**Exercise 1: From the given dataset print the first and last five rows.**

import pandas as pd

df = pd.read\_csv("D:\\Automobile\_data.csv")

print(df.head(5))

### Exercise 3: Find the most expensive car company name

df = df [['company','price']][df.price==df['price'].max()]

df

### Exercise 4: Print All Toyota Cars details

car\_Manufacturers = df.groupby('company')

toyotaDf = car\_Manufacturers.get\_group('audi')

print(toyotaDf)

### Exercise 5: Count total cars per company

print(df['company'].value\_counts())

### Exercise 6: Find each company’s Higesht price car

df = pd.read\_csv("D:\\Automobile\_data.csv")

car\_Manufacturers = df.groupby('company')

priceDf = car\_Manufacturers['company','price'].max()

print(priceDf)

### Exercise 7: Find the average mileage of each car making company

f = pd.read\_csv("D:\\Automobile\_data.csv")

car\_Manufacturers = df.groupby('company')

mileageDf = car\_Manufacturers['company','average-mileage'].mean()

print(mileageDf)

### Exercise 8: Sort all cars by Price column

carsDf = pd.read\_csv("D:\\Automobile\_data.csv")

carsDf = carsDf.sort\_values(by=['price', 'horsepower'], ascending=False)

print(carsDf.head(15))

### Exercise 9: Concatenate two data frames using the following conditions

GermanCars = {'Company': ['Ford', 'Mercedes', 'BMV', 'Audi'], 'Price': [23845, 171995, 135925 , 71400]}

carsDf1 = pd.DataFrame.from\_dict(GermanCars)

japaneseCars = {'Company': ['Toyota', 'Honda', 'Nissan', 'Mitsubishi '], 'Price': [29995, 23600, 61500 , 58900]}

carsDf2 = pd.DataFrame.from\_dict(japaneseCars)

carsDf = pd.concat([carsDf1, carsDf2], keys=["Germany", "Japan"])

print(carsDf)

### Exercise 10: Merge two data frames using the following condition

Car\_Price = {'Company': ['Toyota', 'Honda', 'BMV', 'Audi'], 'Price': [23845, 17995, 135925 , 71400]}

carPriceDf = pd.DataFrame.from\_dict(Car\_Price)

car\_Horsepower = {'Company': ['Toyota', 'Honda', 'BMV', 'Audi'], 'horsepower': [141, 80, 182 , 160]}

carsHorsepowerDf = pd.DataFrame.from\_dict(car\_Horsepower)

carsDf = pd.merge(carPriceDf, carsHorsepowerDf, on="Company")

print(carsDf)