STOCK

MANAGER

v1.0

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**INTRODUCTION**

1. **Purpose**

Days are gone when entries or databases were made manually. Today is about automation, which is considered as a more efficient way method. This product contributes to the same. Stock market is a computer based, fully automated trading system. All transactions and their corresponding records are automatically saved to stock exchange’s database. However, stock-brokers and other shareholders need to keep a record for their own purpose. Generally, they do this by writing them down in a register or a ledger. This makes it a very tedious job. This is the part where this software comes into play.

1. **Scope**

As the name suggests, this software would let a shareholder keep a record of all their transactions. This software basically aims more at requirements of a stock-broker than an individual shareholder as a stock-broker needs to keep track of different clients and their respective transactions. But definitely, it can be used by an individual shareholder. This software can also be used by developers as well as by students for learning purposes.

Thus, this software could be used commercially and even at personal level.

1. **References**

For further details or queries:

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For details about DBMS:

Refer: Simplified Approach To DBMS

For details about Oracle 9i:

Visit: <https://docs.oracle.com/cd/B10501_01/server.920/a96524/toc.htm>

1. **Software and Hardware**

This software is a combination of:

Back-end: Oracle 9i

Front-end: CSS, HTML, Bootstrap

Hardware required:

Network adaptor- To connect with oracle server

Or

Oracle 9i installed- In that case, internet would not be required and user can make his own server

This software being a website would be compatible with any smartphone or laptop or PC.

**DESCRIPTION**

**2.1** **E-R Model:**

**Entities**

* Client
* Company
* Depository Participant
* Transaction

**Relation Between Entities**

The design of database system is as such that it enables a **stock broker** to make transactions for his/her **client**. The **stock broker** can have zero or more **clients**. Each **client** can have zero or more **transactions** but each **transaction** can be made by only one **client**. Each **client** is further associated with one or more **depository participant(s)** and each **depository participant** can have zero or more **clients**. **Transactions** are made of shares which belong to a **company**. Each **company** has its own share. Each **company** can give its share to zero or more **clients** and each **client** can have shares of zero or more **companies**. Also, each **transaction** can have only one **company**’s share but each **company** can be in zero or more **transactions**.

**Attriutes**

Each **transaction** has some requirements:

Each transaction, assigned a unique transaction id, is made by a client having a unique client id. Transaction is made of a company’s share having a company code . Date and time of transaction are also mentioned. It also includes which type of transaction is made i.e. whether cash or future. Next, it includes buy or sell price of the share and brokerage as well as service tax applied to transaction. Also, quantity of shares transacted is included. At last, total amount is derived.

Transaction id (t\_id), Client id(client\_id), Company code (code), Date (date), Time (time), Type (type), Buy price (buy\_p), Sell price (sell\_p), brokerage (bkg), Service tax (s\_tax), Quantity (qty) and Total (ttl)

Each **client** has some attributes:

Each client is assigned a unique id and has a name. Contact details are also stored like phone number(s), email id(s), residential address(es). Client’s id record is also maintained which includes id proof and its corresponding number. Client has bank details such as pan number, account number and depository participant id

Client id(client\_id), Name (name), Phone number (ph\_no), Email id (email), Address (address), Id proof (id\_prf), Id proof number (id\_prf\_no), Pan number (pan\_no), Account number (acc\_no), Depository participant id (dp\_id)

Each **depository participant** has some data:

Each depository participant has its own unique id, name and associated depository, of which it is a particiapnt.

Depository Participant id (dp\_id), Depository Participant name (dp\_name), Depository (depository)

Each **company** has some information:

Each company has a unique code, name and id.

Company code (code), Commpany name (name), Company id (id)

* 1. **WORKFLOW**
* First, stock broker would add the depository participant details in **DP** table to have a master of all allowed Dp details.
* Then, would make a database of all stocks he deals in, in **COMPANY** table for allowed stocks.
* After this, stock broker is good to go and add client details in **CLIENT** table.
* Finally, all is set to make the main database i.e. **TRANSACTION** table. Here, only allowed client\_id and code are allowed which provides integrity and consistency of data.
* Admin would be allowed to update **CLIENT, DP, COMPANY** so that in future if a new share or company or client or dp is introduced, it could be added to database without any trouble.

**BENEFITS**

* Functionality and features of this software would be such that it would make stock-broker’s tasks easier and more efficient.
* More data storage
* Faster retrieval of data and easier search
* Data can be updated without any cutting
* Data can be deleted and space can be reallocated
* Easier study and understanding of data
* Integrity of data as only allowed and correct values can be enetered
* Consistency of data
* Sharing of data can take place between machines
* Easier backup and recovery as only a single file is to be protected
* Data independence

**SUMMARY**

This product has great usability for stock-brokers and designed to their needs. Its user-friendly feature makes it even more special. Along with that, it has all attributes that a stock-broker may need. It also gives power only to the admin to add or delete records. Overall, it has more advantages than manual methods. Also, on some level it, would help to save paper and thus, trees. This product is another contribution to automation in the field of stock market.