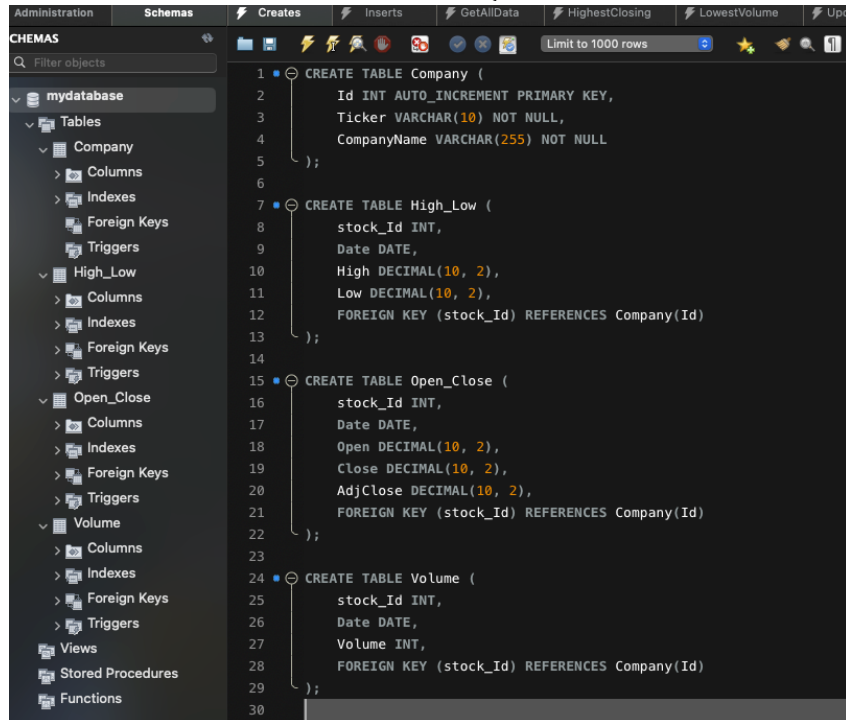
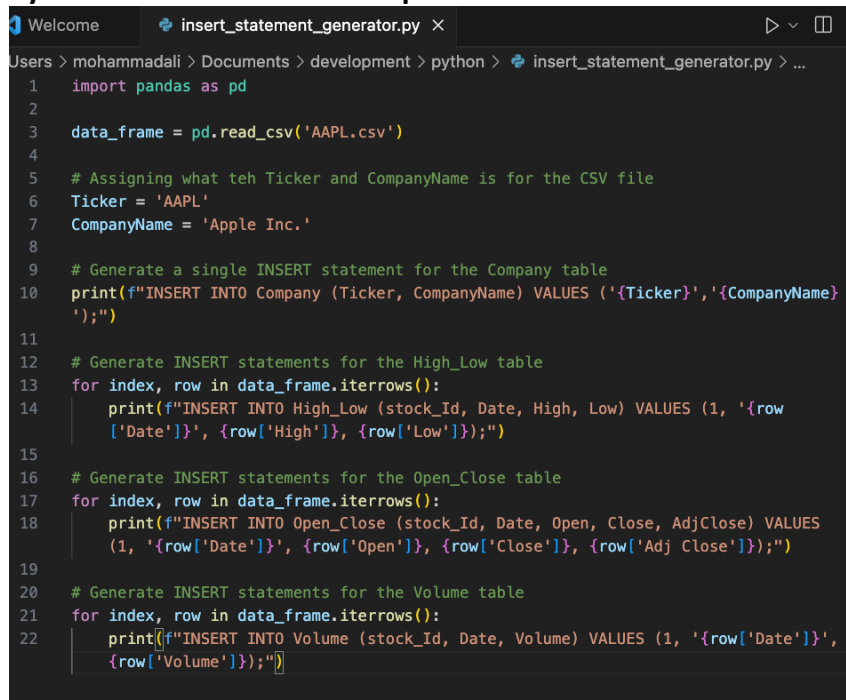


