

VISUALIZATION SCREENSHOTS

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EXTERNSHIP PROJECT – DATA ANALYTICS

The upcoming screenshots relates to the various visualizations constructed from the different aspect combinations.

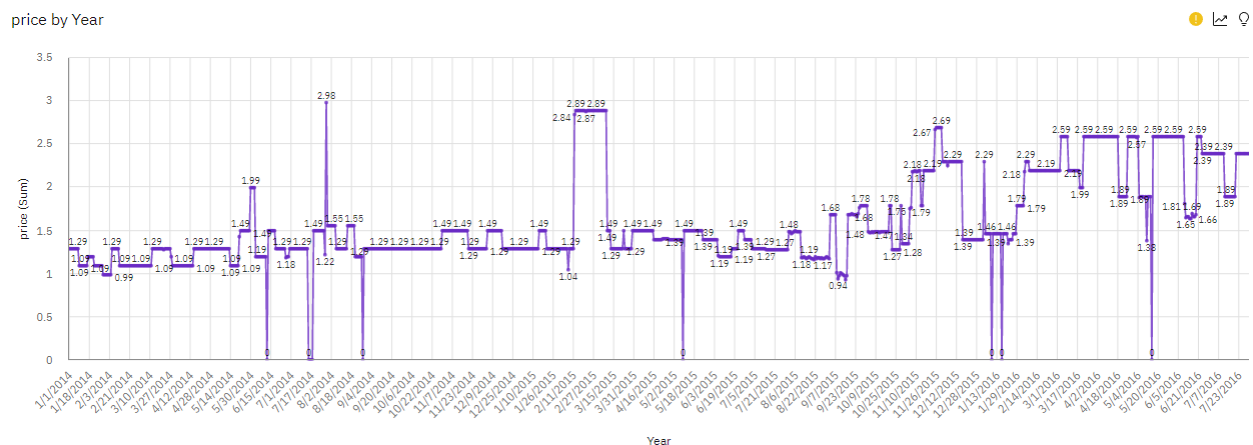


Figure 1: Year wise Price using Line Graph

- A line graph is constructed between the Year and Price factors. The year being the independent factor is taken on the X axis while the Price being the dependent factor is taken on the Y axis.
- The properties of the constructed graph are then tweaked by performing some operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.

The chart displays the stock price of the company from 1994 to 2023. The y-axis represents the stock price in sum, ranging from 0 to 8,000. The x-axis represents the year, with labels every 3 months from 1/1/94 to 12/31/23. The stock price starts at approximately 4,972 in 1994, peaks at 7,228 in 1995, and then declines to around 1,928 in 1996. It then fluctuates between 1,000 and 3,000 until 2000. After 2000, the stock price shows a general upward trend with several peaks and troughs, reaching a high of 5,946 in 2007, followed by a sharp decline and then a recovery to around 4,095 by 2023.

Year	Stock Price (sum)
1/1/94	4972
1/1/95	7078
1/1/96	1928
1/1/97	2514
1/1/98	2643
1/1/99	2217
1/1/00	1954
1/1/01	1831
1/1/02	1708
1/1/03	1268
1/1/04	1285
1/1/05	1484
1/1/06	3841
1/1/07	3317
1/1/08	2777
1/1/09	1315
1/1/10	2143
1/1/11	2076
1/1/12	2143
1/1/13	2532
1/1/14	2077
1/1/15	1911
1/1/16	1448
1/1/17	946
1/1/18	176
1/1/19	2516
1/1/20	176
1/1/21	2229
1/1/22	1081
1/1/23	1299
1/1/24	1063
1/1/25	1678
1/1/26	1423
1/1/27	1176
1/1/28	1083
1/1/29	1902
1/1/30	1551
1/1/31	1285
1/1/32	1631
1/1/33	1394
1/1/34	1665
1/1/35	1211
1/1/36	1912
1/1/37	1834
1/1/38	1867
1/1/39	1451
1/1/40	1718
1/1/41	1855
1/1/42	1248
1/1/43	1332
1/1/44	1162
1/1/45	181
1/1/46	1076
1/1/47	1743
1/1/48	1719
1/1/49	2388
1/1/50	2242
1/1/51	2234
1/1/52	2738
1/1/53	3815
1/1/54	3379
1/1/55	3642
1/1/56	4095
1/1/57	4095
1/1/58	4095
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1/1/35	4095
1/1/36	4095
1/1/37	4095
1/1/38	4095
1/1/39	4095
1/1/40	

- A line graph is constructed between the Year and Stock factors. The year being the independent factor is taken on the X axis while the Stock being the dependent factor is taken on the Y axis.
- The properties of the constructed graph are then tweaked by performing some operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.

