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

```
In [2]:   data=pd.read_csv("newCarsIndia.csv")
          data
```

Out[2]:

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 3 | Tata Punch | Compact SUV | NaN | AMT,Manual | Petrol | ₹ 5.83 - 9.49 L | na |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | na |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | na |
| 254 | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | na |

255 rows × 7 columns

```
In [3]:   data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 255 entries, 0 to 254
Data columns (total 7 columns):
 #   Column        Non-Null Count  Dtype
---  ------        --------------  -----
 0   Car           255 non-null    object
 1   Style         255 non-null    object
 2   Range         244 non-null    object
 3   Transmission  255 non-null    object
 4   VehicleType   255 non-null    object
 5   PriceRange    255 non-null    object
```

```
 6   Rating(outof10)  255 non-null    object
dtypes: object(7)
memory usage: 14.1+ KB
```

In [4]: `data.head()`

Out[4]:

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 3 | Tata Punch | Compact SUV | NaN | AMT,Manual | Petrol | ₹ 5.83 - 9.49 L | na |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |

In [5]: `data.tail()`

Out[5]:

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | na |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | na |
| 254 | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | na |

In [6]: `data.isnull().sum()`

Out[6]:
```
Car                  0
Style                0
Range               11
Transmission         0
VehicleType          0
PriceRange           0
Rating(outof10)      0
dtype: int64
```

In [22]: `data.dropna(axis=0,inplace=True)`

In [8]: `data.isnull().sum()`

Out[8]:
```
Car                  0
Style                0
```

```
Range                  0
Transmission           0
VehicleType            0
PriceRange             0
Rating(outof10)        0
dtype: int64
```

In [9]: `data`

Out[9]:

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |
| 5 | Tata Nexon | Subcompact SUV | 21.5 Km/l | AMT,Automatic,Manual | Petrol,Diesel | ₹ 7.4 - 13.74 L | 7.8 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | na |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | na |
| 254 | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | na |

244 rows × 7 columns

In [43]: `data.dropna()`

Out[43]:

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |
| 5 | Tata Nexon | Subcompact SUV | 21.5 Km/l | AMT,Automatic,Manual | Petrol,Diesel | ₹ 7.4 - 13.74 L | 7.8 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | na |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | na |
| 254 | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | na |

244 rows × 7 columns

In [10]:
```python
data['Car'].values
```

Out[10]:
```
array(['Tata Nexon EV', 'Hyundai Grand i10 Nios',
       'Maruti Suzuki Alto 800', 'MG Hector', 'Tata Nexon',
       'Maruti Suzuki Baleno', 'Hyundai Creta', 'Maruti Suzuki Ertiga',
       'Kia Seltos', 'Maruti Suzuki Wagon R', 'Mahindra Thar',
       'Mahindra Scorpio', 'Maruti Suzuki Vitara Brezza', 'Toyota Glanza',
       'Hyundai Venue', 'Hyundai Elite i20', 'Honda Amaze',
       'Maruti Suzuki S-Presso', 'Tata Tigor', 'Tata Altroz',
       'Tata Safari', 'Hyundai Alcazar', 'Hyundai Verna',
       'Mahindra XUV300', 'Toyota Urban Cruiser', 'Honda City',
       'Tata Tiago', 'Volkswagen Taigun', 'Tata Tigor EV',
       'Nissan Magnite', 'Tata Tiago NRG', 'Skoda Kushaq',
       'Maruti Suzuki Dzire', 'Mahindra Bolero', 'Renault Triber',
       'Renault Kiger', 'Toyota Innova Crysta', 'BMW i8', 'Renault Kwid',
       'Mahindra Bolero Camper', 'Mahindra Bolero Pik-Up', 'Bajaj Qute',
       'Toyota Vellfire', 'Kia Sonet', 'Maruti Suzuki Celerio',
       'Mercedes-Benz G-Class', 'Maruti Suzuki Eeco', 'Tata Nexon EV Max',
       'Mahindra Bolero Neo', 'MG ZS EV', 'Jeep Compass',
       'Mercedes-Benz C-Class', 'Maruti Suzuki XL6', 'Mercedes-AMG G 63',
       'Maruti Suzuki Swift', 'Datsun Go Plus', 'Hyundai Grand i10',
       'Volkswagen Polo', 'Jeep Wrangler Unlimited',
       'Rolls-Royce Phantom', 'Mahindra Marazzo', 'Ford EcoSport',
       'Isuzu D-Max', 'Land Rover Range Rover', 'Hyundai New Santro',
       'Hyundai Kona Electric', 'Jaguar XJ', 'Mercedes-Benz CLA-Class',
       'Kia Carnival', 'Hyundai Aura', 'Renault Duster',
       'Mahindra Bolero Big Pik-Up', 'Maruti Suzuki S-Cross',
       'Honda Jazz', 'Mahindra KUV100', 'Audi R8',
       'Mercedes-AMG GLE Coupe', 'Hyundai Elantra',
```