Mohammad Ali
Lab 3 – Database Tutorial

Database Schema + Define Tables SQL



Python Insert Statements Script



All Data Query

Creates

Inserts

GetAllData

HighestClosing

LowestVolume

UpdateVolume

Limit to 1000 rows

Star

Filter

Help

Refresh

```

1 SELECT
2     c.Ticker,
3     c.CompanyName,
4     oc.Date,
5     oc.Open,
6     hl.High,
7     hl.Low,
8     oc.Close,
9     oc.AdjClose,
10    v.Volume
11 FROM
12     Company c
13 JOIN
14     Open_Close oc ON c.Id = oc.stock_Id
15 JOIN
16     High_Low hl ON oc.stock_Id = hl.stock_Id AND oc.Date = hl.Date
17 JOIN
18     Volume v ON oc.stock_Id = v.stock_Id AND oc.Date = v.Date
19 ORDER BY
20     oc.Date;

```

0%

13:20

Result Grid

Filter Rows:

Search

Export:

Fetch rows:

Ticker	CompanyName	Date	Open	High	Low	Close	AdjClose	Volume
AAPL	Apple Inc.	2016-11-22	27.99	28.11	27.85	27.95	26.31	103862000
AAPL	Apple Inc.	2016-11-23	27.84	27.88	27.58	27.81	26.17	109705600
AAPL	Apple Inc.	2016-11-25	27.78	27.97	27.74	27.95	26.31	45903600
AAPL	Apple Inc.	2016-11-28	27.86	28.12	27.85	27.89	26.25	108776000
AAPL	Apple Inc.	2016-11-29	27.70	28.01	27.52	27.87	26.23	114115200
AAPL	Apple Inc.	2016-11-30	27.90	28.05	27.57	27.63	26.01	144649200
AAPL	Apple Inc.	2016-12-01	27.59	27.74	27.26	27.37	25.77	148347600
AAPL	Apple Inc.	2016-12-02	27.29	27.52	27.21	27.48	25.86	106112000
AAPL	Apple Inc.	2016-12-05	27.50	27.51	27.06	27.28	25.68	137298000
AAPL	Apple Inc.	2016-12-06	27.38	27.59	27.30	27.49	25.87	104782000
AAPL	Apple Inc.	2016-12-07	27.32	27.80	27.29	27.76	26.13	119994800
AAPL	Apple Inc.	2016-12-08	27.72	28.11	27.65	28.03	26.38	108273200
AAPL	Apple Inc.	2016-12-09	28.08	28.67	28.08	28.49	26.81	137610400
AAPL	Apple Inc.	2016-12-12	28.32	28.75	28.12	28.33	26.66	105497600
AAPL	Apple Inc.	2016-12-13	28.46	28.98	28.44	28.80	27.11	174935200
AAPL	Apple Inc.	2016-12-14	28.76	29.05	28.75	28.80	27.11	136127200
AAPL	Apple Inc.	2016-12-15	28.84	29.18	28.81	28.96	27.25	1
AAPL	Apple Inc.	2016-12-16	29.12	29.13	28.91	28.99	27.29	177404400
AAPL	Apple Inc.	2016-12-19	28.95	29.34	28.94	29.16	27.45	111117600
AAPL	Apple Inc.	2016-12-20	29.18	29.38	29.17	29.24	27.52	85700000
AAPL	Apple Inc.	2016-12-21	29.20	29.35	29.20	29.26	27.55	95132800
AAPL	Apple Inc.	2016-12-22	29.09	29.13	28.91	29.07	27.37	104343600
AAPL	Apple Inc.	2016-12-23	28.90	29.13	28.90	29.13	27.42	56998000
AAPL	Apple Inc.	2016-12-27	29.13	29.45	29.12	29.32	27.59	73187600
AAPL	Apple Inc.	2016-12-28	29.38	29.50	29.05	29.19	27.48	83623600

