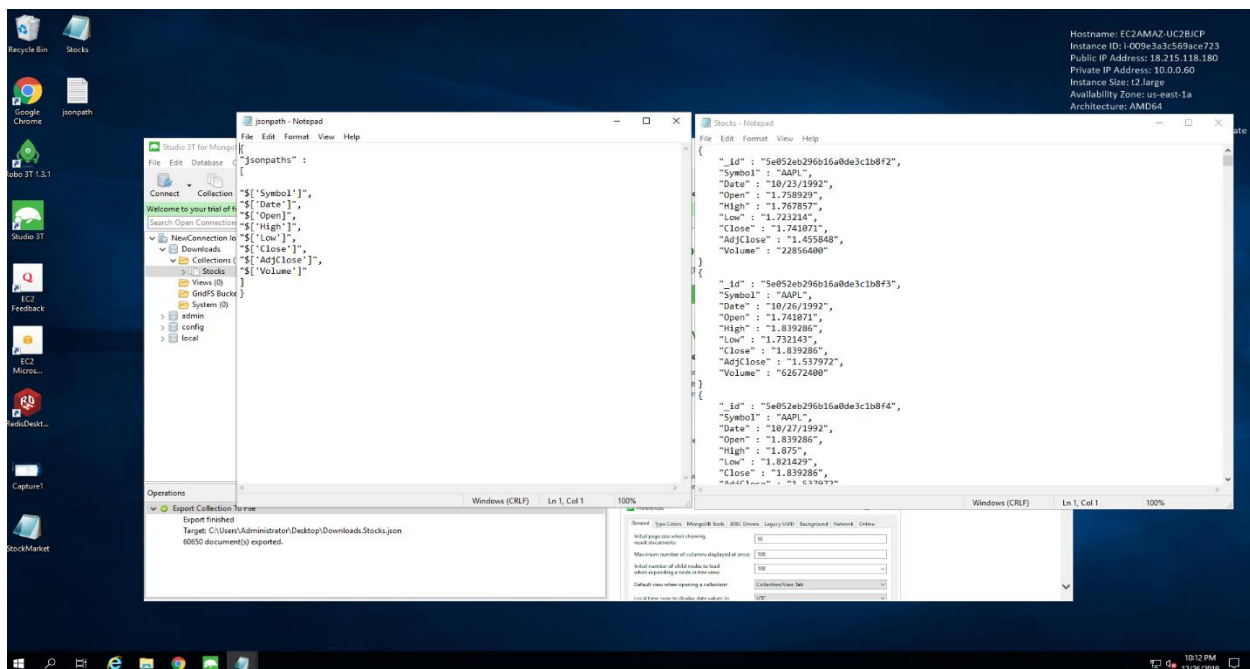
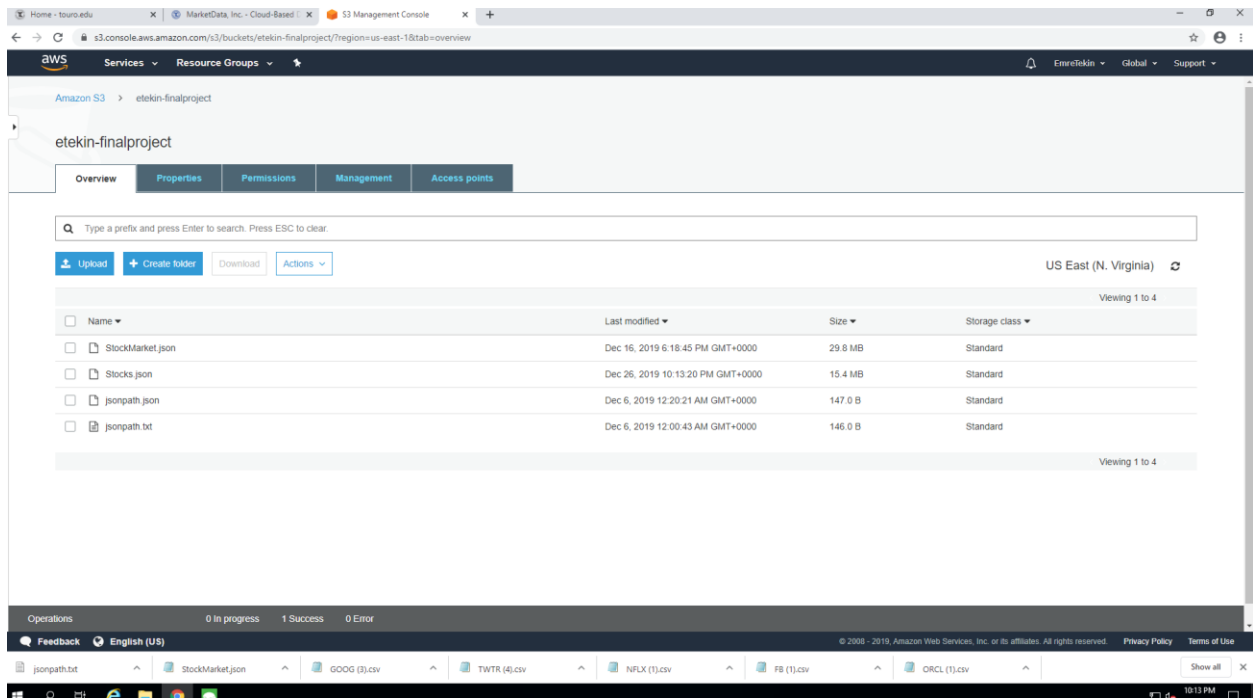


I have imported csv files into mongo db.

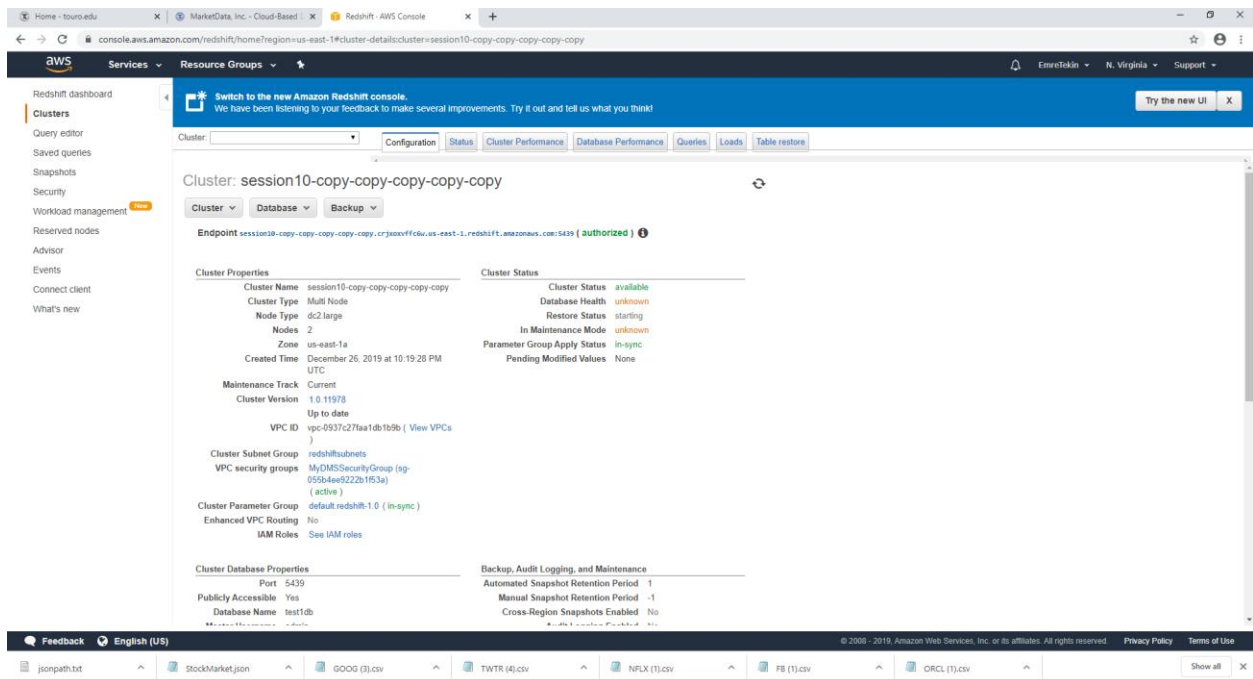


I have exported as json and edited them.