'Mercedes-AMG C 43 Coupe', 'Lexus ES', 'Maruti Suzuki Ciaz',
'MG Gloster', 'Volkswagen Tiguan', 'Skoda Rapid', 'BMW 3 Series',
'Skoda Octavia', 'Volvo XC40', 'BMW M3', 'Toyota Fortuner',
'Mercedes-Benz A-Class Limousine', 'Tata Harrier',
'Land Rover Discovery Sport', 'Audi Q2', 'Lamborghini Urus',
'Citroen C5 Aircross', 'Lamborghini Huracan', 'BMW X7',
'Jaguar I-Pace', 'Audi Q5', 'Audi A4', 'Jaguar XF',
'Mercedes-AMG C 43', 'Mercedes-Benz GLA-Class',
'Land Rover Range Rover Velar', 'BMW 6 Series Gran Turismo',
'Ford Figo', 'Audi E-Tron GT', 'Land Rover Discovery', 'Lexus LC',
'Mercedes-Benz E-Class All-Terrain', 'Land Rover Defender',
'BMW Z4', 'Mercedes-AMG E 53', 'BMW 3 Series Gran Turismo',
'BMW M2', 'Ferrari GTC4Lusso', 'BMW 3 Series Gran Limousine',
'MINI 5 door', 'BMW 8 Series', 'Audi RS5',
'Mercedes-AMG S 63 Coupe', 'Lexus RC F', 'Ford Figo Aspire',
'Lamborghini Huracan STO', 'Datsun Redi GO', 'Ford Endeavour',
'Volvo XC90', 'Mercedes-Maybach S-Class', 'Lamborghini Aventador',
'Audi S5', 'Audi A8', 'Porsche Macan', 'Maruti Suzuki Ignis',
'Isuzu D-Max V-Cross', 'Audi RS Q8', 'Aston Martin DB11',
'Porsche Boxster', 'BMW M4', 'Mercedes-Benz GLS', 'BMW M5',
'Ford Freestyle', 'BMW 7 Series', 'Mercedes-AMG C 63 S',
'Mercedes-Benz E-Class', 'Audi RS7 Sportback', 'Toyota Camry',
'Hyundai Tucson', 'Aston Martin Vantage', 'Bentley Mulsanne',
'MINI 3 door', 'Mercedes-AMG CLA 45', 'Maruti Suzuki Celerio X',
'Ferrari 488 GTB', 'Land Rover Range Rover Sport',
'Maserati Ghibli', 'Maserati GranTurismo', 'BMW X1',
'Mahindra Alturas G4', 'Rolls-Royce Wraith', 'Honda WR-V',
'Nissan Kicks', 'BYD E6', 'Porsche Cayenne Coupe', 'Skoda Slavia',
'MINI Clubman', 'MINI Cooper Convertible', 'Audi TT',
'Mercedes-Benz CLS', 'Mercedes-Benz EQC', 'Audi A6',
'Ferrari F8 Tributo', 'Datsun Go', 'Volvo S60', 'Mercedes-AMG GT',
'Porsche Cayenne', 'Lexus LX', 'BMW X5', 'MG Hector Plus',
'BMW X4', 'Volkswagen T-Roc', 'Volkswagen Vento', 'Porsche 911',
'BMW iX', 'Mercedes-AMG GLC 43 Coupe', 'Jaguar XE', 'Lexus NX',
'Volkswagen Tiguan AllSpace', 'Rolls-Royce Cullinan',
'Mercedes-Benz GLE-Class', 'Skoda Kodiaq', 'Audi Q8', 'BMW X3',
'Volvo XC60', 'Mercedes-Benz V-Class', 'Maruti Suzuki Baleno RS',
'Lexus LS', 'BMW X6 M', 'Rolls-Royce Ghost', 'BMW 5 Series',
'Skoda Superb', 'Ferrari Roma', 'Mercedes-AMG A 35',
'Mercedes-Benz S-Class', 'Ferrari 488 Spider', 'Volvo S90',
'BMW X6', 'Audi E-Tron', 'BMW 2 Series Gran Coupe',
'Mercedes-AMG GLA 45', 'SsangYong Rexton W', 'BMW X5 M',
'Mercedes-Maybach GLS', 'BMW M8', 'Mercedes-AMG E 63 S',
'Mercedes-Benz GLC', 'Rolls-Royce Dawn', 'Hyundai i20 N Line',
'Maserati Levante', 'Land Rover Range Rover Evoque', 'Lexus RX',
'Jaguar F-Pace', 'Mercedes-AMG SLC 43', 'Nissan GT-R',
'Bentley Continental', 'Bentley Flying Spur',
'Ferrari SF90 Stradale', 'Lamborghini Huracan EVO RWD Spyder',
'Maserati Quattroporte', 'Mercedes-AMG GLS 63',
'Audi E-Tron GT Sportback', 'Bentley Bentayga', 'Aston Martin DBX',
'MINI Countryman', 'Porsche Cayman', 'Audi RS E-Tron GT',
'Jaguar F-Type', 'Audi A5', 'BMW X3 M', 'Jeep Grand Cherokee',
'Porsche Panamera', 'Ferrari 812 Superfast', 'Ferrari California',
'Ferrari Portofino', 'MINI SE'], dtype=object)

