FINANCIAL (STOCKS) ANALYTICS

TOP 500 COMPANIES OF INDIA

OBJECTIVES

We have to answer various business questions like -

- Top Companies by Market Cap (Large Cap, Mid Cap and Small Cap)

- 2. Total and Company-wise Market Cap

- 3. Top Performing Sectors by Market Cap

- 4. Average P/E Ratio by Sectors

- 5. Top & Bottom Companies By EPS

- 6. Overvalued companies (High P/E ratio)

- 7. Company-wise details like EPS, Market Cap, P/B, P/E, etc.

- 8. Highly volatile companies

- 9. Less volatile companies

- 10. Companies by Dividend Yield

- 11. Companies by EBITDA

- 12. Annual Sales of Companies

BENEFITS

➢ Better Decision-Making about marketing strategies, pricing, inventory management, and expansion plans.

➢ Improved Efficiency in sales processes, reduced costs, and increased productivity.

➢ Competitive Advantage, helps them to increase market share.

➢ Better Customer Insights for higher customer satisfaction and increased customer loyalty.

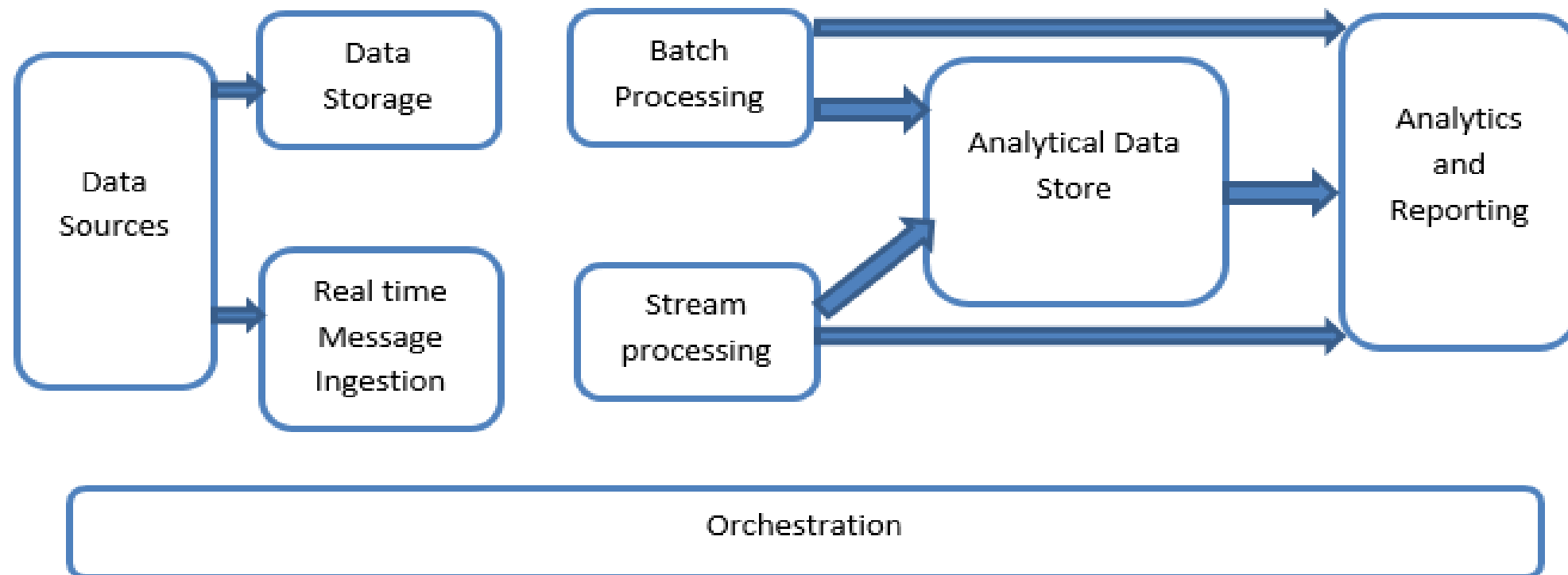➢ Increased Revenue and profitability over time.

DATA SHARING AGREEMENT

- Sample file name (constituents-financials)

- Number of Columns: 14

- Number of Rows: 505

- Column Names: Symbol Name, Sector, Price, Price/Earnings, Dividend Yield, Earnings/Share, 52 Week Low, 52 Week High, Market Cap, EBITDA, Price/Sales, Price/Book, SEC Filings.

TECH-STACK USED

ARCHITECTURE

DATA VALIDATION

- Name Validation – Validation of files as per the DSA.

- Number of Columns- Validation of number of columns present in the file, if it doesn't match our criteria move it to particular column.

- Name of Column- The name of the column is validated and should be same as given schema file. If not then adjust accordingly.

- Data type of column- Data type is given in the schema file. It is validated when we insert the files into Database. If the datatype is wrong, then the file is moved to "Bad_Data_Folder".

- Null Values in Columns- If any of the columns in a file have all the values as NULL or missing, we discard such a file and move it to "Bad_Data_Folder"

DATA CLEANING

- Columns Remove:- 'Symbol' and 'SEC Fillings' columns are removed as they have no use in our analysis.

- Columns Add:- 'Annual Sales' column is added as we have analysis related to it.

- Renaming Columns:- 'Name' to 'Company Name' and 'Price' to 'Market Price'

- Checking and removing Null values in columns

- Saving cleaned file as 'Cleaned_finance_data.csv'

OUTCOMES

We performed data pre-processing techniques on it followed by analysing and found following outcomes-

- Dashboard shows which business or companies should be preferred and which are risky.

- 'Energy' and 'Information Technology' sectors have more P/E ratio so better.

- 'Information Technology', 'Health care' and 'Financials' sectors share more than 50% of market capitalisation

- 'Salesforce.com' is most over-valued company.

- 'CenturyLink Inc' provides maximum dividend to customers.

- 'Facebook' and Google's parent 'Alphabet Inc' generates maximum revenue of all.