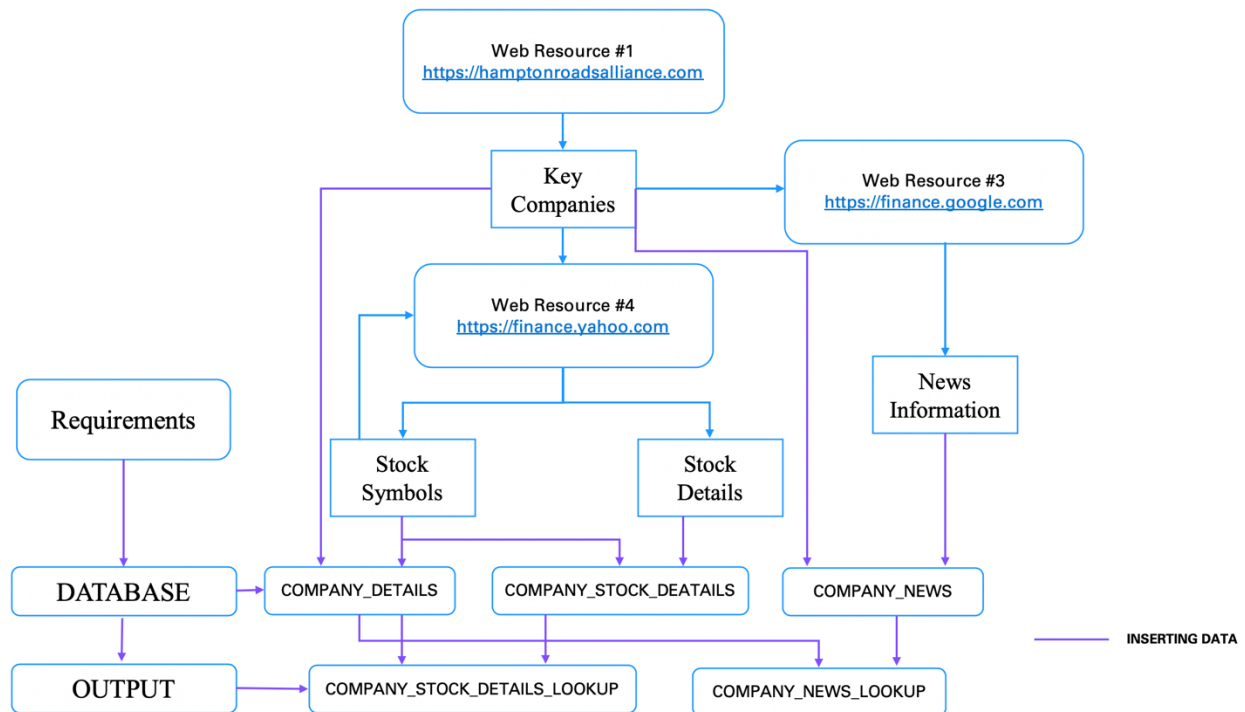


# Task Report

## Introduction:

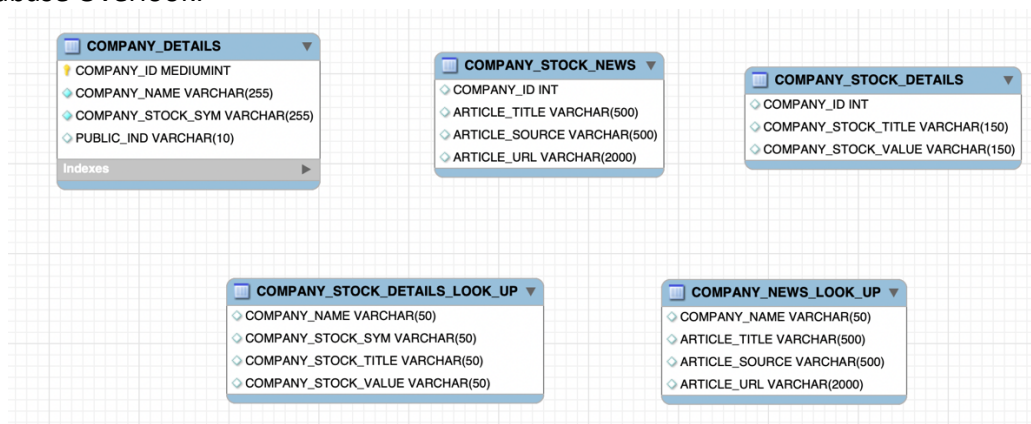
The goal is to obtain Stock Information and Latest News data from the given Web Resources on some key companies of Hampton Roads to track their overall performance.

