

Portfolio Analyzer - Product Specification

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Document Link: [Portfolio Analyzer - Product Specification](#)

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Requirement

There is no unified platform which can provide an individual a holistic view of their investment with multiple brokers spanning across geographies.

This product will create a unified interface which will provide a holistic view along with portfolio and risk analytics of an individual's portfolio across asset classes, geographies and brokers.

Features

1. The product will be able to interpret the holding statements of various brokers (CSV files)
2. The product will be able to fetch data from API keys provided by users to get the latest holdings from each broker
3. The product will be able to create a consolidated view of all holdings statement
4. The product will be able to fetch EoD price for each asset from each market and provide an updated daily PNL
5. The product will be able to provide portfolio and risk metrics as follows:
 - a. Portfolio Metrics
 - i. Portfolio Return
 - ii. Portfolio Risk (VaR)
 - iii. Asset return correlation
 - iv. Alpha and Beta return separation based on a benchmark asset
6. The product will provide a downloadable report of the consolidated portfolio
7. The product will allow a user to create an account and add broker API keys or holdings statement and save a user's portfolio information with a knowledge timestamp
8. The product will have a web UI, mobile UI and provide APIs to access the data
9. The product will allow a user to tag or bundle investments so it is easier to track a set of investments PNL
10. The product will allow a user to separate investments by strategy, this would be valuable for active investors testing multiple strategies
11. Output report will consist of the following datapoints
 - a. SPN
 - b. Asset Class
 - c. Tag/Bundle
 - d. Strategy
 - e. Financial Component
 - f. Day to day
 - g. Week to day
 - h. Month to day
 - i. Year to day
 - j. Life to day
 - k. Trade Date
 - l. Execution Date
 - m. Region
 - n. Market Cap
 - o. Market Value - SPN level granularity
 - p. Total Cost - SPN level granularity
 - q. Split of Alpha returns and Beta returns
 - r. Taxlots