In [11]: `data`

Out[11]:

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |
| 5 | Tata Nexon | Subcompact SUV | 21.5 Km/l | AMT,Automatic,Manual | Petrol,Diesel | ₹ 7.4 - 13.74 L | 7.8 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | na |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | na |
| 254 | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | na |

244 rows × 7 columns

```
In [13]: data["Rating(outof10)"]=pd.to_numeric(data["Rating(outof10)"],errors="coerce")
         data["Rating(outof10)"].dtype
```

```
Out[13]: dtype('float64')
```

```
In [14]: data
```

Out[14]:

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 0 | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| 1 | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| 2 | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| 4 | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| **5** | Tata Nexon | Subcompact SUV | 21.5 Km/l | AMT,Automatic,Manual | Petrol,Diesel | ₹ 7.4 - 13.74 L | 7.8 |
| **...** | ... | ... | ... | ... | ... | ... | ... |
| **250** | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| **251** | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | NaN |
| **252** | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |
| **253** | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | NaN |
| **254** | MINI SE | Luxury Hatchback | 270 Km/Full Charge | Automatic | Electric | ₹ 47.2 L | NaN |

244 rows × 7 columns

```
In [15]:   display(data[data['Rating(outof10)']>=6])
```

| | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| **0** | Tata Nexon EV | Compact SUV | 312 Km/Full Charge | Automatic | Electric | ₹ 13.99 - 17.4 L | 8.5 |
| **1** | Hyundai Grand i10 Nios | Compact Hatchback | 20.2 - 26.2 Km/l | AMT,Manual | Petrol,Petrol+CNG,Diesel | ₹ 5.3 - 8.51 L | 8.5 |
| **2** | Maruti Suzuki Alto 800 | Entry Hatchback | 24.7 - 31.39 Km/l | Manual | Petrol,Petrol+CNG | ₹ 3.39 - 5.03 L | 6.6 |
| **4** | MG Hector | SUV | 13.96 - 17.4 Km/l | Automatic,Manual | Petrol,Diesel,Hybrid | ₹ 13.5 - 19.36 L | 7.5 |
| **5** | Tata Nexon | Subcompact SUV | 21.5 Km/l | AMT,Automatic,Manual | Petrol,Diesel | ₹ 7.4 - 13.74 L | 7.8 |
| **...** | ... | ... | ... | ... | ... | ... | ... |
| **246** | Jaguar F-Type | Sports Car | 10.85 - 15.3 Km/l | Automatic | Petrol | ₹ 95.12 L - 2.42 Cr | 7.8 |
| **247** | Audi A5 | Premium Sports Sedan | 17.2 - 19.2 Km/l | Automatic | Diesel | ₹ 55.4 - 69.24 L | 7.8 |
| **249** | Jeep Grand Cherokee | Luxury SUV | 8.6 - 12.8 Km/l | Automatic | Diesel,Petrol | ₹ 75.15 L - 1.07 Cr | 7.3 |