## Architecture:

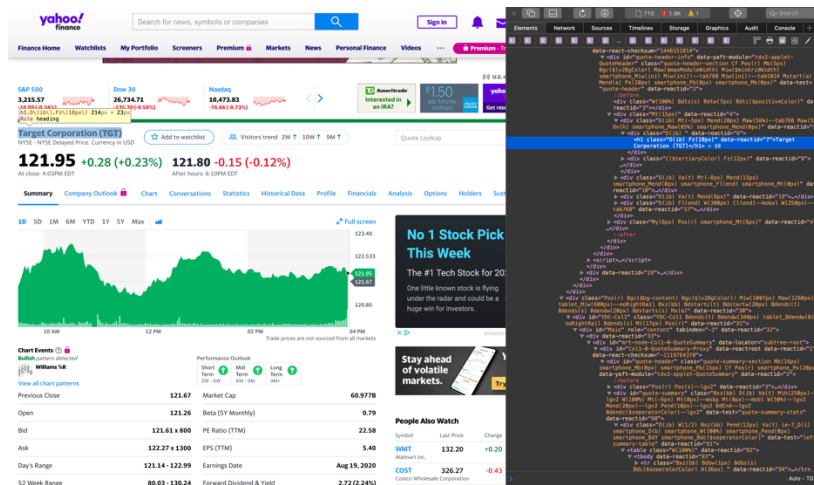


## Approach:

- Understood the Requirements
- Created the Database based on the requirements
- Database Overlook:



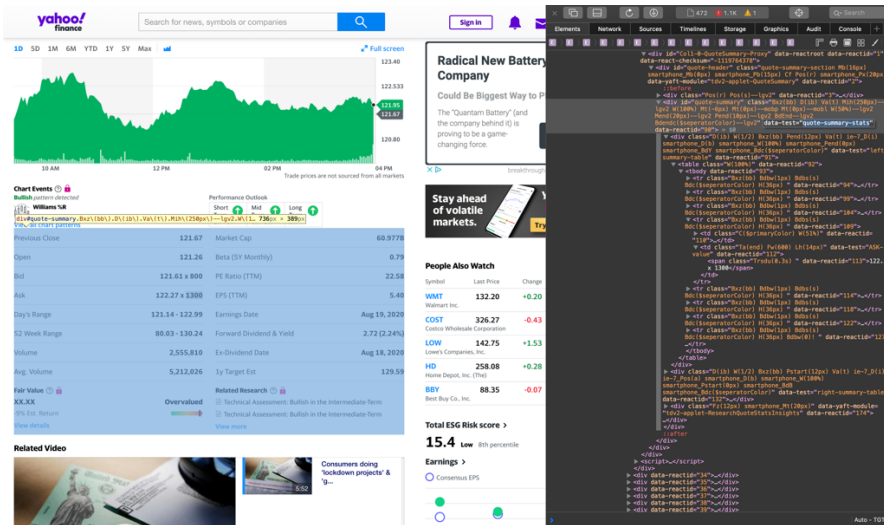
- By using Web Scrapping python package beautifulsoup obtained all key company names listed in Web Resource#1 ( <https://hamptonroadsalliance.com> )
- Using the key companies information, I obtained stock symbols from the Web Resource#4 ( <https://finance.yahoo.com> ) which was obtained by finding all the h1 tags with attribute “data-reactid : 7”



- Inserted the acquired data (Company Names and Company Stock Symbols) into Database table “COMPANY\_DETAILS”