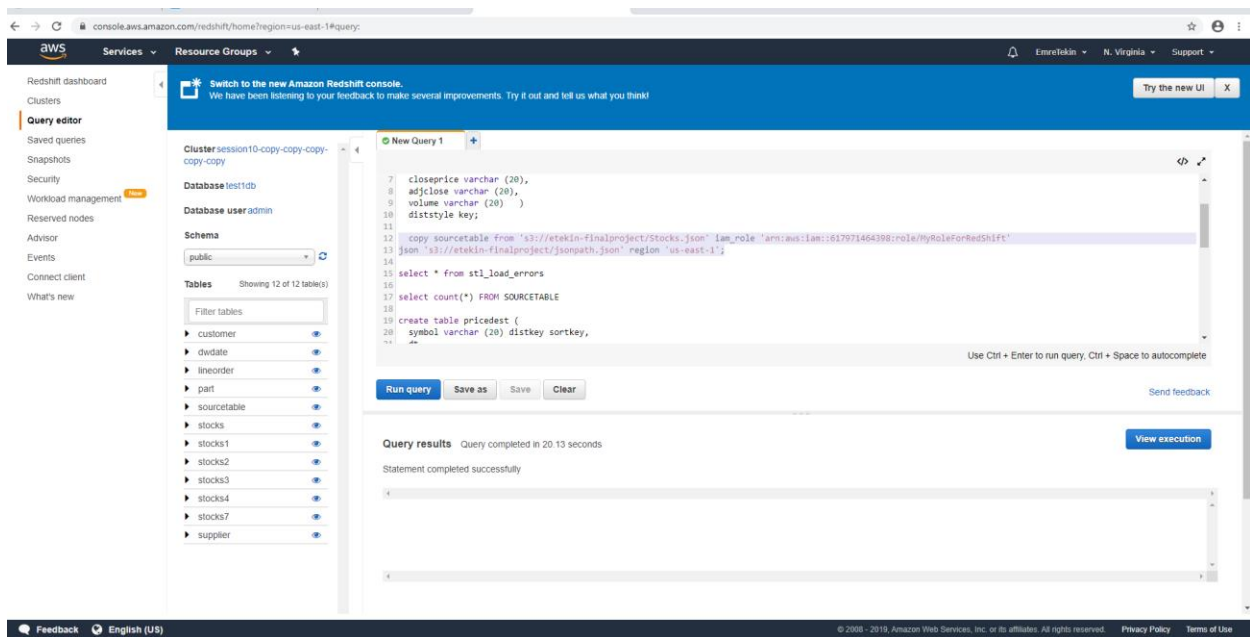
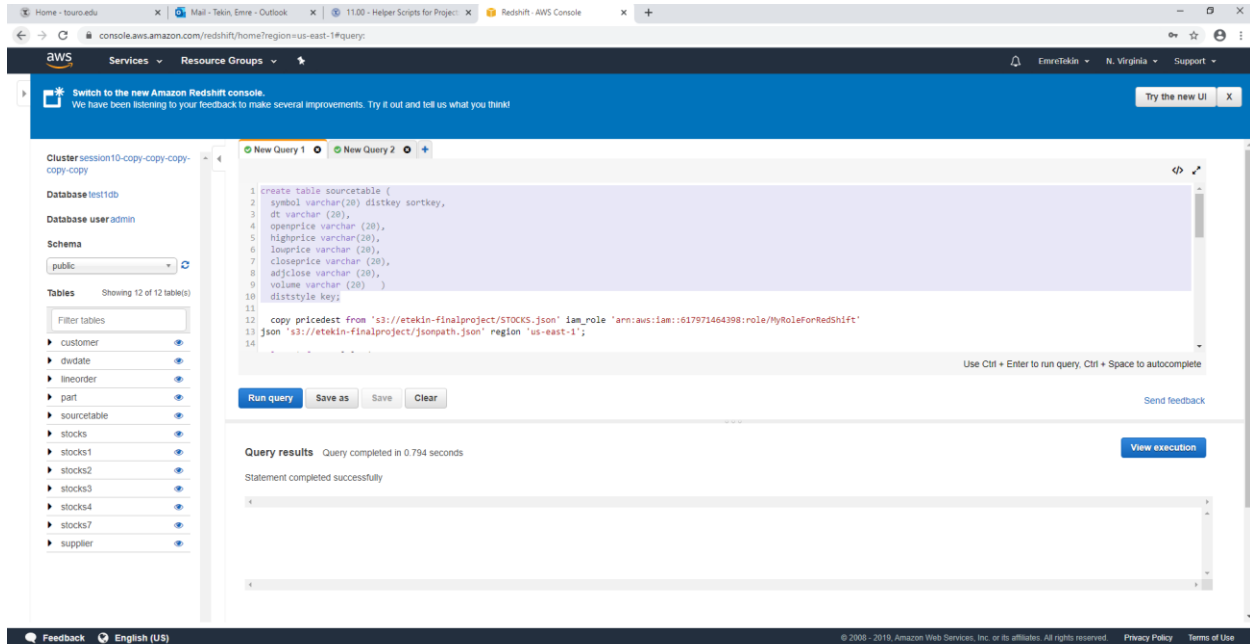
I have also created my json path file.



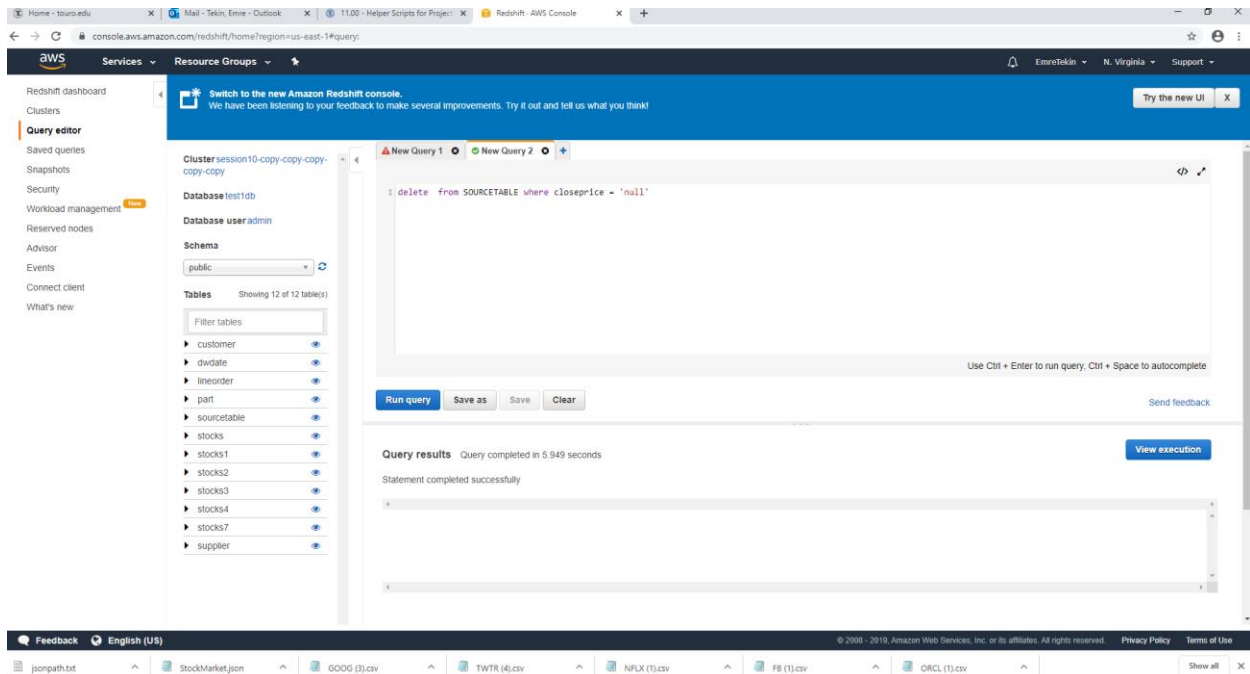
I have uploaded them into my S3 Bucket.