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |

180 rows × 7 columns

In [16]:
```python
display(data[data.Style=='Premium Sports Coupe'])
```

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 123 | Ferrari GTC4Lusso | Premium Sports Coupe | 8.8 - 9 Km/l | Automatic | Petrol | ₹ 4.2 - 5.2 Cr | 7.9 |
| 127 | Audi RS5 | Premium Sports Coupe | 11.1 Km/l | Automatic | Petrol | ₹ 1.09 Cr | 7.1 |
| 143 | Aston Martin DB11 | Premium Sports Coupe | 12 Km/l | Automatic | Petrol | ₹ 4.27 Cr | NaN |
| 145 | BMW M4 | Premium Sports Coupe | 10.8 Km/l | Automatic | Petrol | ₹ 1.44 Cr | 8.4 |
| 156 | Aston Martin Vantage | Premium Sports Coupe | 7 Km/l | Automatic | Petrol | ₹ 2.95 Cr | NaN |
| 163 | Maserati Ghibli | Premium Sports Coupe | 16.9 - 16.94 Km/l | Automatic | Hybrid,Petrol,Diesel | ₹ 1.15 - 1.93 Cr | 7.7 |
| 164 | Maserati GranTurismo | Premium Sports Coupe | 14.3 Km/l | Automatic | Petrol | ₹ 2.25 - 2.51 Cr | 8.0 |
| 171 | Porsche Cayenne Coupe | Premium Sports Coupe | 8.84 - 10.75 Km/l | Automatic | Petrol,Hybrid | ₹ 1.32 - 1.98 Cr | 8.1 |
| 187 | BMW X4 | Premium Sports Coupe | 12.82 - 14.24 Km/l | Automatic | Petrol,Diesel | ₹ 71.9 - 73.9 L | 8.7 |
| 214 | Ferrari 488 Spider | Premium Sports Coupe | 11.4 Km/l | Automatic | Petrol | ₹ 4.34 Cr | 7.9 |
| 232 | Mercedes-AMG SLC 43 | Premium Sports Coupe | 12.8 Km/l | Automatic | Petrol | ₹ 77.5 - 87.48 L | 7.1 |
| 233 | Nissan GT-R | Premium Sports Coupe | 9 Km/l | Automatic | Petrol | ₹ 2.12 Cr | 7.5 |
| 234 | Bentley Continental | Premium Sports Coupe | 8.5 - 10.6 Km/l | Automatic | Petrol | ₹ 3.3 - 4.4 Cr | 8.1 |
| 251 | Ferrari 812 Superfast | Premium Sports Coupe | 6.7 Km/l | Automatic | Petrol | ₹ 5.2 Cr | NaN |
| 253 | Ferrari Portofino | Premium Sports Coupe | 10 Km/l | Automatic | Petrol | ₹ 3.5 Cr | NaN |

