

Name: Arnab Dey ID: U20210014

4)

Ans: supplied write\_time.csv along with submission. Refer to the time column of the same.

5)

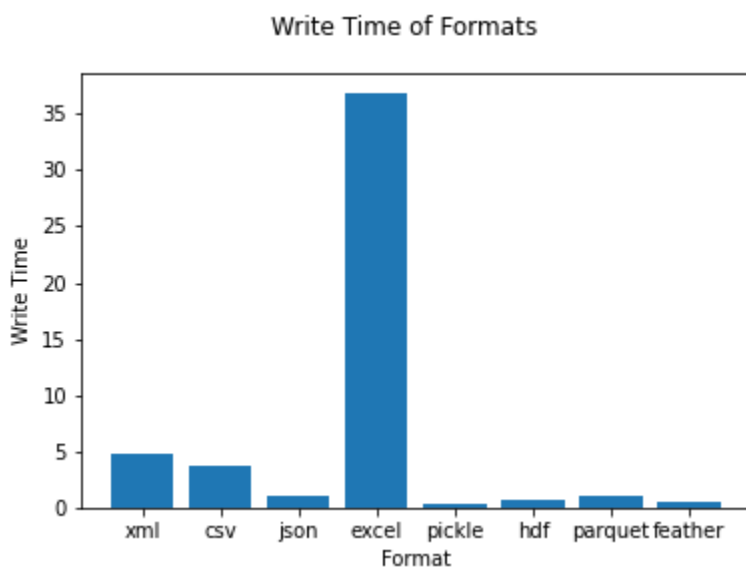
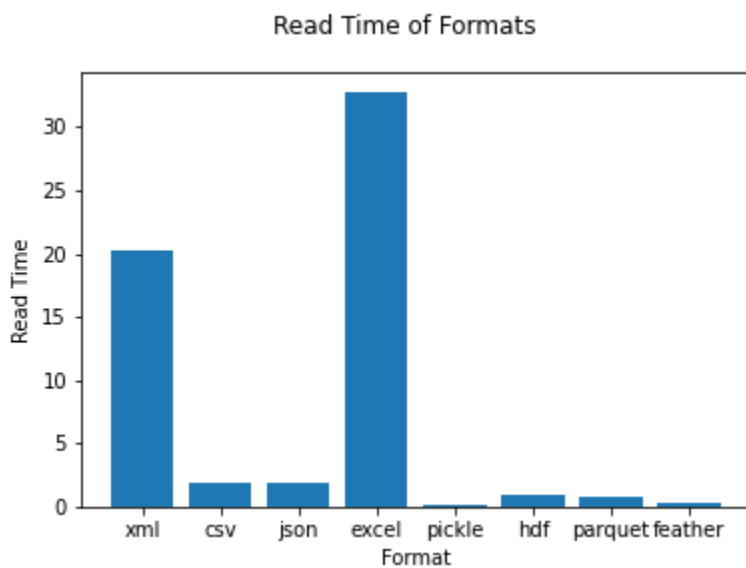
Ans: supplied write\_time.csv along with submission. Refer to the size column of the same.

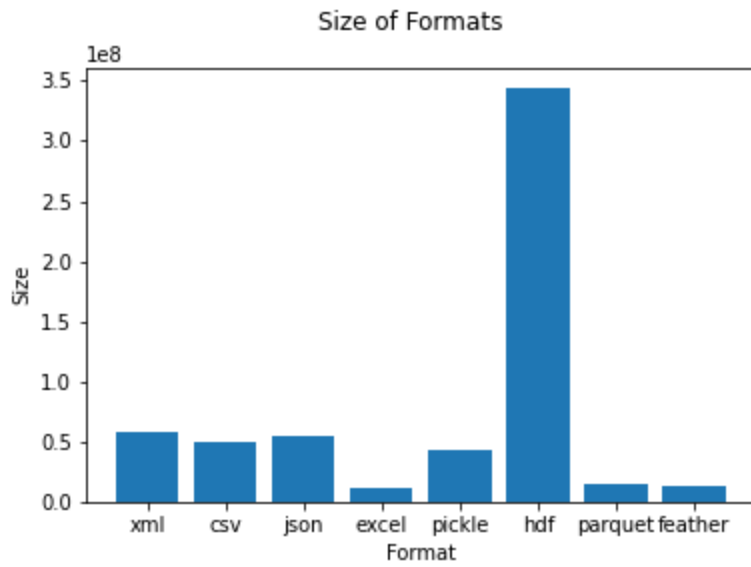
6)

