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**Batch-F6**

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**OSS Lab – 7**

**Question 1:**From given data set, print first and last five rows.

**import pandas as pd**

**data = pd.read\_csv("data.csv")**

**def Head\_and\_tail():**

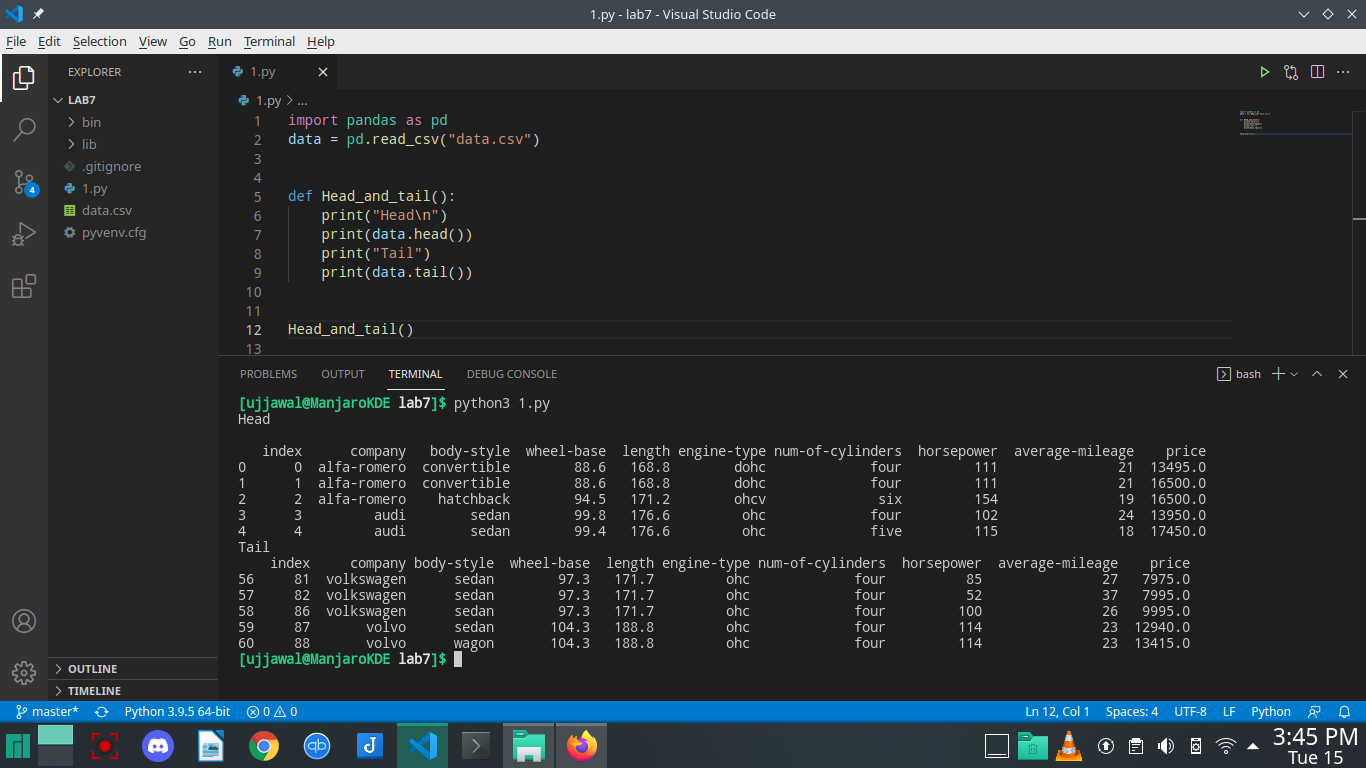
**print("Head\n")**

**print(data.head())**

**print("Tail")**

**print(data.tail())**

