This documentation outlines a system architecture for a financial trading system that satisfies the following requirements:

Web user interface.

- This component provides a user-friendly interface for authorized users to interact with the system.

It allows users to perform various tasks such as managing customer data, viewing calculation results, and initiating notifications.

Notification Server

- This component is responsible for sending notifications to end-users via push notifications or e-mail.

It receives requests from other components of the system and initiates the appropriate notifications

Central user login and authorization management.

- It stores user credentials and ensures that only authorized users can access the system.

Service for computation-intensive calculations (time-series simulations).

- This component performs computation-intensive calculations such as time-series simulations. It receives inputs from other components and generates outputs that are stored in the Storage Service

Service for storing the inputs and outputs of the calculations.

- This component stores the inputs and outputs of calculations performed by the Calculation Service Component. It is accessed by authorized users who need to view or modify the stored data.

Central master data repository (customer database).

- This component stores all customer data in a central repository. This data can be accessed and modified by authorized users of the system.

Actors:

- Financial Consultants: These are authorized users who use the system to manage customer data, perform calculations, and initiate notifications.

- Administrators: These are authorized users who have administrative privileges to manage the system and its components.

Actions:

- Authentication & Authorization service is invoked by API calls
- Calculation can be requested by an actor via API calls as well

Conculsion:

This documentation outlines a system architecture for a financial trading system that satisfies the requirements

of central user login and authorization management, central master data repository (Customer Database), notification Server, calculation service, data storage service, and web user interface. The architecture consists of six components that interact with each other to provide a robust and efficient system for financial consultants and administrators to use. The component diagram and data flow diagram provide a visual representation of the system, and the actors interacting with the system are also identified.

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