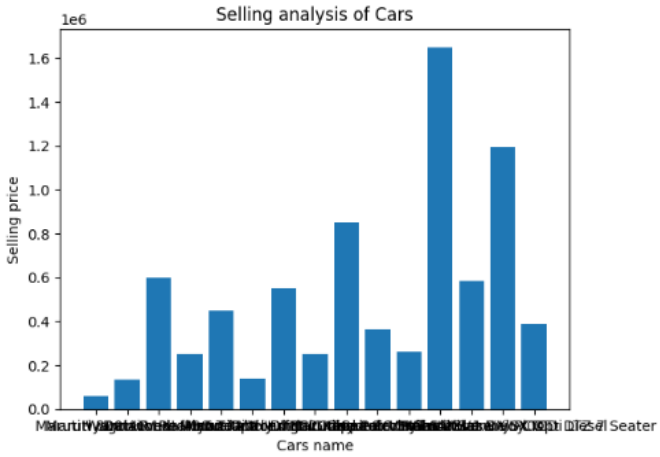
	name	year	selling_price	km_driven	fuel	\
12	Toyota Corolla Altis 1.8 VL CVT	2018	1650000	25000	Petrol	
25	Toyota Corolla Altis 1.8 VL CVT	2018	1650000	25000	Petrol	

	seller_type	transmission	owner
12	Dealer	Automatic	First Owner
25	Dealer	Automatic	First Owner

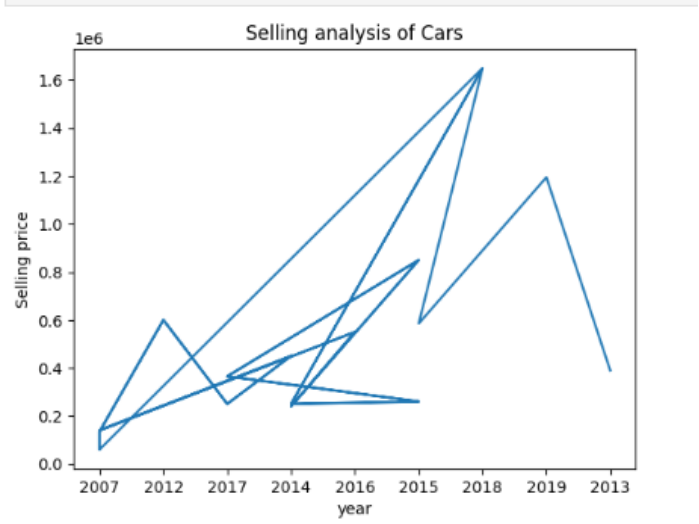
11) Selling analysis of Cars by using plot



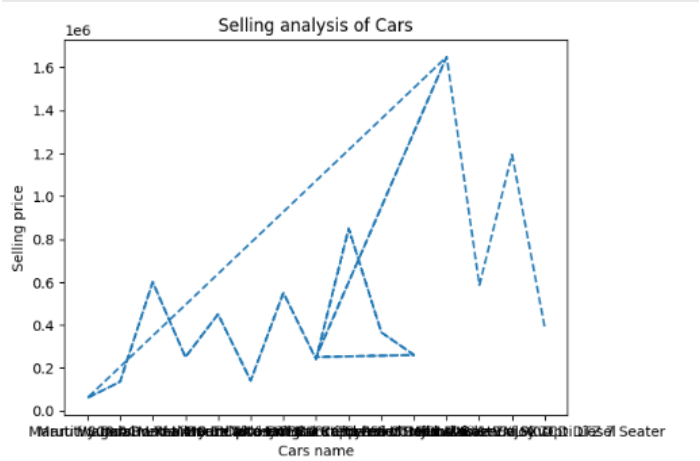
12) Selling analysis of Cars by using bar



13) Selling analysis of Cars by using plot by years



14) Selling analysis of Cars by using plot and landstyle type is dashed



15) Selling analysis of Cars by using plot by years with bar chart