**Documentation**

**Problem Statement: API-DRIVEN FINANCIAL DATA AGGREGATOR**

**OBJECTIVE**: Create an API that simplifies access to diverse financial data, enabling developers to build comprehensive financial applications. The solution should include a dashboard that visualizes the data through multiple graphs. Dashboard should be configurable in real time.

**Tech Stack Used** : Mern Stack**(MONGODB, REACT JS, NODE JS, EXPRESS JS)**

**Backend (DATABASE + API)**

* Developed financial database using MongoDb.
* imported all the documents of given csv file of 5lakh+ entries to the databse using import command
* Developed Rest API which fetches the details of person based on the filters or parameters given
* It filters the data based on inputs for quering conditions from those 5L + enries of database
* Rest api adapted with filteries and aggregating data bt taking filters through the forms from the user

**FRONTEND(User Interface)**

* Collected the filters using forms from the user
* Used Char.js library from visualization of data
* Rendering different types of graphs based on the user selection

**Data Flow**

* **Frontend Request**: Users interact with the UI, applying filters and selecting chart types.
* **API Call:** The frontend sends HTTP requests to the backend API with the specified filters.
* **Data Processing:** The backend processes the request, applies filters, and fetches data from MongoDB.
* **Data Return:** The backend sends the filtered data back to the frontend.
* **Visualization:** The frontend receives the data and updates the charts accordingly.

**Features**

* **Dynamic Visualization** using char.js
* **Dynamic Filtering** of data
* **Error Handling**( while using complex parameters for quering)