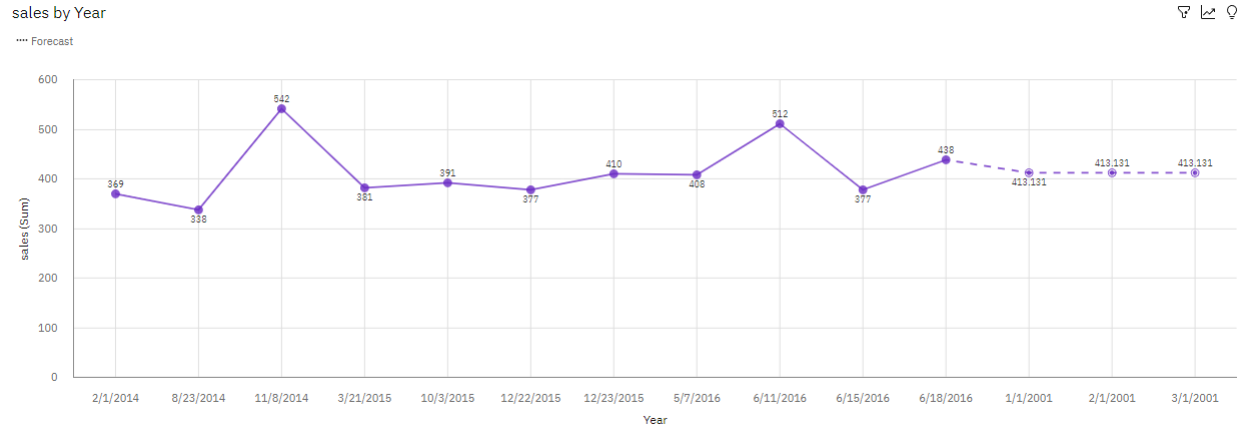


Figure 3: Top 10 Sales by Year using Line Graph

- A line graph is constructed between the Year and Sales factors. The year being the independent factor is taken on the X axis while the Sale being the dependent factor is taken on the Y axis.
- The obtained line graph is then subjected to filtering operations. The graph is modified to display only the top 10 sales (along with the values) that happened in the past.
- The properties of the constructed graph are then tweaked further by performing some more operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.

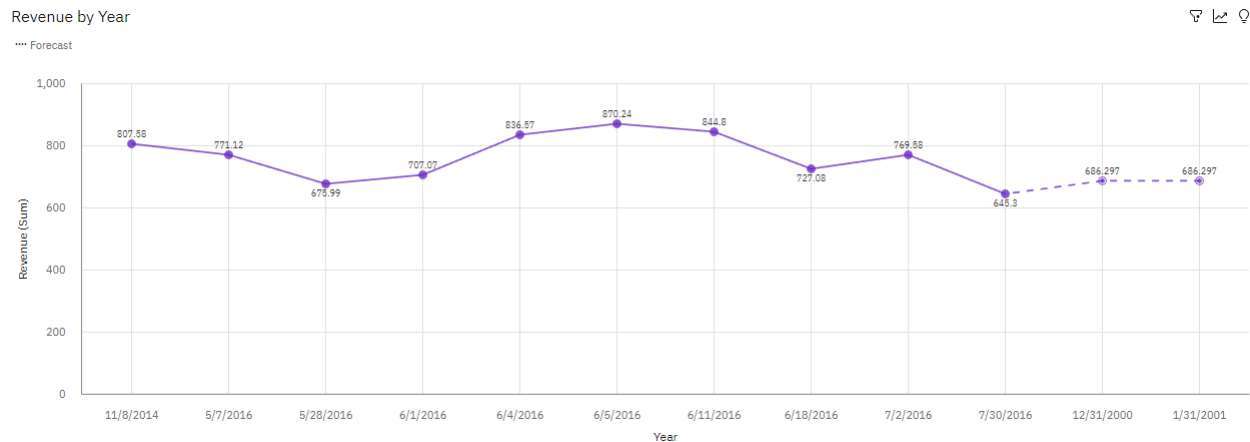


Figure 4: Top 10 Revenue by Year using Line Graph

- A line graph is constructed between the Year and Revenue factors. The year being the independent factor is taken on the X axis while the Revenue being the dependent factor is taken on the Y axis.
- The obtained line graph is then subjected to filtering operations. The graph is modified to display only the top 10 revenues (along with the values) generated in the past.
- The properties of the constructed graph are then tweaked further by performing some more operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.



Figure 5: Monthly Stock using Heat Map

- Heat Map visualization is constructed for Monthly Stocks using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.

