



Dhirubhai Ambani  
University

# INVEST HUB

## DBMS PROJECT

GIVEN BY  
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# **GROUP MEMBERS**

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# INTRODUCTION

We are developing a database project on the **Stock Market Management System**, named **InvestHUB**. This system is designed to serve various types of users, including **Investors, Brokers, Analysts, Foreign Institutional Investors (FII), Domestic Institutional Investors (DII), and Unregistered Users**, by providing efficient stock market data management and analysis. InvestHUB offers key functionalities such as **stock tracking, trade execution, portfolio management, market analysis, and management of institutional investments**. It enables users to monitor stock performance, execute trades, analyze market trends, and manage investment portfolios. The specific use cases for each user type are detailed in the next section.



# **DATABASE OBJECTIVES**

## **1. Investor-Specific Objectives**

- **Trade Stocks:** Buy and sell stocks.
- **Portfolio Management:** Track and optimize your investments.
- **Custom Watchlists:** Create, edit, and organize watchlists for better market tracking.
- **Profit & Loss Reports:** Generate detailed reports to access financial performance.
- **Fund Management:** Add, withdraw, and allocate funds with ease.
- **IPO Insights:** Get the latest updates on upcoming and ongoing IPOs.
- **Dividend Tracker:** Access detailed dividend information for your investments.
- **Transaction Processing** – transactions status tracking.
- **Stock Performance Insights** – Store and analyze P/E ratio, EPS, and dividend yield for fundamental analysis.
- **Mutual Fund Investment Management** - Allow users to buy and sell mutual fund units seamlessly.
- **Mutual Fund Holdings & Stock Allocation Analysis** - Show which stocks a mutual fund holds and their percentage allocation.
- **Fund Performance & Risk Analysis** - Compare mutual funds based on returns, risk level, and expense ratio.

# **DATABASE OBJECTIVES**

## **2. Investor-Specific Objectives**

- **Transaction Analysis:** Monitor and manage user transactions across the platform.
- **Institutional Trade Tracking:** Track FII and DII trades, information for analysis.
- **IPO Insights:** Provide admins with the latest IPO information.
- **Block Deals Information:** Administer and store information on large institutional trades to ensure market transparency and compliance.

## **3. Analyst-Specific Objectives**

- **Market Analysis Tools:** Provide prediction tools for market trends (help analysts keep up with stock performance, volatility, etc.).
- **Stock Performance Insights:** Perform in-depth analysis of stock performance, focusing on key metrics like P/E ratio, EPS, and dividend yield.
- **Institutional Trade Tracking:** Analyze institutional trade activities (FII/DII) to understand market movements.

# **DATABASE OBJECTIVES**

- **Mutual Fund Holdings & Stock Allocation Analysis:** Analyze mutual fund portfolios, the stocks they hold, and their respective allocations to assess trends.
- **Fund Performance & Risk Analysis:** Assess the performance and risk factors of mutual funds in comparison to others, and provide recommendations to investors.

## **4. Foreign Institutional Investor (FII) and Domestic Institutional Investors (DII)**

- **Institutional Trade Tracking** – Record and analyze FII and DII trading activities to assess market sentiment.
- **Block Deals Information** – Maintain records of large-volume trades between institutional investors for better market transparency.
- **Stock Performance Insights** – Store and analyze P/E ratio, EPS, and dividend yield for fundamental analysis.

# TENTATIVE QUERIES

- Search the stock based on its **stock\_id** or **stock\_symbol**.
- Get available funds from a given user.
- Display today's **market trend** of a given stock.
- List the **upcoming IPO** details.
- Give **Mutual Funds' minimum investment** and Risk level.
- Give the **return of the specified mutual fund**.
- Get stock's **P/E ratio, EPS, Volume, 52-week Low, and High** based on its stock\_id.
- List stocks which have **Market Capitalization > 20,000** and **P/E ratio < 50**.
- Select a stock and **buy a specified quantity** of it.
- Give **Total profit/loss** of the day.
- Stock **returns in the last year**.
- List **top 3 performing stocks** of a given **watchlist**.
- Give **which sector is best performing** in terms of **profit/loss** on a given date.
- List **stocks added to the portfolio from the watchlist**.
- Give **dividend value** for a given **sector, company-wise**.
- Transactions done by **FII and DII**s on a given date.
- Which **block deals happened during a given time period** (8:45 to 9:00 or 2:05 to 2:20).
- List the **Total Dividends Paid** by a given company in the **Last Year**.

# TENTATIVE QUERIES

- List the **Top 3 Performing Stocks** by Market Capitalization in the Last Year.
- Identify the **Most Active Users in Buying Stocks** (based on the number of buys).
- Get the **Sector-Wise Total Investment from Foreign Institutional Investors (FII)**.
- Find the **Total Investment in Mutual Funds** by each user.
- Get the **Top 5 Stocks Based on Dividend Yield** in the **Last Year**.
- List users who have a **portfolio with stocks from more than 2 different sectors**.
- Find the **Total Number of Block Deals** for each stock in the **Last Month**.
- Get the **Stocks That Were Added to the Watchlist** by more than 5 users.
- Identify the **Most Profitable Sector** for Investors in Terms of **Profit/Loss** in the **Last Year**.
- Get the **Total Block Deal Value** (by **FII or DII**) in a **Specific Date Range** for a specific stock.
- List **Mutual Funds with the Highest AUM (Asset Under Management)** in each **Risk Level Category**.
- Calculate the **Total Transaction Fee Collected by Brokers** in the **Last Month**.

# TENTATIVE QUERIES

- **Set Stop-Loss** for a Given Stock at **5%**. That is, sell the stock if its value drops more than 5% below its average buy price.
- **Set a Target Price of ₹500** for a given stock and **purchase 200 quantities** of that stock automatically.
- **Total Investment by Sector** for Each Investor (grouped by sector).