User Stories

User Story #	User Story	Phase 1
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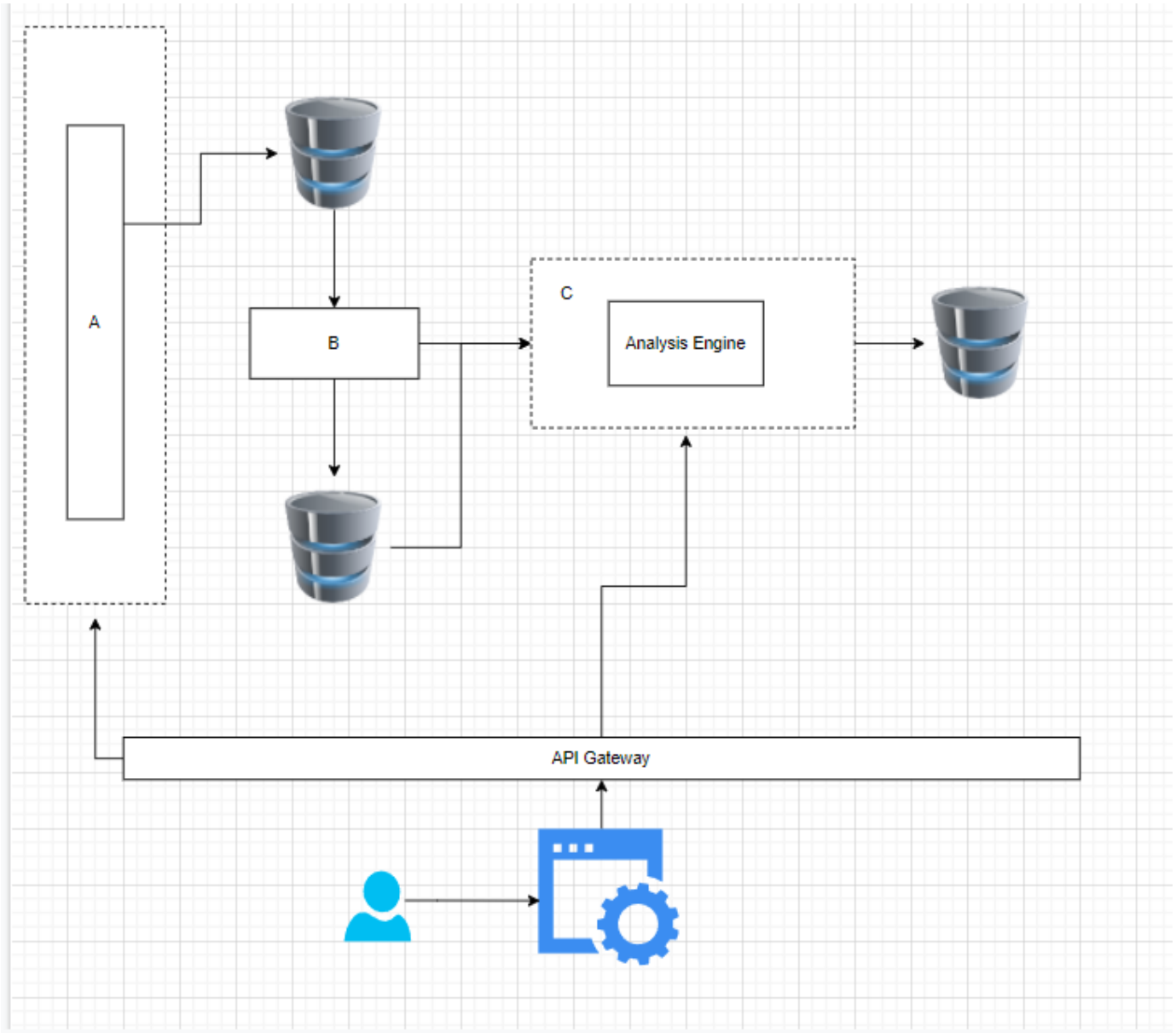
1	A user is able to create an account	1
2	A user should be able to add broker API Keys or upload a holdings statement (CSV file) from any broker	1
3	A user is able to download the output report	1
4	A user has the option to filter investments based on broker, region, strategy, bundle and other variable data points	1
5	A user should be able to see the difference of alpha and beta returns of their investment along with other portfolio metrics	1
6	A user should be able see the latest daily, weekly and life to date PNL based on updated EoD price for each asset	1
7	A user should be able to access the product via a web application	1
8	A user should be able to access the product via a web application	2

Implementation Details

Components

1. The product ecosystem will be referred to as -
 - a. The 1st layer will be a user authentication layer
 - b. The 2nd layer, entry point to the ecosystem will be a data ingestion layer, all input files - holdings statement etc. will enter the system through this component. This product will take the input perform certain basic validations and store the data in a particular dataset
 - c. The 3rd layer will be a transformation layer which will transform all data stored as per a defined **open specification** and downstream applications will consume this transformed data
 - d. The 4th layer will be a computation layer which will perform all required analysis on the data and store the analysis in another dataset. This data will be accessible via APIs

Product Architecture (WIP)