In [33]:
```python
display(data[data.VehicleType=='Petrol'])
```

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|

|  | Car | Style | Range | Transmission | VehicleType | PriceRange | Rating(outof10) |
|---|---|---|---|---|---|---|---|
| 6 | Maruti Suzuki Baleno | Premium Hatchback | 22.35 - 22.94 Km/l | Automatic,Manual | Petrol | ₹ 6.49 - 9.71 L | 8.2 |
| 13 | Maruti Suzuki Vitara Brezza | Subcompact SUV | 17.03 - 18.76 Km/l | Automatic,Manual | Petrol | ₹ 7.84 - 11.33 L | 7.9 |
| 14 | Toyota Glanza | Premium Hatchback | 22.35 - 22.94 Km/l | AMT,Manual | Petrol | ₹ 6.39 - 9.69 L | 7.7 |
| 39 | Renault Triber | Compact MPV | 20 Km/l | AMT,Manual | Petrol | ₹ 5.69 - 8.25 L | 8.4 |
| 43 | Renault Kwid | Entry Hatchback | 22 - 25 Km/l | AMT,Manual | Petrol | ₹ 4.25 - 5.71 L | 8.0 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 243 | MINI Countryman | Compact SUV/Crossover | 14.41 Km/l | Automatic | Petrol | ₹ 39.5 - 43.4 L | 7.0 |
| 244 | Porsche Cayman | Sports Car | 14.4 Km/l | Automatic | Petrol | ₹ 86 L - 1.63 Cr | 7.8 |
| 246 | Jaguar F-Type | Sports Car | 10.85 - 15.3 Km/l | Automatic | Petrol | ₹ 95.12 L - 2.42 Cr | 7.8 |
| 250 | Porsche Panamera | Premium Sports Sedan | 8 Km/l | Automatic | Petrol | ₹ 1.45 - 2.43 Cr | 6.6 |
| 252 | Ferrari California | Sports Car | 9.5 Km/l | Automatic | Petrol | ₹ 3.8 Cr | 7.9 |

91 rows × 7 columns

In [34]:
```python
import matplotlib.pyplot as  plt
from matplotlib import style
from matplotlib import figure
style.use('fivethirtyeight')
```
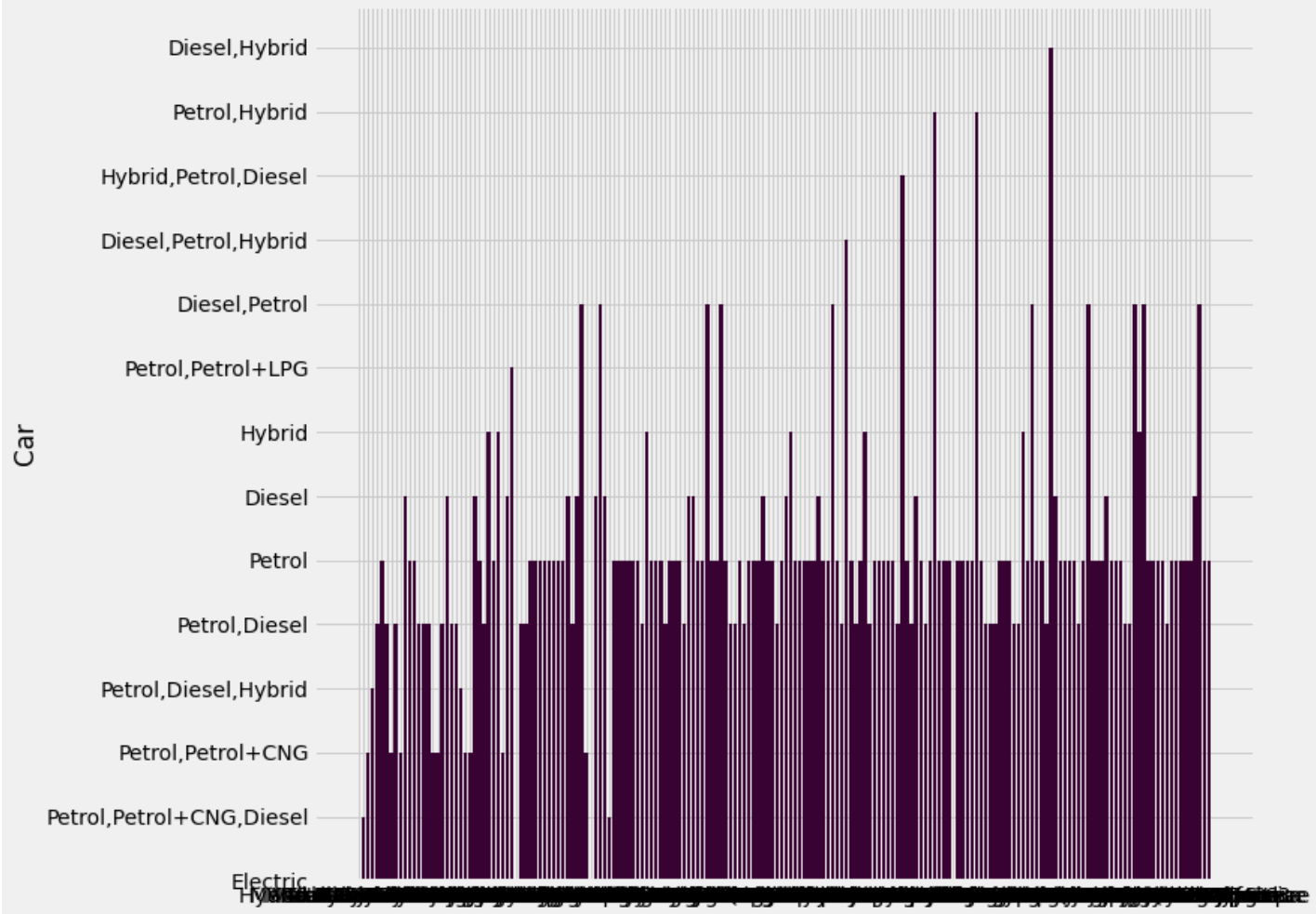
In [35]:
```python
s=data[data.Style=='premium Sports Coupe']
```