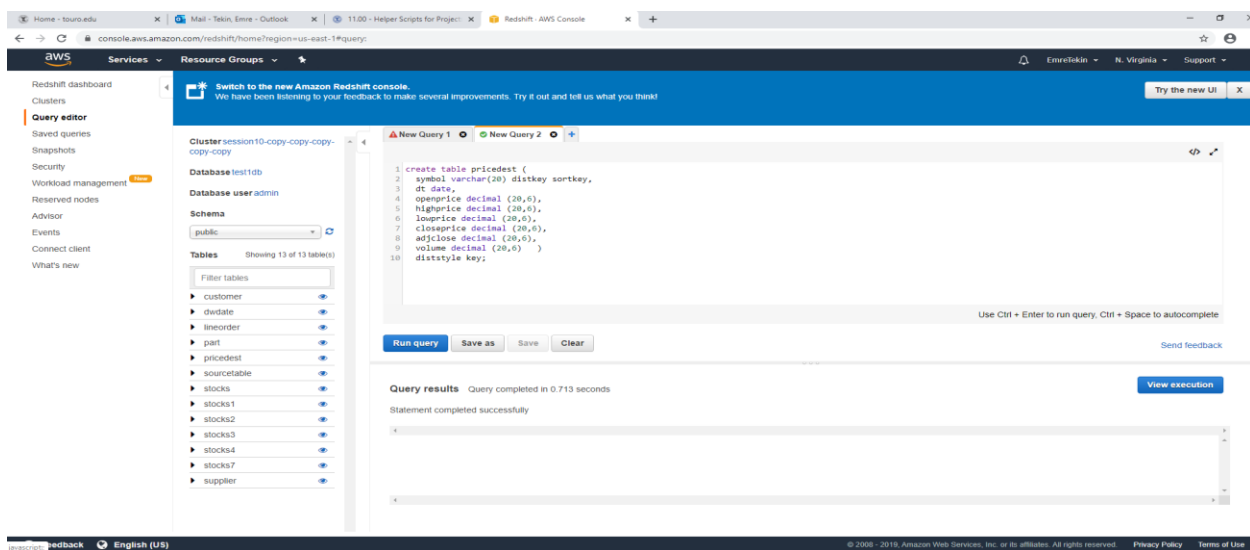
I have created my redshift cluster.



I have created my source table and copied data from s3 to redshift.



I have cleaned my data by cleaning null values.

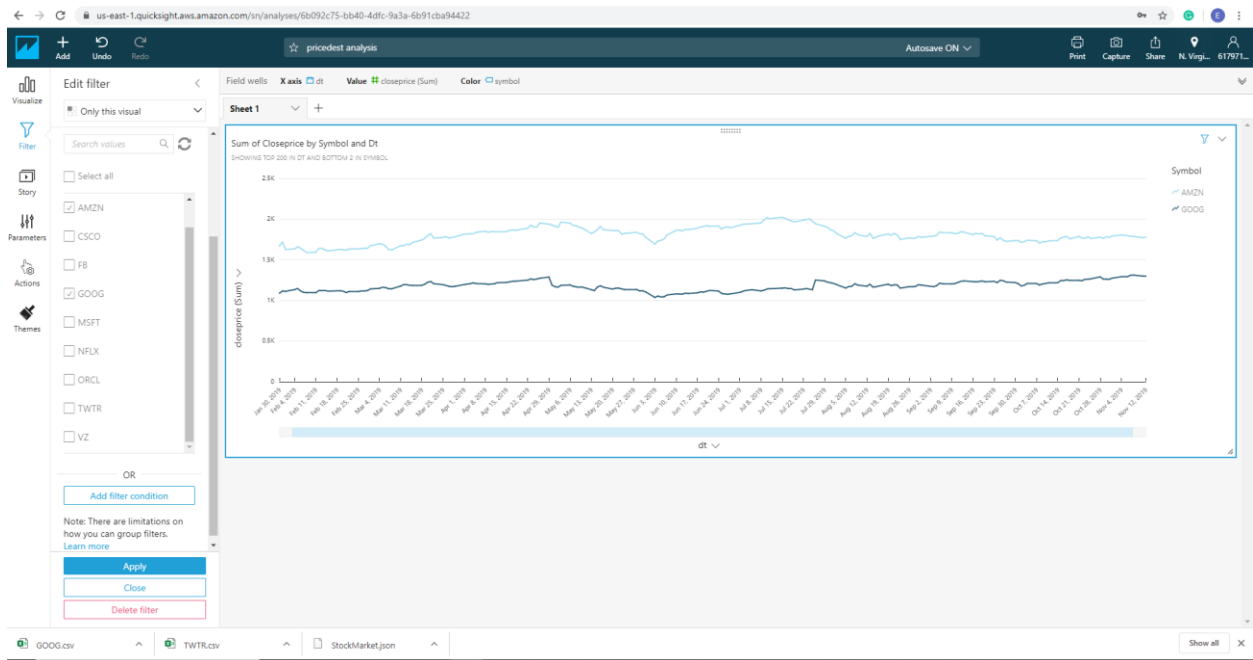


I have created my “pricedest” table.

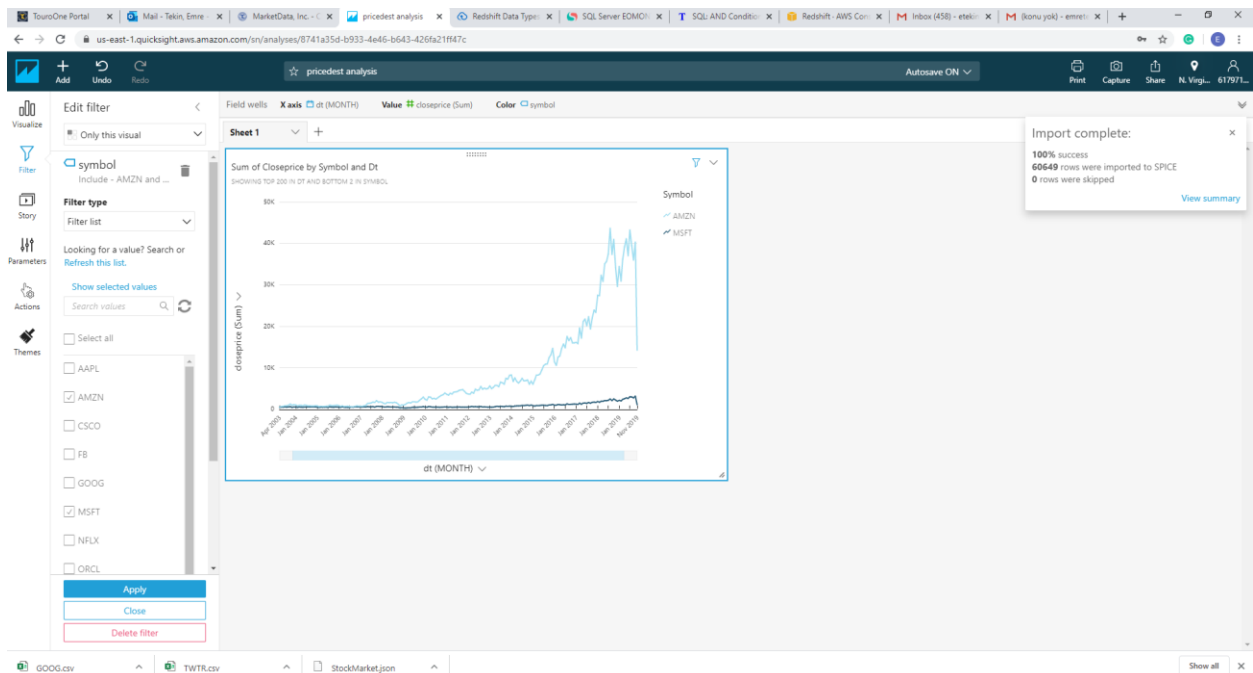
[illegible]

I have inserted data into "pricedest" from "sourcetable" with new data types.

