

Consolidating FIX Messages for Enhanced Insights

Interview case for Data Engineer (Data Office, Pictet Trading & Sales)

Description

You are tasked with developing a system that collects and processes FIX messages from three trading systems. The goal is to store these messages efficiently in a database, create a data model to analyse the FIX messages, and generate statistics and reports.

Your task during this interview phase is to demonstrate your expertise in setting up a scalable infrastructure, developing a web application to visualize the data, and managing large datasets efficiently using an OLAP database of your choice.

Presentation

During a 60-minute session, you will showcase your comprehensive approach, business understanding of trading systems with FIX messages, encompassing the setup of your infrastructure, demonstration of the web application, your data modeling tactics, and quality assurance protocols. You should be prepared to articulate the rationale behind your choices, clarify any assumptions, and discuss trade-offs encountered throughout the project. The following points are suggestions that can be discussed during your presentation; please feel free to adapt them as needed to align with your approach.

- › Business understanding
- › Data acquisition
 - Data sources (loading data)
 - Pipeline
 - Data environment
- › Data modelization
 - Table structure
 - SQL code
- › Web Application Development
- › KPIs to measure quality of process

Submission

Please send us in advance your presentation materials detailing your solution methodology, along with sharing code snippets or repositories that demonstrate the implementation. Please note that we do not expect a fully polished implementation, as we understand this work is conducted in your free time.