**Head\_and\_tail()**



**Question 2:**Replace all column values which contain ‘?’ and ‘n.a.’ with NaN. Update the CSV file.

**import pandas as pd**

**data = pd.read\_csv("data.csv")**

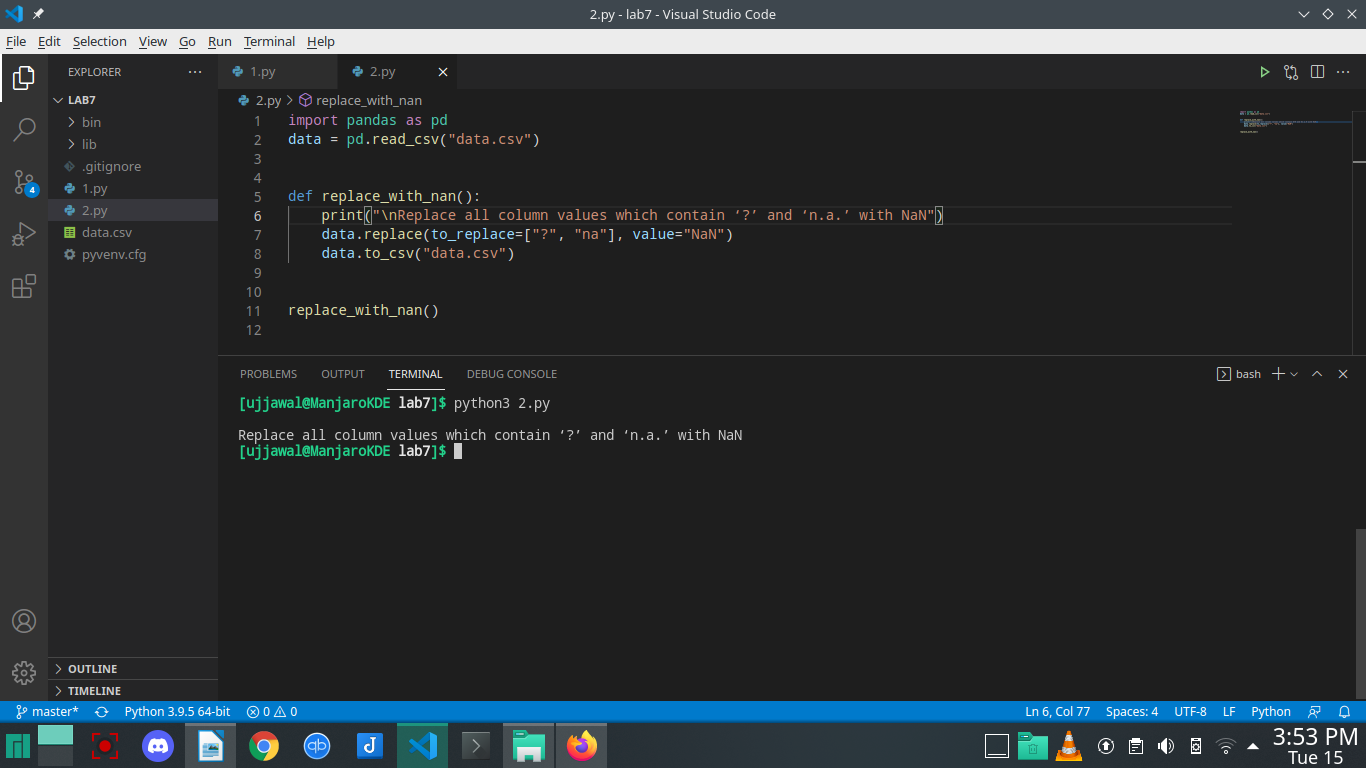
**def replace\_with\_nan():**

**print("\nReplace all column values which contain ‘?’ and ‘n.a.’ with NaN")**

**data.replace(to\_replace=["?", "na"], value="NaN")**