COMPANY_ID	COMPANY_NAME	COMPANY_STOCK_SYM	PUBLIC_IND
1	Ace Hardware	ACES_AK	public
2	CMA CGM America, Inc.		private
3	Cost Plus, Inc.		private
4	CPFG LLC		private
5	Dollar Tree Distribution, Inc.		private
6	Monks USA Limited		private
7	Navy Exchange Services Command		private
8	QVC Bufile, Inc.		private
9	Targot Corporation	TGT	public
10	Zim American Integrated Shipping		private
11	Advanced Data Processing, Inc		private
12	Amphen Inc		private
13	Atlantic Bay Mortgage Group		private
14	Bank of America	BAC	public
15	Capital One	COF	public
16	Dollar Tree Management, Inc.		private
17	Fortyfour Enterprises		private
18	Geico		private
19	PIVA Group, Inc.		private
20	New York Times Shared Services		private
21	Bauer Compressors, Inc.		private
22	Cleco		private
23	General Dynamics	GD	public
24	Howmet Aerospace	HWM	public
25	Hamington Igard Industries		private
26	Libhart Mining Equipment Co.		private
27	Measurement Specialties, Inc.		private
28	STRL, Inc.		private
29	Sumitomo Drive Technologies		private
30	Arthur J. Gensler	BUD	public
31	Banknorth Insurance Corporation		private
32	High Liner Foods, Inc.		private
33	Kellogg Co. Kellogg	KDP	public
34	Kroger Company		private
35	La Tien Specialty Foods		private
36	Mexia Ltd		private
37	Massimo Zanetti Beverages, USA		private
38	Unilever / Lipton		private
39	Booze Allen Hamilton		private
40	CACI	CACI	public
41	General Dynamics	GD	public
42	Lockheed Martin	LMT	public
43	Northrop Grumman	NOG	public
44	Raytheon	RTX	public
45	SACO	SACO	private
46	Sano, Inc.		private
47	Veeva Systems		private
48	WR Systems		private

- Retrieved the Stock Symbols from the Database Table “COMPANY\_DETAILS” with a where clause to obtain only public companies. Then I used the obtained symbol as a parameter/attribute to get the URLs for all the companies by iterating it in a loop and parsed through the obtained URLs for stock details.
- Stock details are found by finding all the div tags with attribute “data-test : quote-summary-stats” then found all the tr tags and inner td tags which consists of required information.



- Inserted the acquired data (Company Stock Titles and Company Stock Values) into Database table “COMPANY\_STOCK\_DETAILS”

COMPANY_ID	COMPANY_STOCK_TITLE	COMPANY_STOCK_VALUE
1	Previous Close	1,680.00
1	Open	1,680.00
1	Bid	1,645.00 x 0
1	Ask	1,650.00 x 0
1	Day's Range	1,630.00 - 1,685.00
1	52 Week Range	970.00 - 1,890.00
1	Volume	10,489,400
1	Avg. Volume	14,724,053
1	Market Cap	28.243T
1	Beta (5Y Monthly)	0.70
1	PE Ratio (TTM)	27.37
1	EPS (TTM)	60.29
1	Earnings Date	Oct 29, 2015 - Nov 03, 2015
1	Forward Dividend & Yield	N/A (N/A)
1	Ex-Dividend Date	May 24, 2019
1	1y Target Est	1,588.20
9	Previous Close	121.67
9	Open	121.26
9	Bid	122.42 x 800
9	Ask	122.42 x 1300
9	Day's Range	121.15 - 122.99
9	52 Week Range	80.03 - 130.24
9	Volume	1,431,706
9	Avg. Volume	5,212,026
9	Market Cap	61.342B
9	Beta (5Y Monthly)	0.79
9	PE Ratio (TTM)	22.71
9	EPS (TTM)	5.40
9	Earnings Date	Aug 19, 2020
9	Forward Dividend & Yield	2.72 (2.24%)
9	Ex-Dividend Date	Aug 18, 2020
9	1y Target Est	129.59

- Retrieved all the company names from the database table “COMPANY\_DETAILS”. Then I used the obtained names to get the URLs for all the companies by iterating it in a loop and parsed through the obtained URLs for article titles, article source and article URL.
- Now Inserted the acquired data (Article Title, Article Source and Article URL) into Database table “COMPANY\_STOCK\_NEWS”