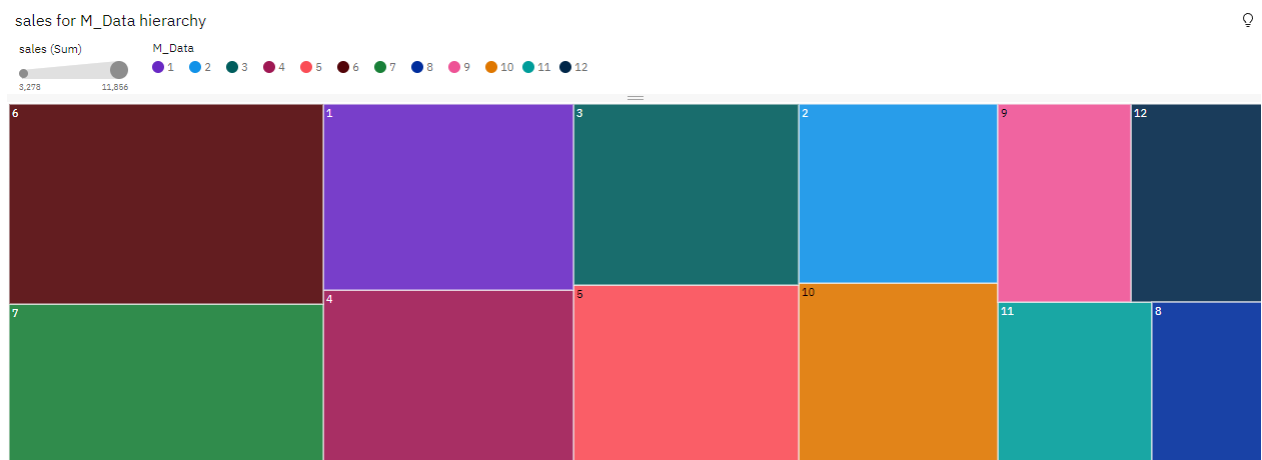


Figure 6: Monthly Sales using Tree Map

- Tree Map visualization is constructed for Monthly Sales using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.

Revenue by M_Data

M_Data

1 2 3 4 5 6 7 8 9 10 11 12

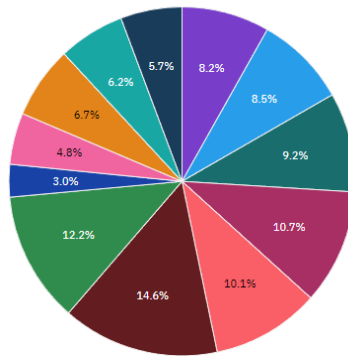


Figure 7: Monthly Revenue using Pie Chart

- A Pie Chart was developed for the Monthly Revenue data using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.

Revenue

sales

\$139K

Revenue

84.8K

sales

stock

price

1.51M

stock

\$1.49K

price

Figure 8: Summary Cards of Total Revenue, Sales, Stock, Price

- Summary Cards was developed for Total Revenue, Sales, Stock and Price data using the IBM Cognos Analytics tool.
- These Cards display the exact values in the form of cards. Modifications to the way of representing certain values were made in order to make it a better way of presenting the data.

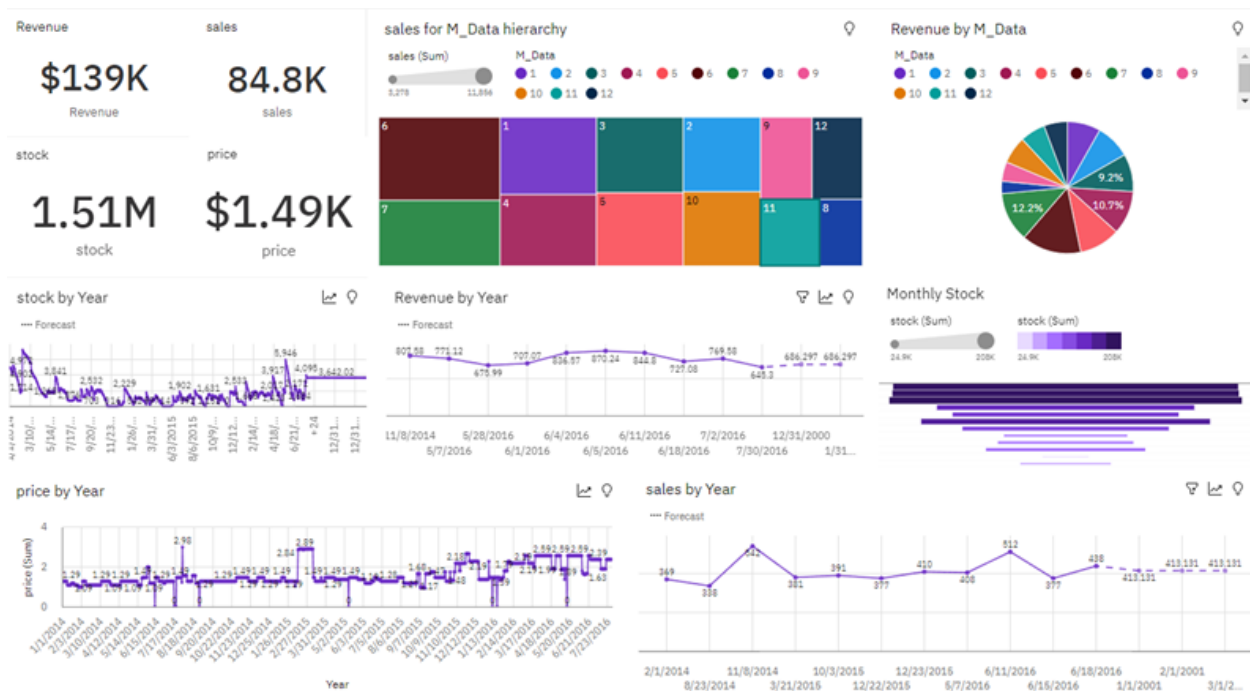


Figure 9: Dashboard

We finally combine all the visualizations into a single dashboard for better viewing. The dashboard is arranged in such a way, that it can provide all the necessary information in a single glance.