**data.to\_csv("data.csv")**

**replace\_with\_nan()**



**Question 3:**Print All BMW Cars details.

**import pandas as pd**

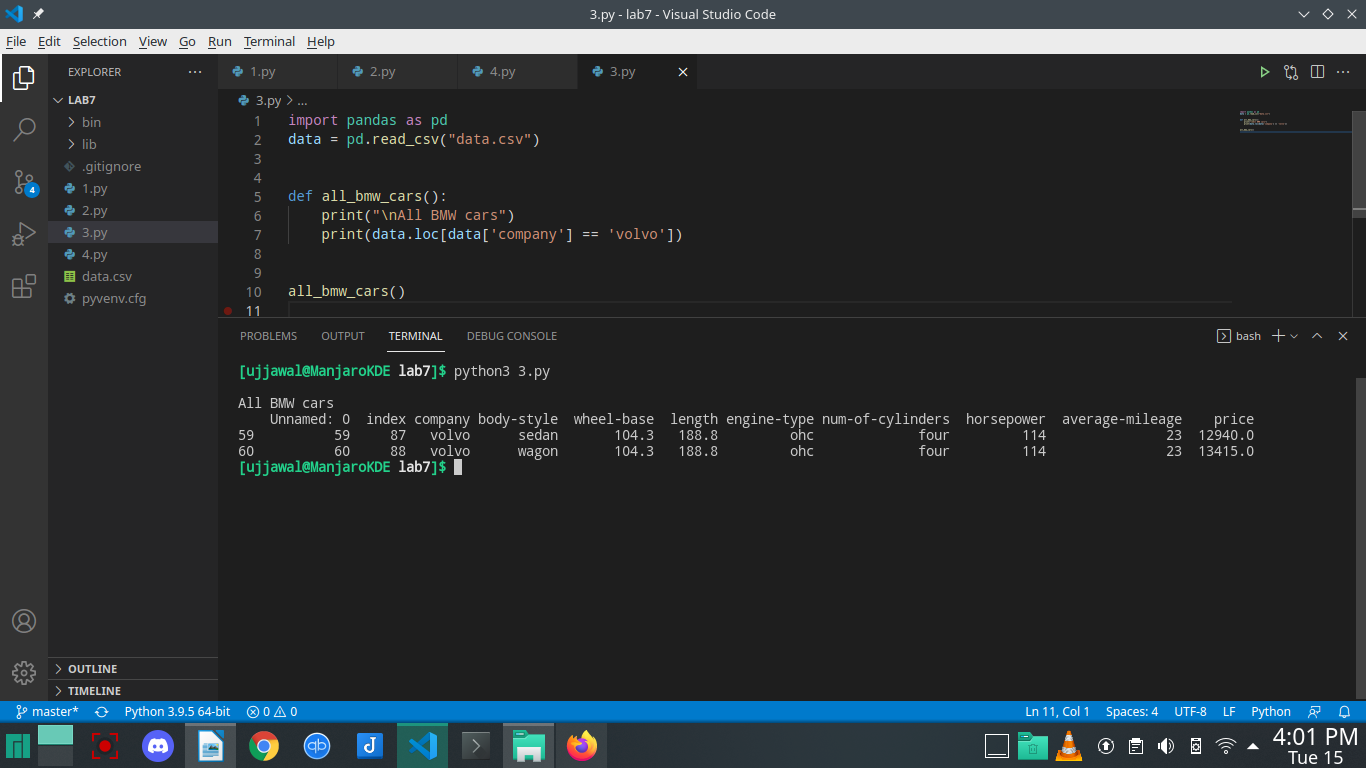
**data = pd.read\_csv("data.csv")**

**def all\_bmw\_cars():**

**print("\nAll BMW cars")**

**print(data.loc[data['company'] == 'volvo'])**

**all\_bmw\_cars()**

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**Question 4:**Count total cars per company.