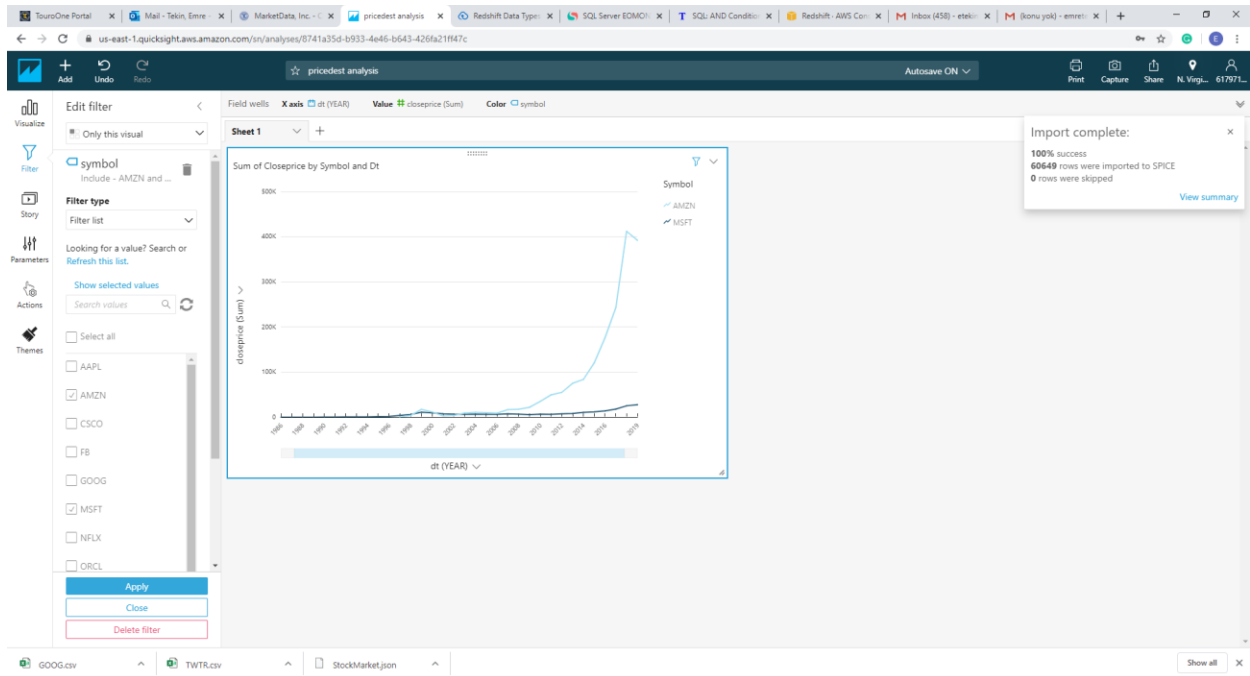
PRICE COMPARISON BETWEEN MICROSOFT AND AMAZON



After I connected my redshift cluster to Quicksight, I imported 'pricedest' table to visualize price comparison charts. This chart shows daily price comparison between amazon and Microsoft.

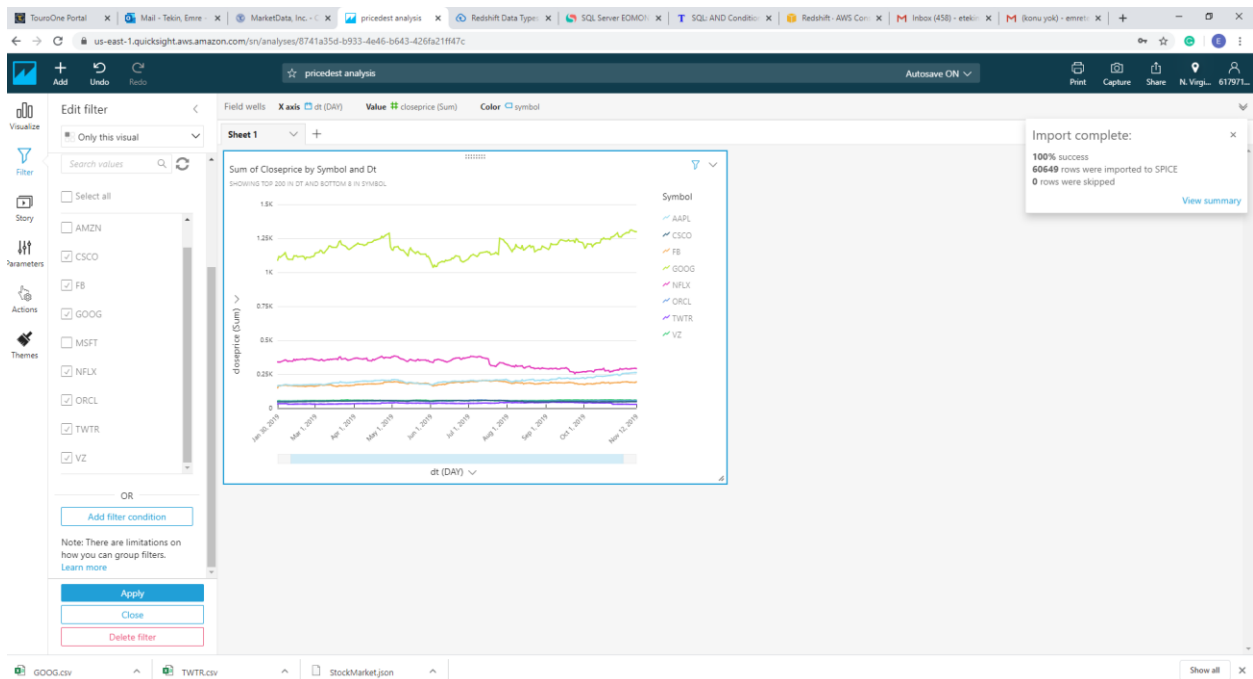


This chart shows by month.

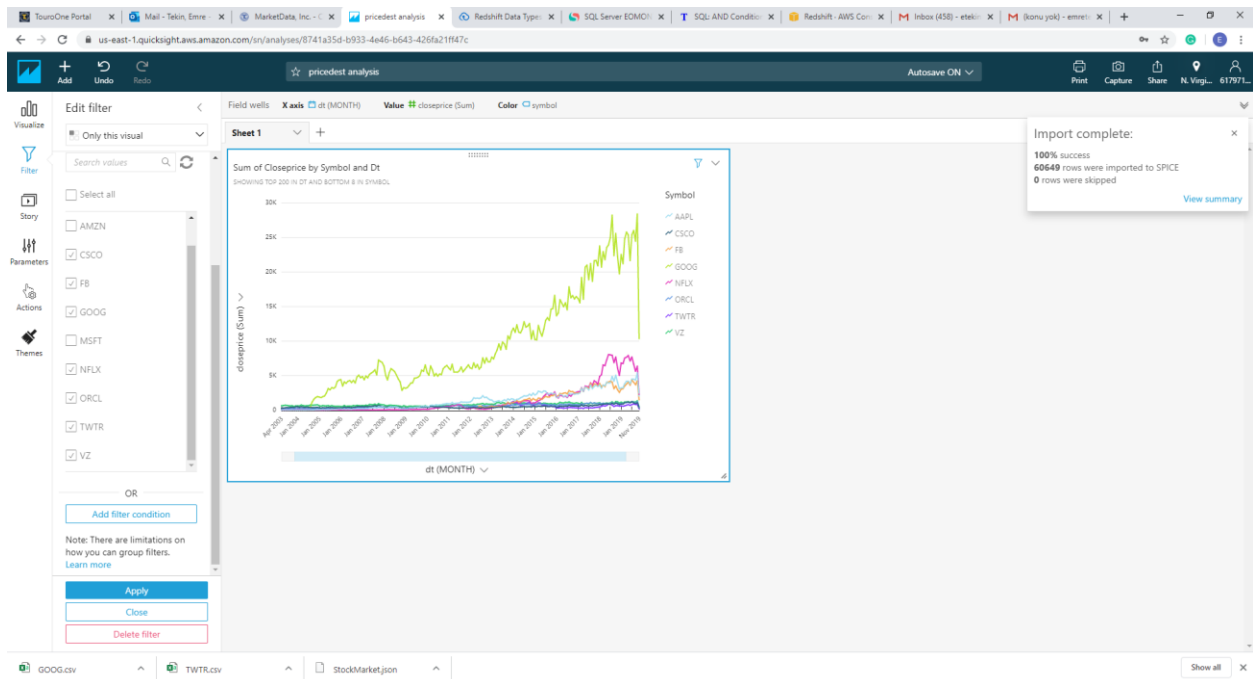


And, this chart shows by year.