Highest Closing Price Query

The screenshot shows a database query editor with a toolbar at the top containing icons for various actions like 'Creates', 'Inserts', 'GetAllData', 'HighestClosing', 'LowestVolume', and 'UpdateVolum'. Below the toolbar is a 'Limit to 1000 rows' dropdown. The main area contains a SQL query:

```
1 SELECT
2     oc.Date,
3     oc.Close
4 FROM
5     Open_Close oc
6 WHERE
7     oc.Close = (SELECT MAX(Close) FROM Open_Close);
```

Below the query editor is a 'Result Grid' section with a 'Filter Rows' search bar and an 'Export' button. The result grid shows a table with two columns: 'Date' and 'Close'. The first row of data shows '2021-11-19' and '160.55'.

Date	Close
2021-11-19	160.55

Lowest Volume Query

The screenshot shows a database query editor with a toolbar at the top containing icons for various actions like 'Creates', 'Inserts', 'GetAllData', 'HighestClosing', 'LowestVolume', and 'Upd'. Below the toolbar is a 'Limit to 1000 rows' dropdown. The main area contains a SQL query:

```
1 SELECT
2     v.Date,
3     v.Volume
4 FROM
5     Volume v
6 WHERE
7     v.Volume = (SELECT MIN(Volume) FROM Volume);
```

Below the query editor is a 'Result Grid' section with a 'Filter Rows' search bar and an 'Export' button. The result grid shows a table with two columns: 'Date' and 'Volume'. The first row of data shows '2016-12-15' and '1'. An 'Export recordset to an external file' button is visible next to the 'Export' button.

Date	Volume
2016-12-15	1

Update Volume Query

```
Creates Inserts GetAllData HighestClosing LowestVolume
Limit to 1000 rows
1 UPDATE Volume
2 SET Volume = 1
3 WHERE Date = '2016-12-15';
11 10:09:45 SELECT COUNT(*) AS Volume_Count FROM Volume LIMIT 0, 1000
12 16:09:37 SELECT c.Ticker, c.CompanyName, oc.Date, oc.Open, hl.H
13 16:10:21 SELECT oc.Date, oc.Close FROM Open_Close oc WHERE oc.
14 16:10:39 SELECT v.Date, v.Volume FROM Volume v WHERE v.Volume =
15 16:10:56 UPDATE Volume SET Volume = 1 WHERE Date = '2016-12-15'
```

Delete Data Query

```
Creates Inserts GetAllData HighestClosing LowestVolume UpdateVolume DeleteData
Limit to 1000 rows
1 DELETE FROM Volume
2 WHERE Date = '2018-03-19';
13 16:10:21 SELECT oc.Date, oc.Close FROM Open_Close oc WHERE oc.Close = (SELECT MAX(Close) FROM Open_Clo
14 16:10:39 SELECT v.Date, v.Volume FROM Volume v WHERE v.Volume = (SELECT MIN(Volume) FROM Volume) LIMIT 0
15 16:10:56 UPDATE Volume SET Volume = 1 WHERE Date = '2016-12-15'
16 16:11:41 DELETE FROM Volume WHERE Date = '2018-03-19'
```

Final Count Rows of Data (high_low == open_close)

```
Creates Inserts GetAllData HighestClosing LowestVolume UpdateVolume DeleteData RowCount
Limit to 1000 rows
1 SELECT COUNT(*) AS High_Low_Count FROM High_Low;
2
3 SELECT COUNT(*) AS Open_Close_Count FROM Open_Close;
4
5 SELECT COUNT(*) AS Volume_Count FROM Volume;
00% 45:5
Result Grid Filter Rows: Search Export:
Volume_Count
1257
Creates Inserts GetAllData HighestClosing LowestVolume UpdateVolume DeleteData RowCount
Limit to 1000 rows
1 SELECT COUNT(*) AS High_Low_Count FROM High_Low;
2
3 SELECT COUNT(*) AS Open_Close_Count FROM Open_Close;
4
5 SELECT COUNT(*) AS Volume_Count FROM Volume;
100% 53:3
Result Grid Filter Rows: Search Export:
Open_Close_Count
1258
```