**import pandas as pd**

**data = pd.read\_csv("data.csv")**

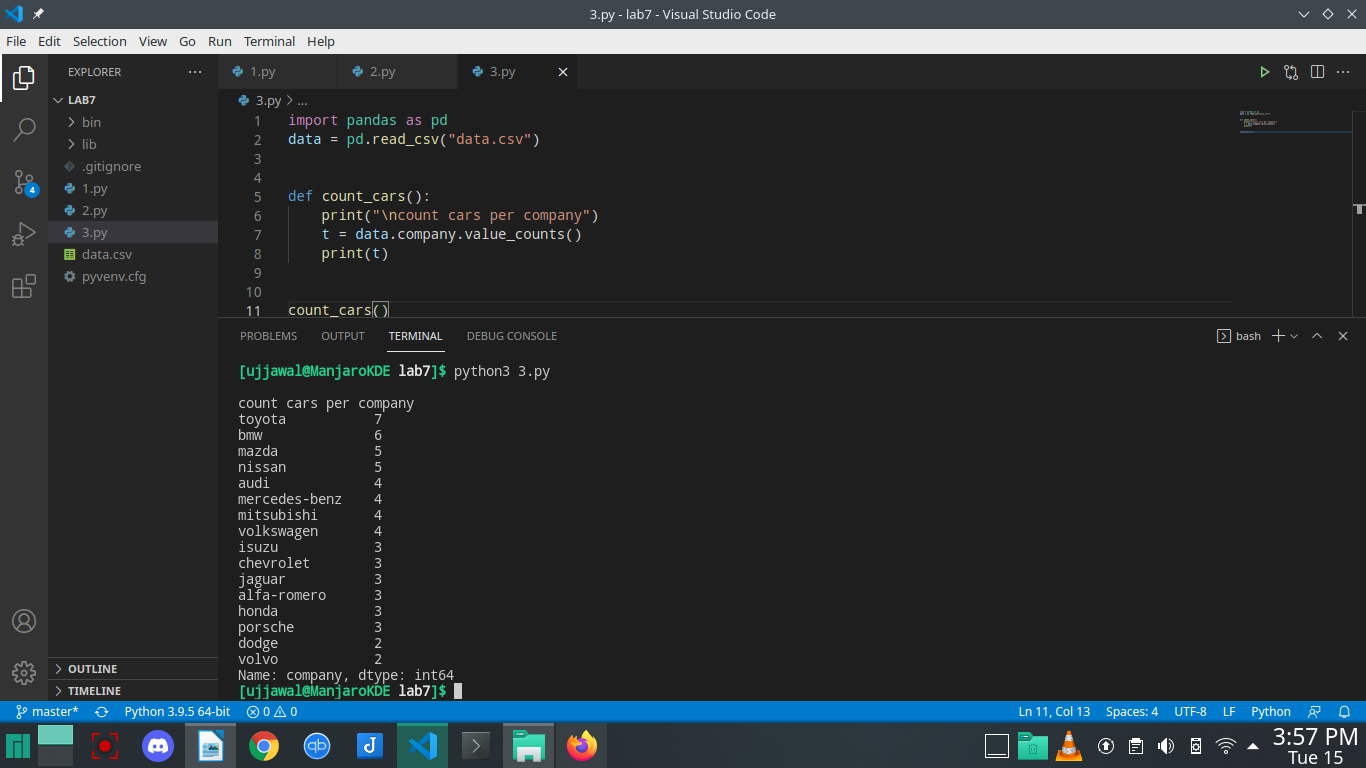
**def count\_cars():**

**print("\ncount cars per company")**

**t = data.company.value\_counts()**

**print(t)**

**count\_cars()**



**Question 5:**Find each company’s Highest price car.

**def Highest\_price\_car():**

**print("\nHigest price car companies")**

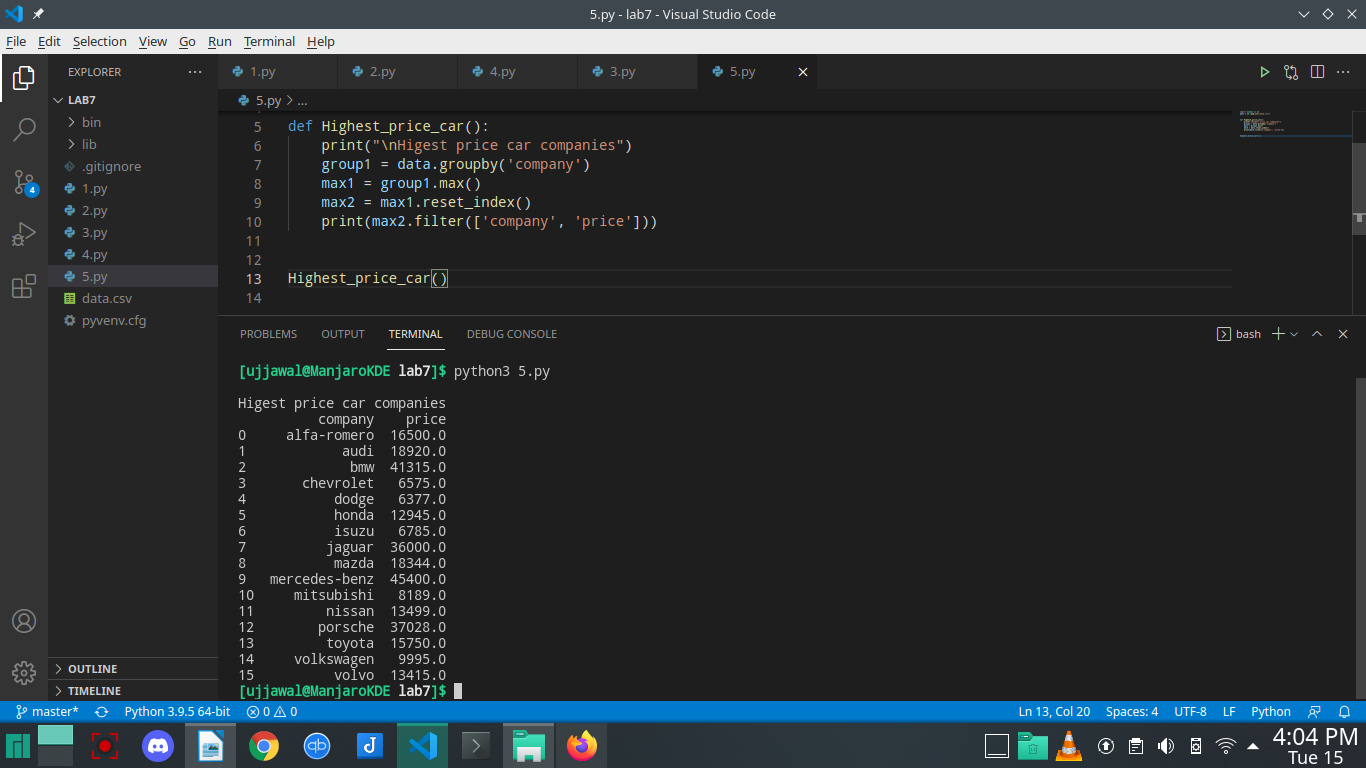