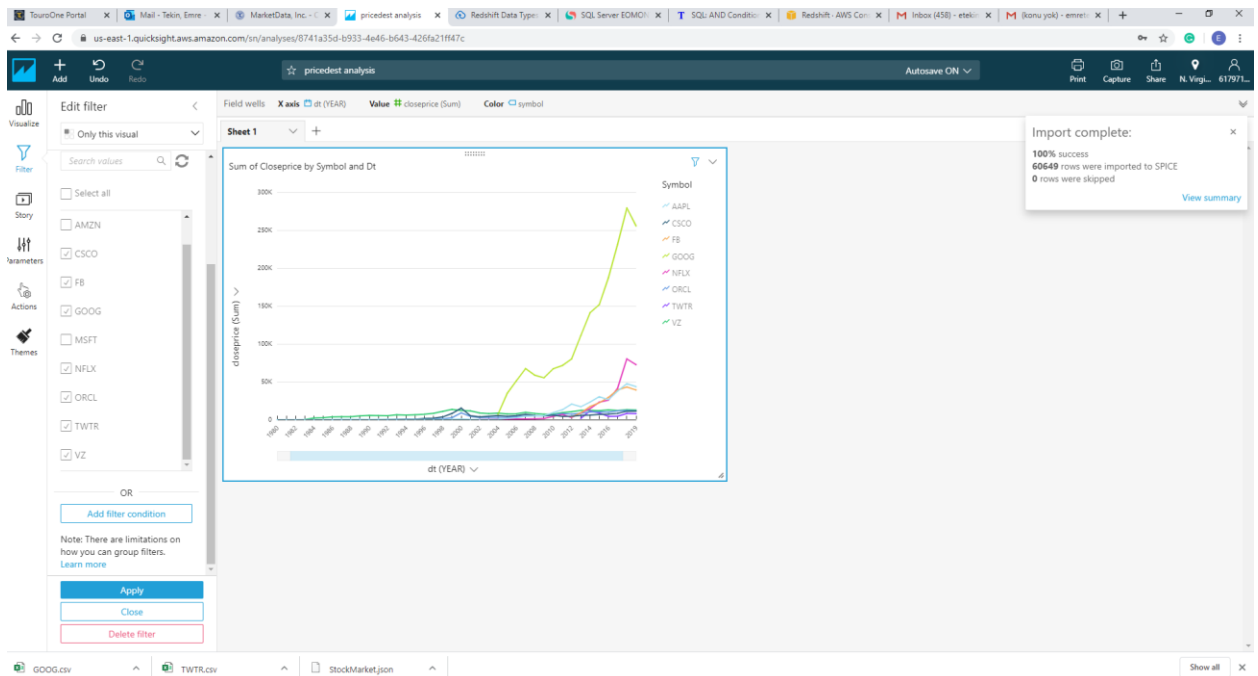
PRICE COMPARISON BETWEEN REST OF THE SYMBOLS



By Day,

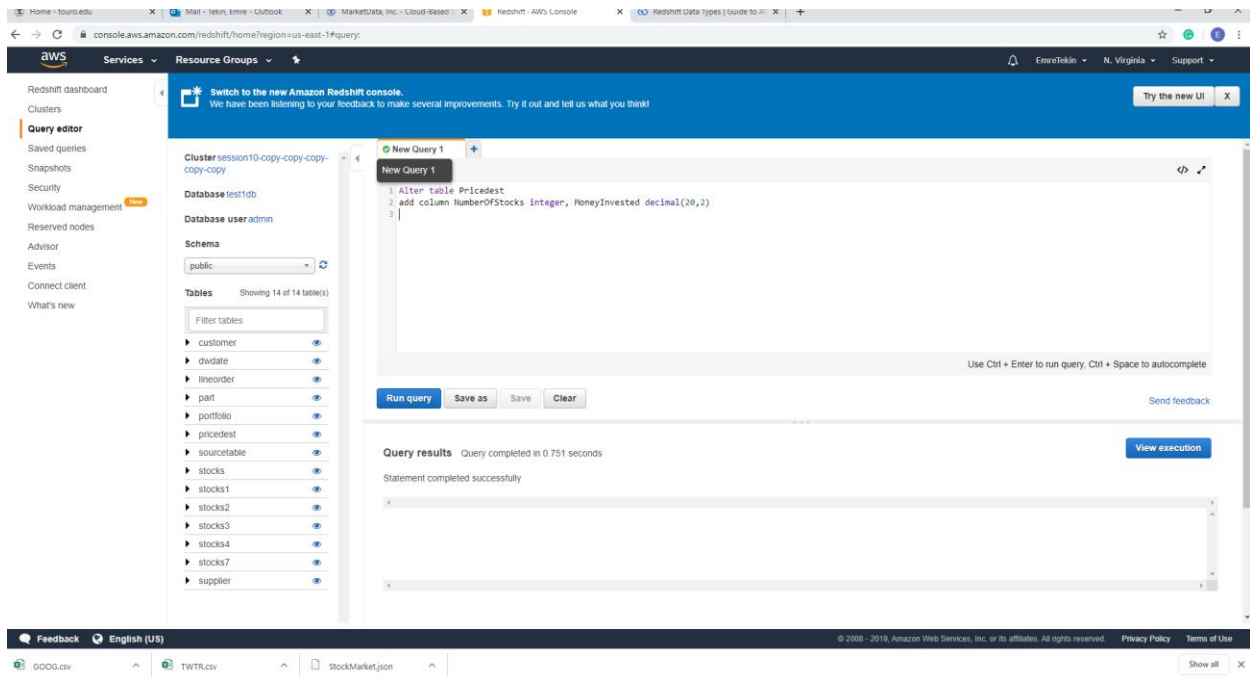


By Month,



By year.

PORTFOLIO CALCULATION FOR 2019

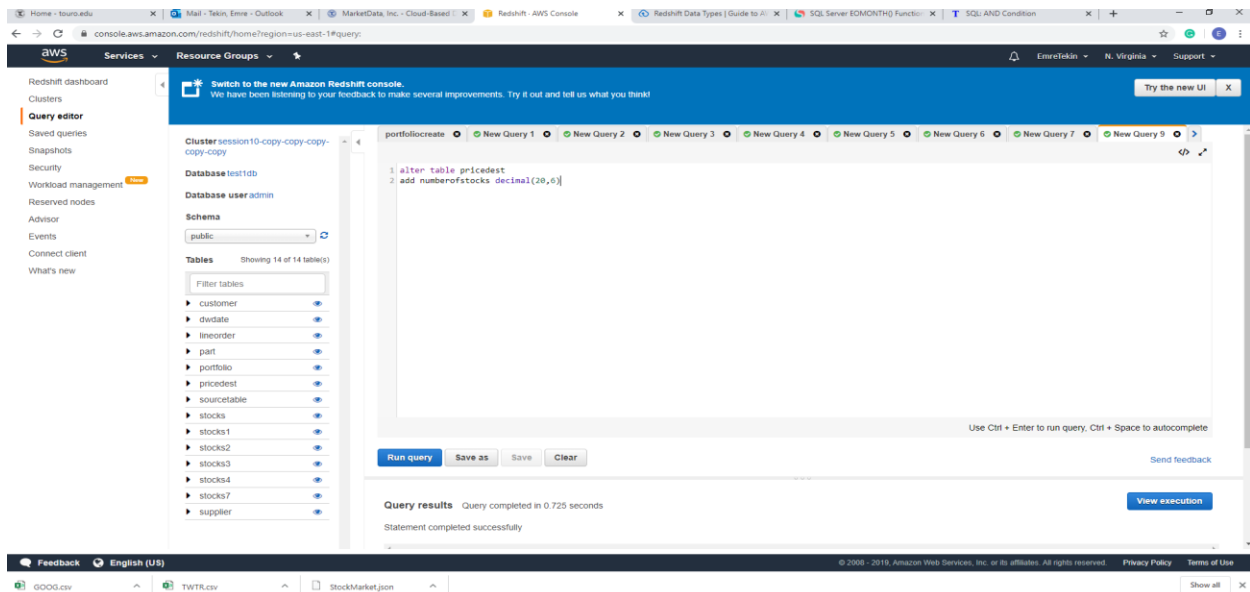


The screenshot shows the Amazon Redshift console interface. On the left, the 'Query editor' sidebar is visible, showing a list of tables including 'customer', 'dwdate', 'lineorder', 'part', 'portfolio', 'pricedest', 'sourcetable', 'stocks', 'stocks1', 'stocks2', 'stocks3', 'stocks4', 'stocks7', and 'supplier'. The main area displays a 'New Query 1' editor with the following SQL code:

```
1 Alter table Pricedest
2 add column NumberOfStocks integer, MoneyInvested decimal(20,2)
3
```

Below the query editor, the 'Query results' section shows the query completed in 0.751 seconds with the message 'Statement completed successfully'. The bottom of the console shows a file explorer with 'GOOG.csv', 'TWTR.csv', and 'StockMarket.json'.

