**Problem Statement**

You/Your Employer is launching a product for the Finance Industry and is starting with the Stock market analytics platform for the initial pilot.

The users of your product include:

* Institutional Investors
* Retail Investors
* Think Tanks

The stock market data is sourced from Stock Market Data providers. There are three types of feeds:

* Realtime feed - This mainly involves news, Price movements, etc
* EOD feed - This will include a variety of data about stocks like shareholding pattern, Promoter information every day
* One time data feed - This is the historical EOD feed for the last 20 years

Over time multiple stock market's data will be onboarded to the platform.

The actual product is a platform available as a web app that showcases these data and provides several charts. A full-text search feature on the entire data will be supported as well.

The data is also made available to the internal data scientists team which will produce special reports to be published on the web app.

A user can also request a particular analysis from the data science team which will provide the report after a fixed number of days for analysis.

**Your task is to come up with the system architecture with Softwares / Cloud components to be used for this product including:**

* Data ingestion and Pipelines
* Different databases
* Methodology for data scientists to access data and analyze
* Methodology how web app backend APIs will access data
* SLAs supported
* Constructs for handling issues with data and data contract
* Disaster Recovery