**group1 = data.groupby('company')**

**max1 = group1.max()**

**max2 = max1.reset\_index()**

**print(max2.filter(['company', 'price']))**

**Highest\_price\_car()**



**Question 6:**Find the average mileage of each car making company.

**import pandas as pd**

**data = pd.read\_csv("data.csv")**

**def average\_milege():**

**print("\naverage milege of each car making company")**

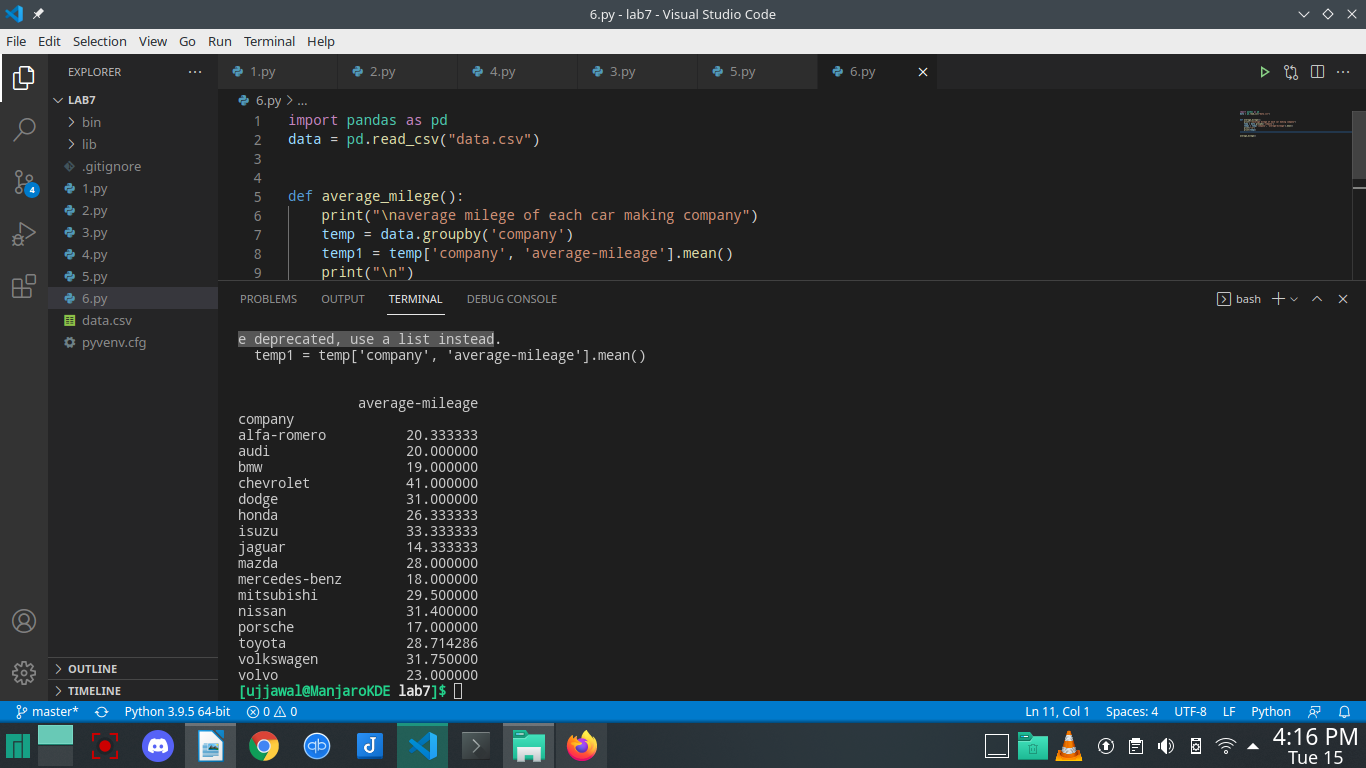
**temp = data.groupby('company')**

**temp1 = temp['company', 'average-mileage'].mean()**

**print("\n")**

**print(temp1)**

**average\_milege()**



**Question 7:**Merge two data frames using the following condition: Create two data frames using the

following two Dicts, Merge two data frames, and append second data frame as a new

column to the first data frame.