I have added “numberofstocks” and “moneyinvested” columns for the next steps



The screenshot shows the Amazon Redshift console interface. On the left, the 'Query editor' sidebar is visible, showing a list of tables including 'customer', 'dwdate', 'lineorder', 'part', 'portfolio', 'pricedest', 'sourcetable', 'stocks', 'stocks1', 'stocks2', 'stocks3', 'stocks4', 'stocks7', and 'supplier'. The main area displays a 'New Query 1' editor with the following SQL code:

```
1 alter table pricedest
2 add numberOfstocks decimal(20,6)
```

Below the query editor, the 'Query results' section shows the query completed in 0.725 seconds with the message 'Statement completed successfully'. The bottom of the console shows a file explorer with 'GOOG.csv', 'TWTR.csv', and 'StockMarket.json'.

I have dropped “numberofstocks” field and add it again as a decimal.

The screenshot shows the Amazon Redshift console interface. On the left, there's a sidebar with navigation options like 'Redshift dashboard', 'Clusters', 'Query editor', 'Saved queries', 'Snapshots', 'Security', 'Workload management', 'Reserved nodes', 'Advisor', 'Events', 'Connect client', and 'What's new'. The main area displays a 'New Query' editor with a SQL query that creates a table named 'Portfolio' with columns 'symbol', 'closeprice', 'numberofstocks', and 'moneyinvested'. The query uses data from the 'pricedest' table for the year 2019. Below the query editor, the 'Query results' section shows the execution status and a table of results with 10 rows of stock data.

symbol	closeprice	numberofstocks	moneyinvested
1 VZ	56.020000		
2 AMZN	1539.130005		
3 FB	135.679993		
4 NFLX	267.660004		
5 AAPL	157.919998		
6 CSCO	42.950001		
7 TWTR	28.089999		
8 GOOG	1045.849976		
9 MSFT	101.120003		
10 ORCL	45.220001		

I have created new portfolio table which is going to give me the close prices of each symbol and for the first day of 2019

The screenshot shows the Amazon Redshift console interface. On the left, there's a sidebar with navigation options like 'Redshift dashboard', 'Clusters', 'Query editor', 'Saved queries', 'Snapshots', 'Security', 'Workload management', 'Reserved nodes', 'Advisor', 'Events', 'Connect client', and 'What's new'. The main area displays a 'New Query' editor with a SQL query that updates the 'moneyinvested' field for each symbol in the 'Portfolio' table. The query uses a calculated percentage of 100,000 dollars for each symbol. Below the query editor, the 'Query results' section shows the execution status and a table of results with 10 rows of stock data.

symbol	closeprice	numberofstocks	moneyinvested
1 VZ	56.020000		
2 AMZN	1539.130005		
3 FB	135.679993		
4 NFLX	267.660004		
5 AAPL	157.919998		
6 CSCO	42.950001		
7 TWTR	28.089999		
8 GOOG	1045.849976		
9 MSFT	101.120003		
10 ORCL	45.220001		

I have calculated percentages of 100000 dollars, and I have updated "moneyinvested" field for each symbol in portfolio table.

The screenshot displays the AWS Redshift console interface. On the left, a navigation sidebar lists various management tools. The main area is divided into a left-hand pane for database metadata and a right-hand pane for query execution. The metadata pane shows the current cluster, database, user, and schema, along with a list of tables. The query editor on the right contains an SQL UPDATE statement. Below the editor, the 'Query results' section shows the execution status and time.

Navigation Sidebar:

- Redshift dashboard
- Clusters
- Query editor**
- Saved queries
- Snapshots
- Security
- Workload management
- Reserved nodes
- Advisor
- Events
- Connect client
- What's new

Database Metadata:

- Cluster: session10-copy-copy-copy-copy
- Database: test1db
- Database user: admin
- Schema: public
- Tables: Showing 14 of 14 table(s)
- Filter tables:
- customer
- dwdate
- lineorder
- part
- portfolio
- pricedest
- sourcetable
- stocks
- stocks1
- stocks2
- stocks3
- stocks4
- stocks7
- supplier

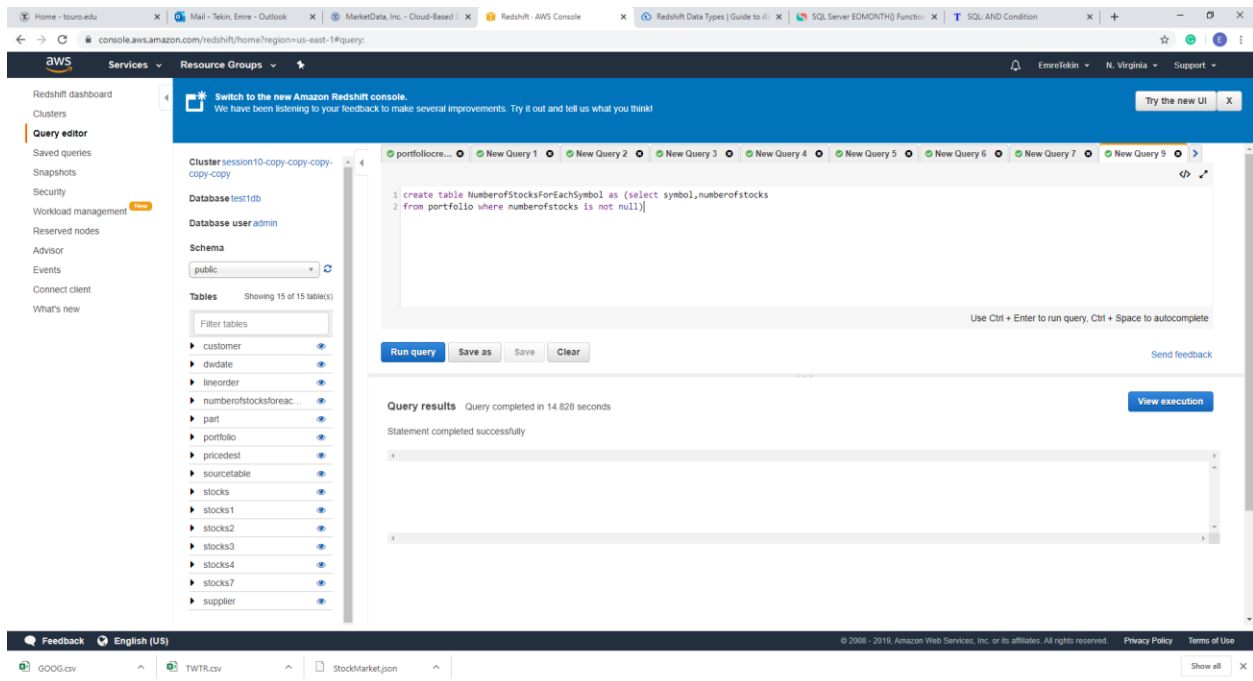
Query Editor:

```
1 update portfolio
2 set numberofstocks=moneyinvested/closeprice
3
```