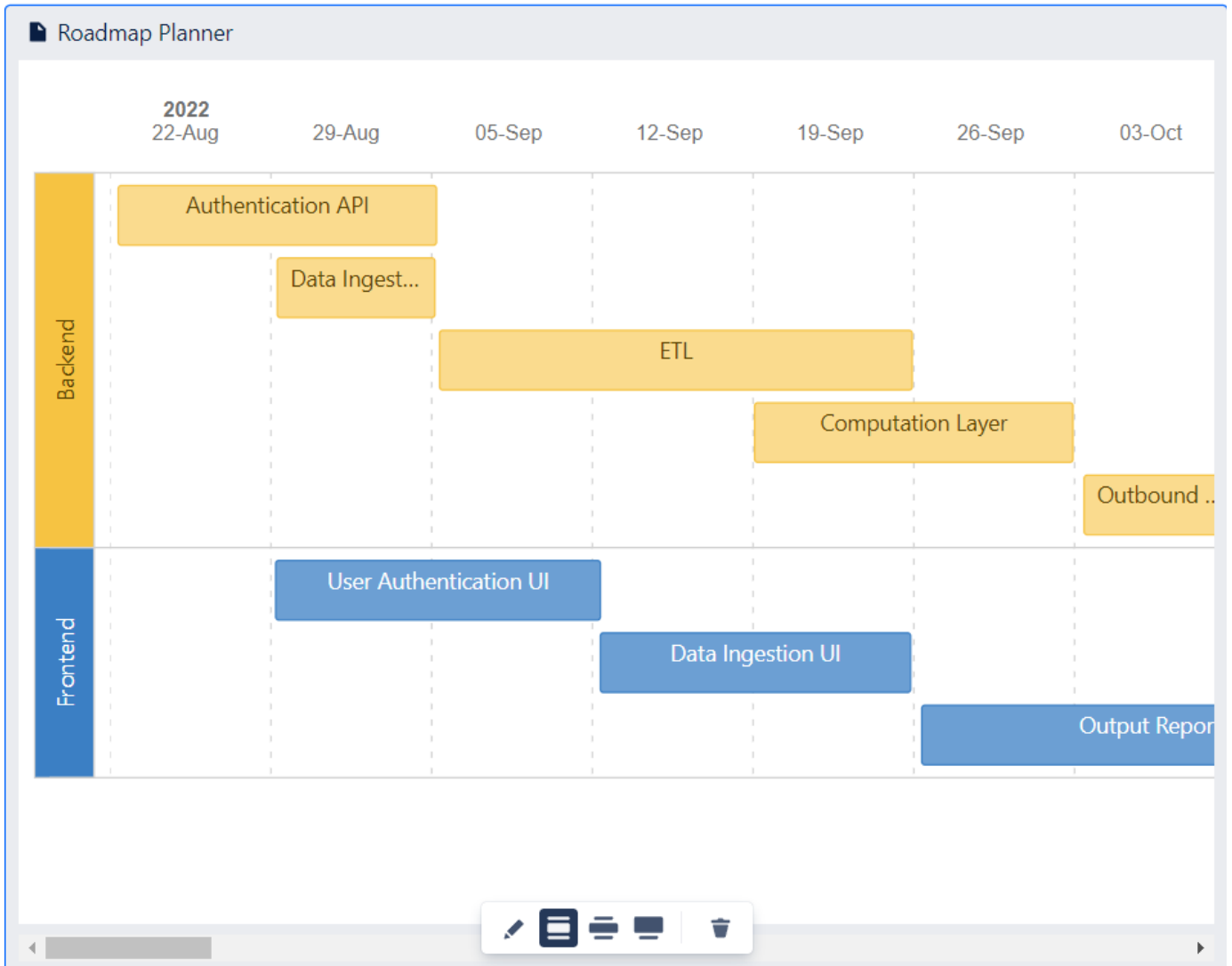
Product Roadmap

Roadmap

#	Tasklist	Owner	L1 estimate(hours)	Dev Ready Date	QA Status	UAT Status	Prod Status
1	API which authenticates a user or creates a new user account		80				
2	API to take a csv file as input, parse it, validate it and store it in a dataset		40				
2	ETL detects new entries in the raw dataset, fetches it and transforms it and stores it in another dataset		120				
3	Component to calculate portfolio analytics and other metrics present in the output report, store this information in another dataset		80				
4	API to fetch the output report		40				
5	UI to authenticate the user (login and sign up page)		80				
6	UI to let user add holdings statement or broker API keys		80				

7	UI to display a consolidated portfolio along with the filters mentioned in the spec.		80				
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Roadmap



Wireframes (WIP)