Ans: supplied read\_time.csv along with submission. Refer to the time column of the same.

7)

Ans:



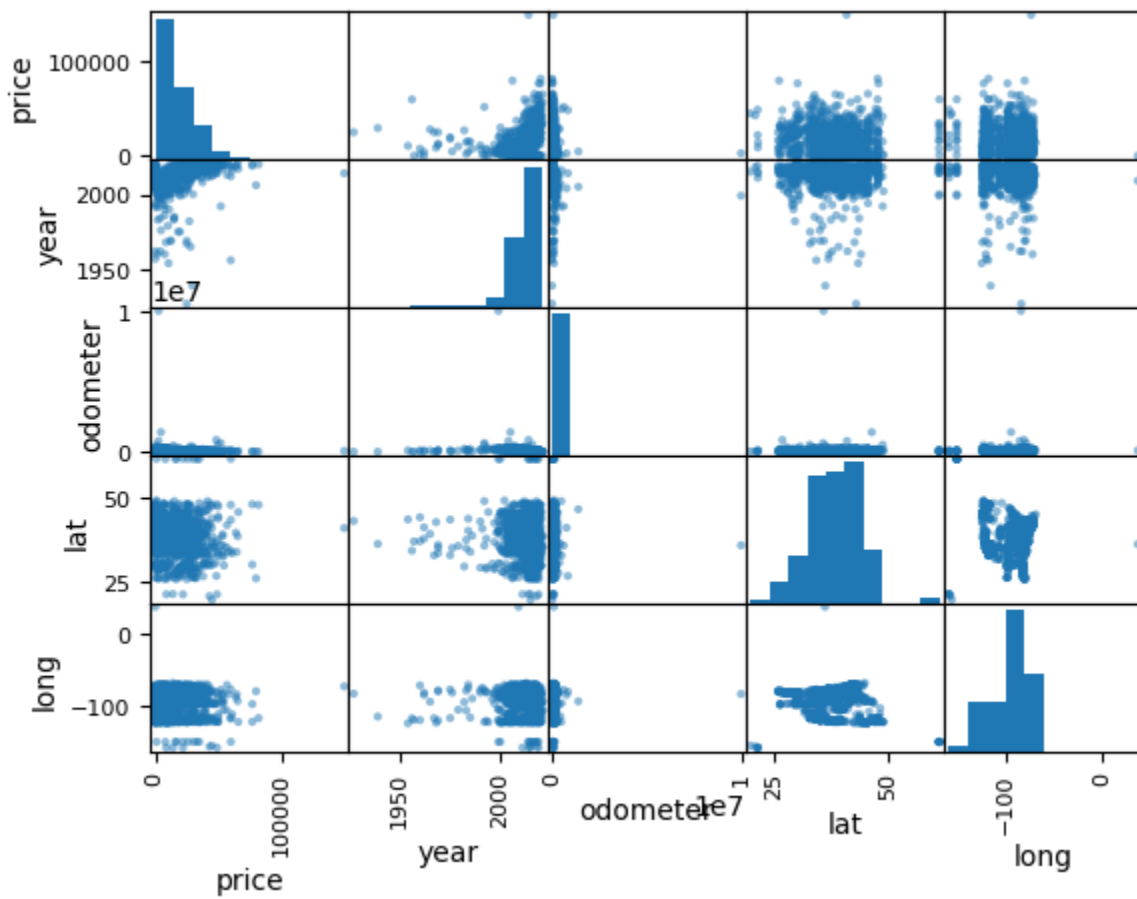


8)

Ans: supplied code file with submission.