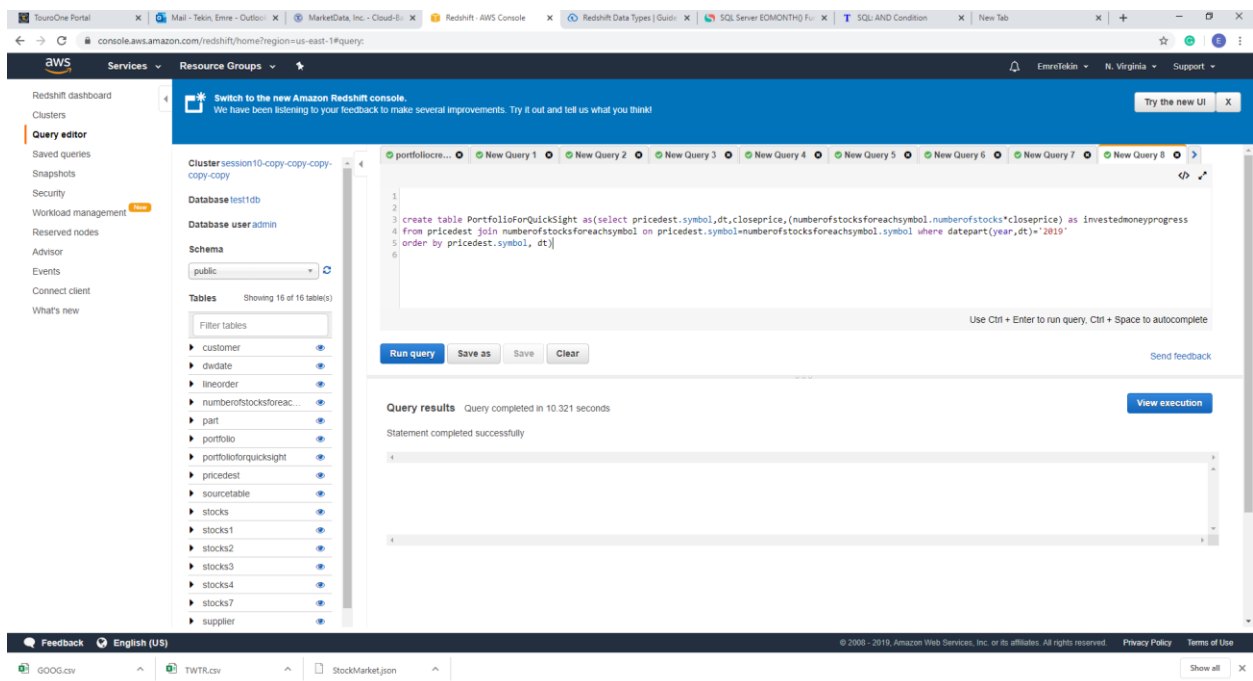
Query results: Query completed in 9.528 seconds
Statement completed successfully

I have updated “numberofstocks” field as calculated field (moneyinvested/closeprice=numberofstocks)

In the end my table gave me the number of stocks which is bought by investor at January 1, 2019 for each symbol.



I have created new table named "NumberofstocksForEachSymbol" and I had only two fields in this table which gives me the number of stocks which is bought by investor at January 1 2019 for each symbol.



Finally I have created my last table which is "PorfolioForQuickSight" by joining "pricedest" and "NumberofstocksForEachSymbol" tables. I have created new calculated field in this table by multiplying "numberofstocks" and "closeprice" fields to get updated invested money information for each day.

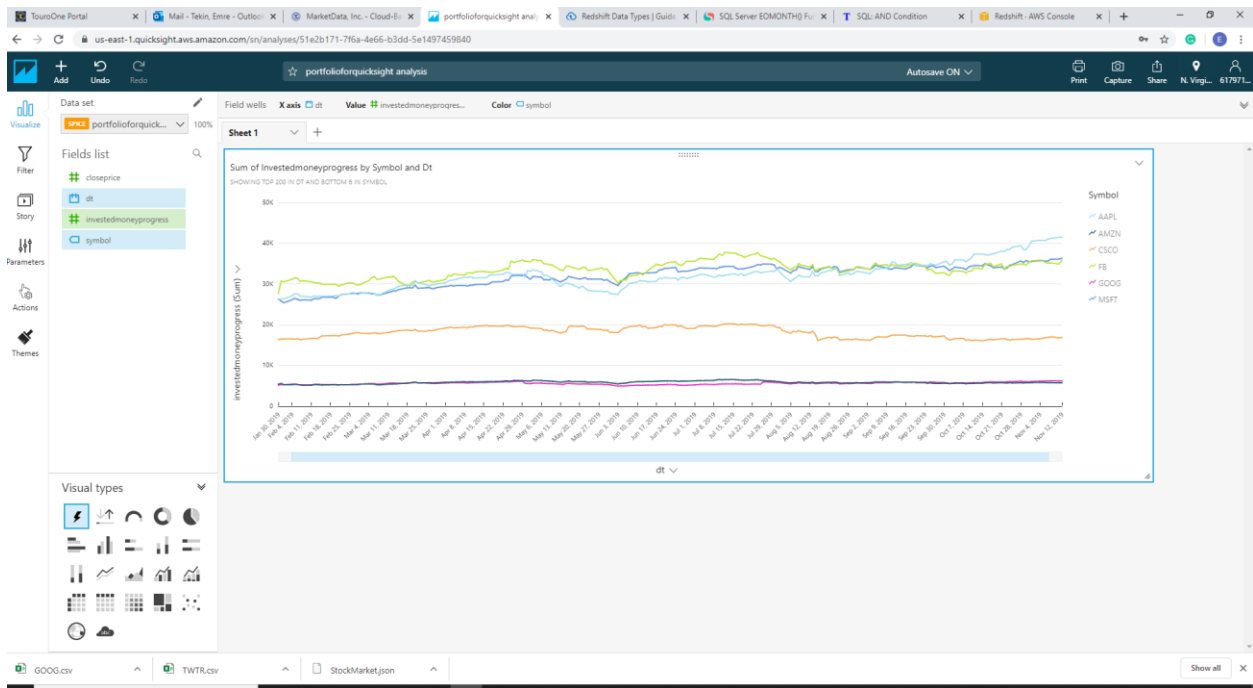
The screenshot shows the AWS Redshift console interface. On the left, there's a sidebar with navigation options like 'Query editor', 'Saved queries', 'Snapshots', 'Security', 'Workload management', 'Reserved nodes', 'Advisor', 'Events', 'Connect client', and 'What's new'. The main area displays a 'New Query 1' editor with a SQL query: `select * from public.portfolioforquicksight order by symbol,dt`. Below the editor, the 'Query results' section shows a table with columns: `symbol`, `dt`, `close`, `invested_money`, and `invested_money_delta`. The table contains 16 rows of data for AAPL stock from 2019-01-10 to 2019-01-24. The bottom of the console shows a taskbar with various applications like Google Chrome, TWTR.csv, and StockMarket.json.

symbol	dt	close	invested_money	invested_money_delta
AAPL	2019-01-10	153.800003	24347.771797724018	
AAPL	2019-01-11	152.289993	24108.725125583958	
AAPL	2019-01-14	150.000000	23746.200900000000	
AAPL	2019-01-15	153.070007	24232.207586576042	
AAPL	2019-01-16	154.940002	24520.242768256012	
AAPL	2019-01-17	155.860001	24673.805973460006	
AAPL	2019-01-18	156.620007	24825.86269076042	
AAPL	2019-01-22	153.300003	24268.617794724018	
AAPL	2019-01-23	153.919998	24366.767966903988	
AAPL	2019-01-24	152.699997	24173.632041275982	