In [36]:
```python
plt.bar(s['Transmission'],s['VehicleType'])
plt.title('car info')
plt.ylabel('price')
plt.gcf().set_size_inches(6,6)
plt.xticks(rotation=90)
plt.show()
```
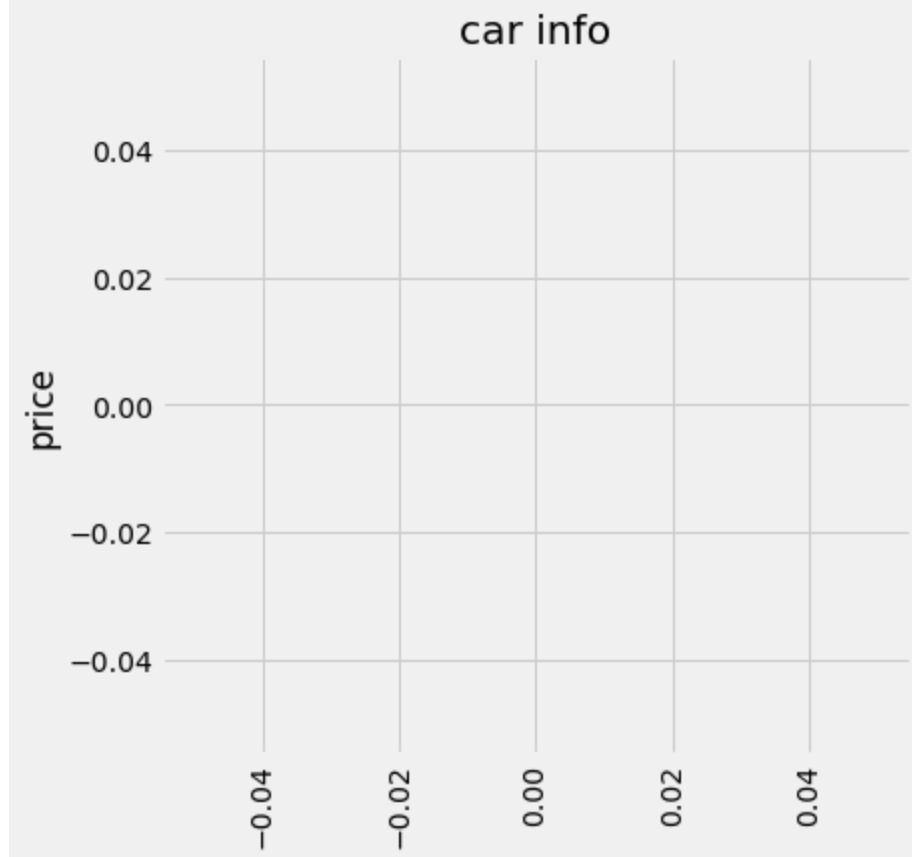
# car info



```
In [37]:  plt.bar(data['Car'],data['VehicleType'],color='#380232')
          plt.title('car information')
          plt.ylabel('Car')