* Car\_Price = {'Company': ['Toyota', 'Honda', 'BMV', 'Audi'], 'Price': [23845, 17995, 135925, 71400]}
* Car\_Horsepower = {'Company': ['Toyota', 'Honda', 'BMV', 'Audi'], 'horsepower': [141, 80, 182, 160]}

**import pandas as pd**

**data = pd.read\_csv("data.csv")**

**def merging\_df():**

**print("\nMerging two dataframes")**

**Price = {'Company': ['Toyota', 'Honda', 'BMV', 'Audi'],**

**'Price': [23845, 17995, 135925, 71400]}**

**carPriceDf = pd.DataFrame.from\_dict(Price)**

**Horsepower = {'Company': ['Toyota', 'Honda', 'BMV',**

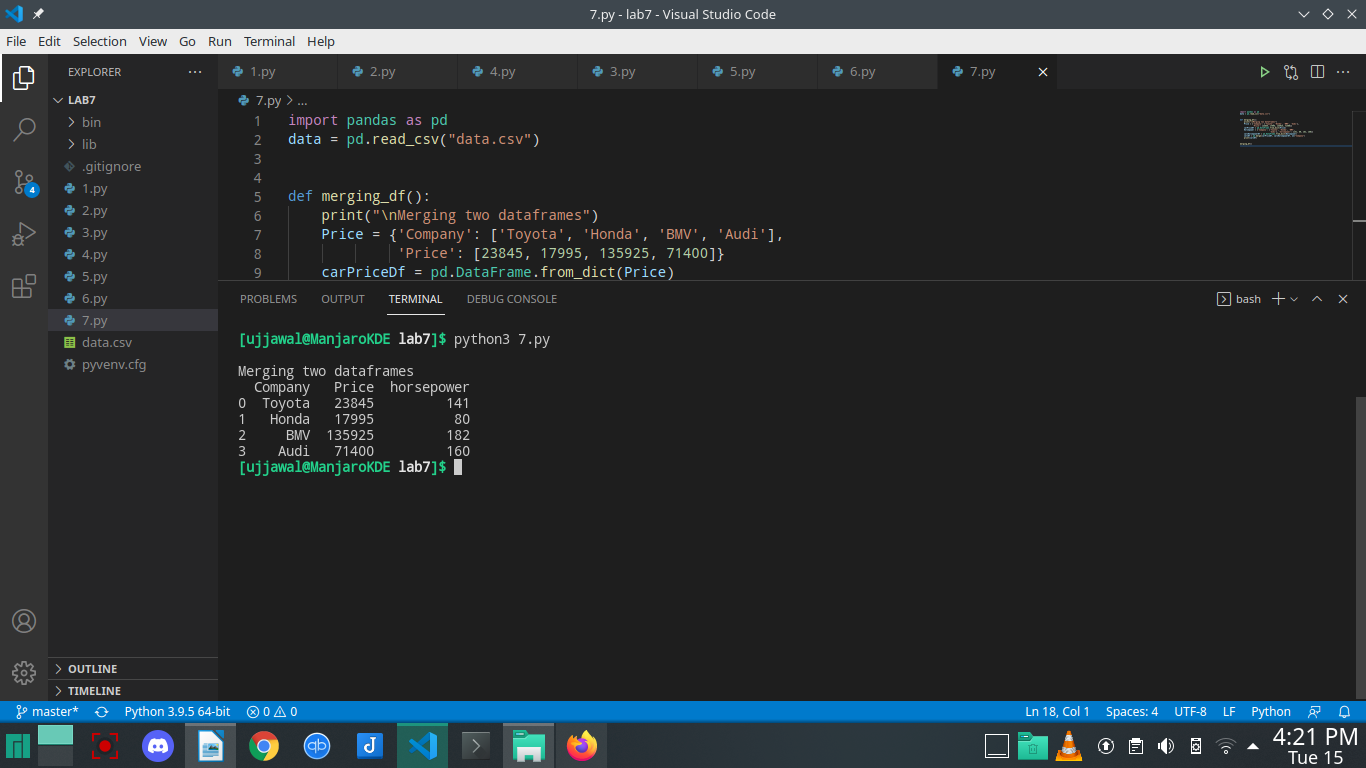
**'Audi'], 'horsepower': [141, 80, 182, 160]}**

**carsHorsepowerDf = pd.DataFrame.from\_dict(Horsepower)**

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

**print(carsDf)**

**merging\_df()**

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