

Case 2: TrueTrade

Story:

Your client is a stock-exchange company. The background story is as below:
TrueTrade provides excellent financial services to customers all over the world. Customers can buy/sell stock via TrueTrade easily and securely. TrueTrade also provides detailed information for every stock so customers can make the best decision.

ER Model:

After confirming with the client, possible entities and their attributes, identifiers are:

- Stocks: *stock#, companyName, exchangeMarket, description
- Customers: *customerID, name, phone, email, address
- Portfolio: customerName, currentValue
- Logs: *stock#, *date, openPrice, closePrice
- Transactions: *TransactionID, customerID, Portfolio, stock#, quantity, price, date, time

The relationships among these entities are based on my assumptions - I'll discuss with the client later on and make necessary modifications.

- A customer must have one or more portfolios, and a portfolio must belong to one and only one customer.
- A portfolio may have one or more stocks, and a stock may belong to one or more portfolios.
- A stock must have one or more logs, and one log must belong to one and only one stock
- A customer may have one or more transactions, and each transaction must be done by one and only one customer
- A portfolio may be in one or more transactions, and each transaction must include one and only one portfolio
- A transaction must have a stock, and a stock may be in one or more transactions.

ERD

Draw the ERD based on above ER Model.