          plt.gcf().set_size_inches(10,10)
          plt.show()
```
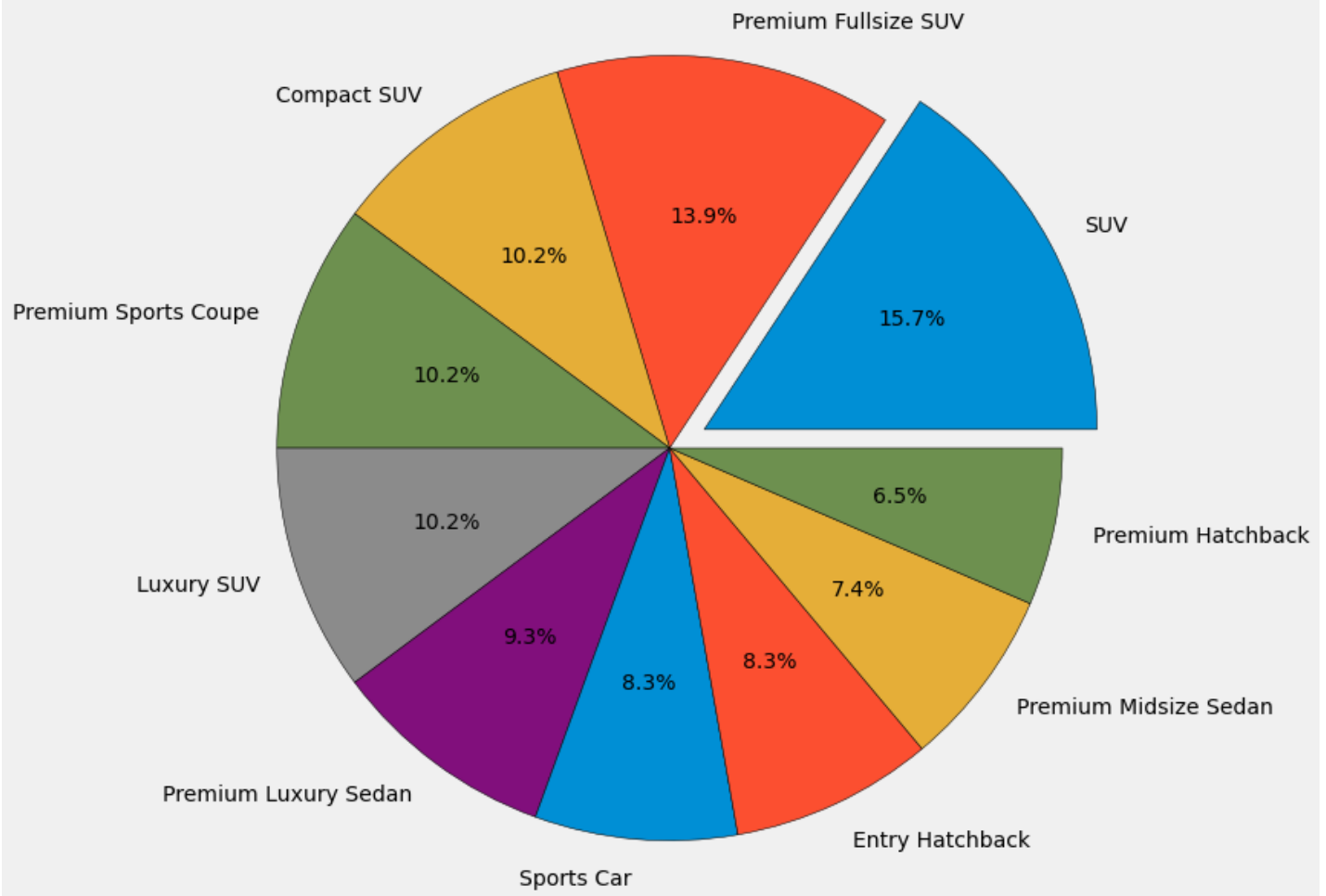
car information

```
style=data["Style"].value_counts().head(10).values
name=data["Style"].value_counts().head(10).index
plt.gcf().set_size_inches(20,11)
plt.pie(style,labels=name,autopct="%1.1f%%",wedgeprops={"edgecolor":"black"},explode=[0.1,
plt.title('Top 10')
plt.show()
```

# Top 10