COMPANY_ID	ARTICLE_TITLE	ARTICLE_SOURCE	ARTICLE_URL
1	Driver crashes into Ace Hardware in Friday Har...	SanJuanIslander.com	http://sanjuanislander.com/news-article...
1	Perry Ace Hardware Finds New Home in Forme...	raccoonvalleyradio.com	https://www.raccoonvalleyradio.com/20...
1	Oltorf Homes seeking to build new subdivision i...	nwtimes.com	https://www.nwtimes.com/news/oltorf-h...
1	Ace Hardware relocating Tampa distribution cen...	LBM Journal	https://lbmjournals.com/ace-hardware-rel...
1	Finding the Best Grill with Ace Hardware I River...	WJXT News4JAX	https://www.news4jax.com/river-city-live...
1	Sales of Bugs Off® Pads Exceed Expectations I...	PRNewswire	https://www.prnewswire.com/news-rele...
1	Ace Hardware Indonesia: Relatively Resilient B...	Seeking Alpha	https://seekingalpha.com/article/435837...
1	Letter to the editor: Thanks to Georgetown Divid...	glgazette.com	https://www.glgazette.com/2020/07/13/...
1	Jobs, jobs, jobs at Tennes Ace Hardware in We...	washingtoncountyinsider.com	https://www.washingtoncountyinsider.co...
1	Ace Hardware trucker vindicated second time b...	Land Line Media	https://landline.media/ace-hardware-tru...
2	CMA CGM draws clear trans-Pacific service lines	FreightWaves	https://www.freightwaves.com/news/cm...
2	CMA CGM end of PSS from North Europe, Sca...	American Journal of Transp...	https://ajot.com/news/cma-cgm-end-of-...
2	CMA CGM PSS for Middle East / ISC to US and...	American Journal of Transp...	https://ajot.com/news/cma-cgm-pss-for-...
2	GLOBAL CONTAINER FLEET MARKET:GROW...	Jewish Life News	https://jewishlifeneews.com/uncategorize...
2	Container Deport Market: Global Industry Analy...	Cole of Duty	https://coledofduty.com/news/2020/07/14...
2	Tremendous Business Growth of Freight Forwa...	Owned	https://primefeed.in/news/475086/treme...
2	GLOBAL Medical Freight Trucking Industry MA...	Daily Research Chronicles	https://dailyresearchchronicles.com/202...
2	Covid-19 Outbreak: Refrigerated Transport Mar...	3rd Watch News	https://3rnews.org/uncategorised/2717...
2	Key Players Analysis of Refrigerated Sea Trans...	Daily Research Chronicles	https://dailyresearchchronicles.com/202...
2	Container Fleet Market Is Thriving Worldwide I...	Cole of Duty	https://coledofduty.com/news/2020/06/17...

- Created a table “COMPANY\_STOCK\_DETAILS\_LOOKUP” in the Database by joining “COMPANY\_DETAILS” and “COMPANY\_STOCK\_DETAILS”.

COMPANY_NAME	COMPANY_STOCK_SYM	COMPANY_STOCK_TITLE	COMPANY_STOCK_VALUE
Ace Hardware	ACES.JK	Bid	1,645.00 x 0
Ace Hardware	ACES.JK	Ask	1,650.00 x 0
Ace Hardware	ACES.JK	Day's Range	1,630.00 - 1,685.00
Ace Hardware	ACES.JK	52 Week Range	970.00 - 1,890.00
Ace Hardware	ACES.JK	Volume	10,489,400
Ace Hardware	ACES.JK	Avg. Volume	14,724,053
Ace Hardware	ACES.JK	Market Cap	28.243T
Ace Hardware	ACES.JK	Beta (5Y Monthly)	0.70
Ace Hardware	ACES.JK	PE Ratio (TTM)	27.37
Ace Hardware	ACES.JK	EPS (TTM)	60.29
Ace Hardware	ACES.JK	Earnings Date	Oct 29, 2015 - Nov 03, 2015
Ace Hardware	ACES.JK	Forward Dividend & Yield	N/A (N/A)
Ace Hardware	ACES.JK	Ex-Dividend Date	May 24, 2019
Ace Hardware	ACES.JK	1y Target Est	1,588.20
Target Corporation	TGT	Previous Close	121.67
Target Corporation	TGT	Open	121.26
Target Corporation	TGT	Bid	122.42 x 800
Target Corporation	TGT	Ask	122.42 x 1300
Target Corporation	TGT	Day's Range	121.15 - 122.99
Target Corporation	TGT	52 Week Range	80.03 - 130.24
Target Corporation	TGT	Volume	1,431,706
Target Corporation	TGT	Avg. Volume	5,212,026
Target Corporation	TGT	Market Cap	61.342B
Target Corporation	TGT	Beta (5Y Monthly)	0.79
Target Corporation	TGT	PE Ratio (TTM)	22.71

- Created one more table “COMPANY\_NEWS\_LOOKUP” in the Database by joining “COMPANY\_DETAILS” and “COMPANY\_STOCK\_NEWS”.



Note:

CompanySymbol.ipynb

StockDetails.ipynb

News.ipynb

Stocks\_Lookup.ipynb

News\_Lookup.ipynb

– Code for obtaining Company names and Stock Symbols

– Code for obtaining Stock Details

– Code for obtaining NEWS Articles

– Code for Retrieving the stock details of a company

– Code for Retrieving the news regarding a company