

STOCK MARKET ANALYSIS

DBMS MINI PROJECT REPORT

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INTRODUCTION

We are implementing the topic - **Stock Market Analysis** wherein we shall collect real stock market data from API sources and analyse it using MongoDB queries. We shall broadly have two collections - Stocks and Users (subject to change).

FEATURES

We shall be implementing the following features:

- **Advanced Search** - The user will be able to access data based on keywords and filters. This shall also include general analytics like Top Stocks etc.
- **Stock Visualisations** - The user will be able to view graphs related to a particular stock with respect to different data available.
- **User Login and Authentication** : The user will be able to create an account and keep track of their wish-list of favourite stocks.

REASONS FOR USE OF MONGODB

1. Richness of Features :

	MySQL	MongoDB
Rich Data Model	No	Yes
Dynamic Schema	No	Yes
Typed Data	Yes	Yes
Data Locality	No	Yes
Field Updates	Yes	Yes
Easy for Programmers	No	Yes
Complex Transactions	Yes	No
Auditing	Yes	Yes
Auto-Sharding	No	Yes

2. **Large Database** : We shall be using a large database by gathering real data through the use of Financial APIs like Quandl.
3. **Fast Application Build Time** : Organizations are adopting MongoDB because it enables them to build applications faster, handle highly diverse data types, and manage applications more efficiently at scale.
4. **Simplified Development** : Development is simplified as MongoDB documents map naturally to modern, object-oriented programming languages. Using MongoDB removes the complex object-relational mapping (ORM) layer that translates objects in code to relational tables.