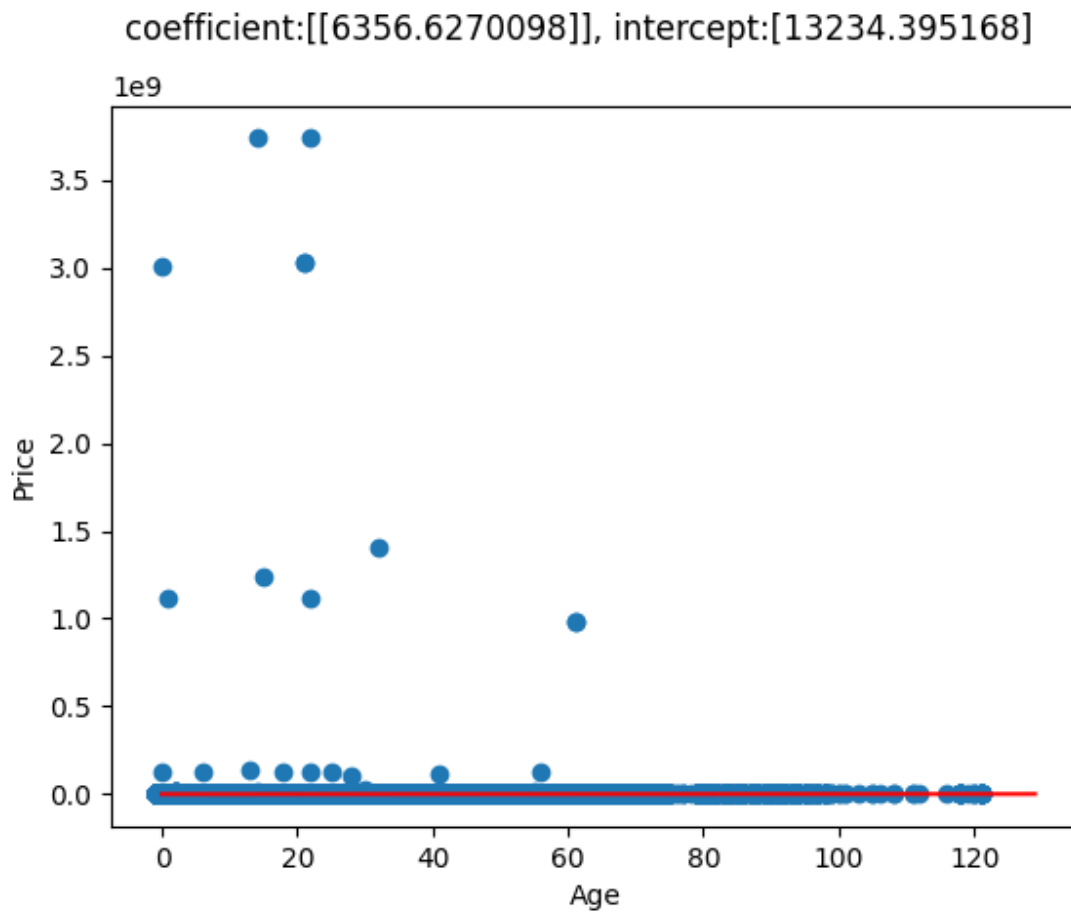
9)

Ans:



10)

Ans:



11)

Ans:For sqlite3

Write\_time: 2.678936063995934

Size: 244695040

Read\_time: 7.244320361998689

12)

Ans: Using DataFrame.query(...)

885

```
prius_data = df_clean[df_clean['model'].str.contains('prius') == True]
prius_data.query('condition == "excellent" and posting_date.dt.year >= 2021')
```

Time: 0.0077351189975161105

Using read\_sql\_query

892

```
query = "select * from data where condition == \'excellent\' and model  
like \'%prius%\' and posting_date >= \'2021-01-01\'"  
pd.read_sql_query(query, con)
```

Time: 0.11322941999969771