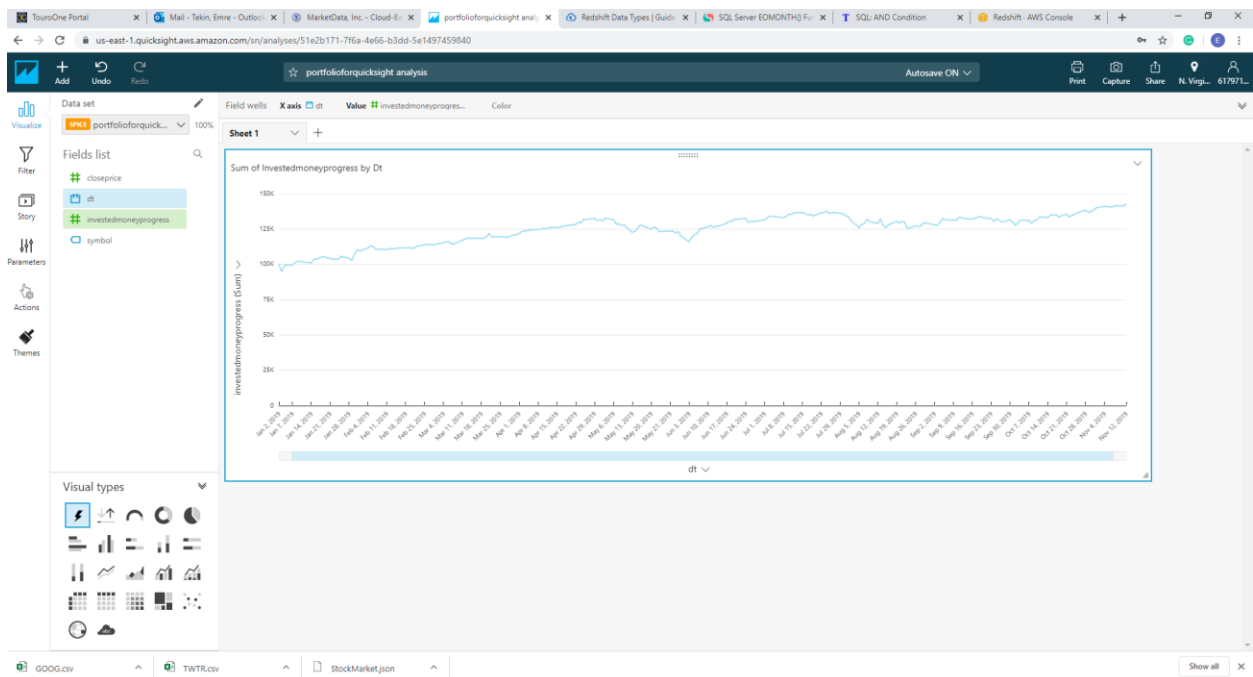
The table has records for close prices of each symbol for each day of 2019 and invested money field gets updates every day.

The screenshot shows the AWS QuickSight console. A 'New Redshift data source' dialog box is open, displaying the following fields: 'Data source name' (Final_Project1), 'Instance ID' (session10-copy-copy-copy-copy-copy), 'Connection type' (Public network), 'Database name' (test1db), 'Username' (admin), and 'Password' (masked). There are 'Validate connection' and 'Create data source' buttons. The background shows a grid of data sources including RDS, Redshift, Aurora, Snowflake, AWS IoT Analytics, GitHub, Athena, PostgreSQL, Spark, Twitter, Jira, ServiceNow, Adobe Analytics, and others. The bottom of the console shows a taskbar with various applications like Google Chrome, TWTR.csv, and StockMarket.json.

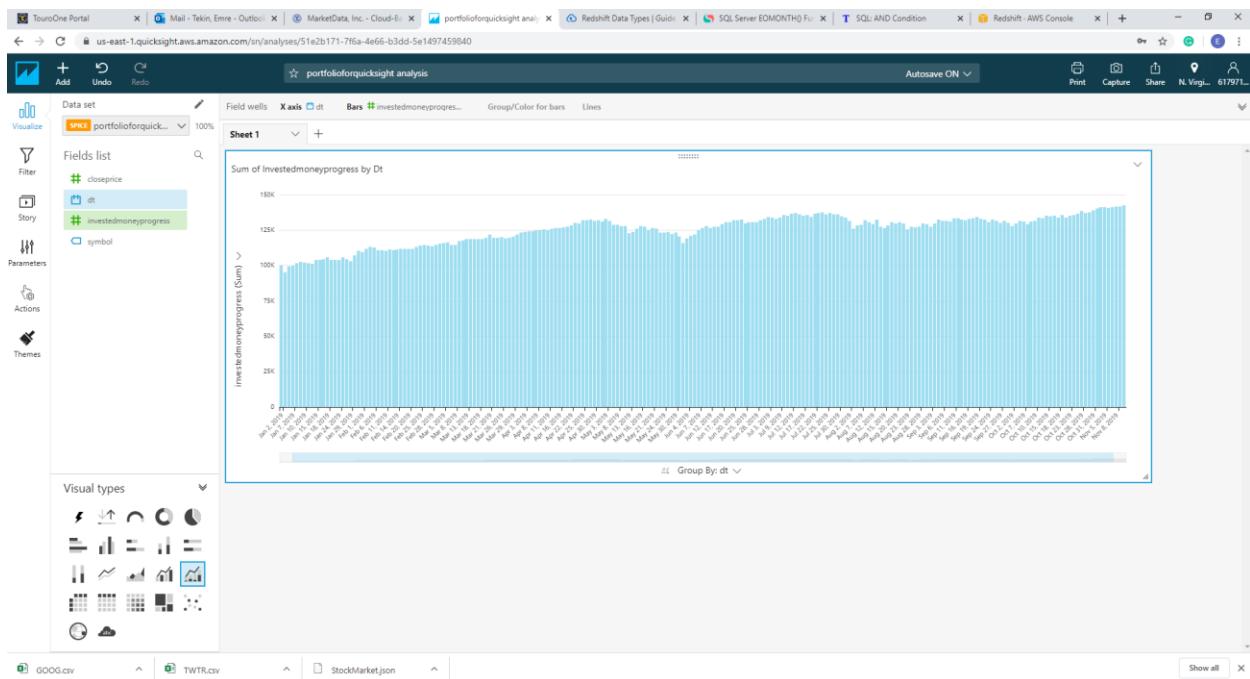
I have connected my redshift cluster to Quicksight.



This chart shows portfolio change for each symbol during 2019.



When we remove symbol from color tab, it shows total investment change for all companies during 2019.



Another type of chart for same information.

The screenshot shows the Amazon QuickSight interface. The main visualization is a table titled "Sum of Investedmoneyprogress by Dt". The table has two columns: "dt" (date) and "investedmoneyprogress" (numeric values). The data is grouped by "dt" (DAY). The table displays data for dates from Jan 2, 2019, to Jan 23, 2019. The "investedmoneyprogress" values range from approximately 94,938 to 103,683. The interface includes a left sidebar with navigation options like Visualize, Filter, Story, Parameters, Actions, and Themes. The top bar shows the "portfolioforquicksight analysis" and "Autosave ON". The bottom status bar shows data sources: GOOG.csv, TWTR.csv, and StockMarket.json.

dt	investedmoneyprogress
Jan 2, 2019	99,999.9988
Jan 3, 2019	94,938.9388
Jan 4, 2019	99,315.4297
Jan 7, 2019	99,579.7574
Jan 8, 2019	101,282.5058
Jan 9, 2019	102,282.1011
Jan 10, 2019	102,129.4651
Jan 11, 2019	101,592.5515
Jan 14, 2019	101,104.1682
Jan 15, 2019	103,602.3125
Jan 16, 2019	103,757.2781
Jan 17, 2019	104,386.5811
Jan 18, 2019	105,588.2872
Jan 22, 2019	103,646.1142
Jan 23, 2019	103,683.5203

The screenshot shows the Amazon QuickSight interface with a different date range for the table visualization. The table is titled "Sum of Investedmoneyprogress by Dt". The columns are "dt" and "investedmoneyprogress". The data is grouped by "dt" (DAY). The table displays data for dates from Oct 23, 2019, to Nov 12, 2019. The "investedmoneyprogress" values range from approximately 134,902 to 142,541. The interface includes a left sidebar with navigation options like Visualize, Filter, Story, Parameters, Actions, and Themes. The top bar shows the "portfolioforquicksight analysis" and "Autosave ON". The bottom status bar shows data sources: GOOG.csv, TWTR.csv, and StockMarket.json.

dt	investedmoneyprogress
Oct 23, 2019	134,902.8893
Oct 24, 2019	135,521.9509
Oct 25, 2019	136,598.1503
Oct 28, 2019	138,387.1774
Oct 29, 2019	136,969.373
Oct 30, 2019	137,370.9178
Oct 31, 2019	138,527.5945
Nov 1, 2019	140,040.3096
Nov 4, 2019	140,998.544
Nov 5, 2019	140,935.3788
Nov 6, 2019	140,501.2216
Nov 7, 2019	140,798.5045
Nov 8, 2019	141,556.2445
Nov 11, 2019	141,333.3996
Nov 12, 2019	142,541.2955

Head of the table and the tail of the table.