CS 157A Intro to Database Management Systems

Project Data Model & DB Design Document

Project Title: Stock Data Aggregation Web-App

TEAM 34

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**ER-Model**

* Identify the entities, attributes, dependences, relationships, constraints, etc.
* Show ISA, multi-way relationship weak entity sets, etc. that apply to your design.
* Explanation for each entity set and relationship, write a short description in plain English of what it represents or models. One or two sentences per entity set and relationship is enough. These descriptions are primarily to help understand what you are modeling.

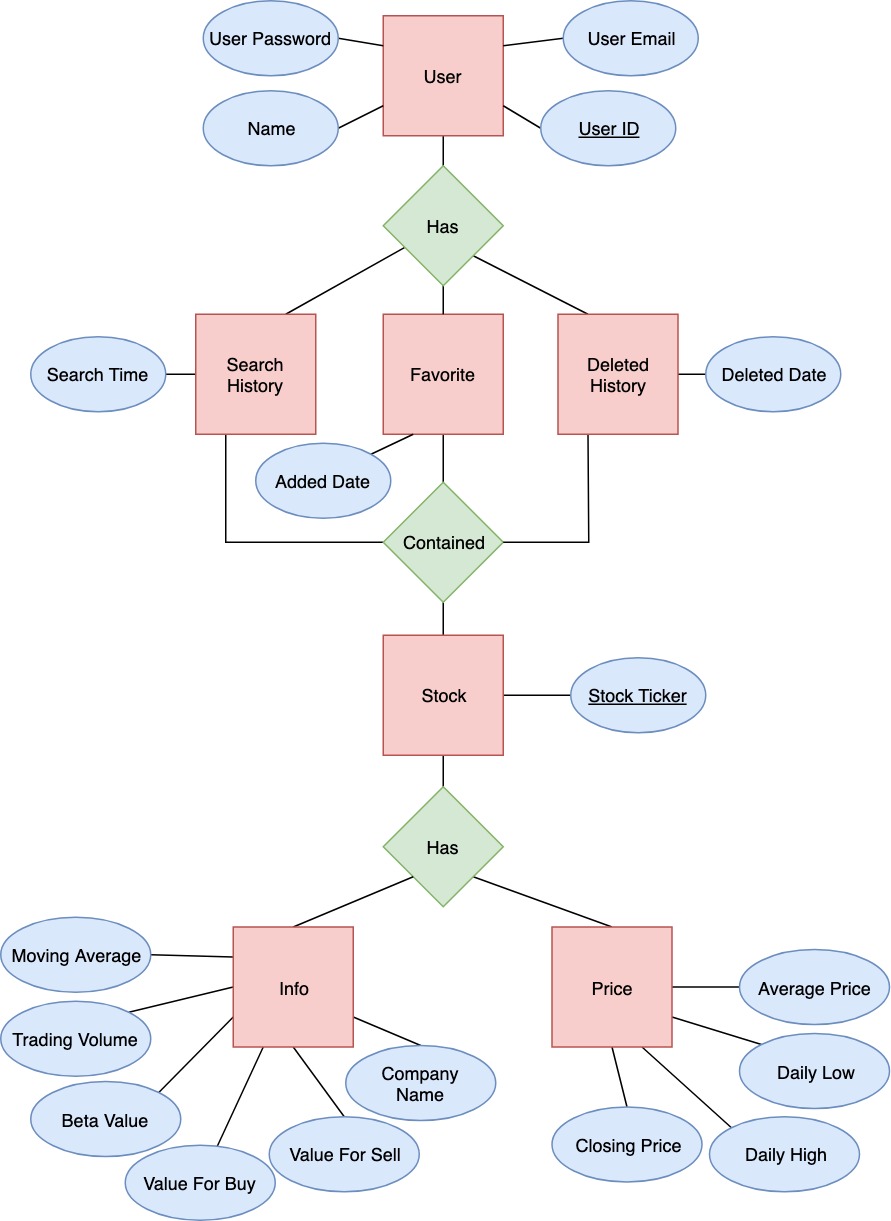
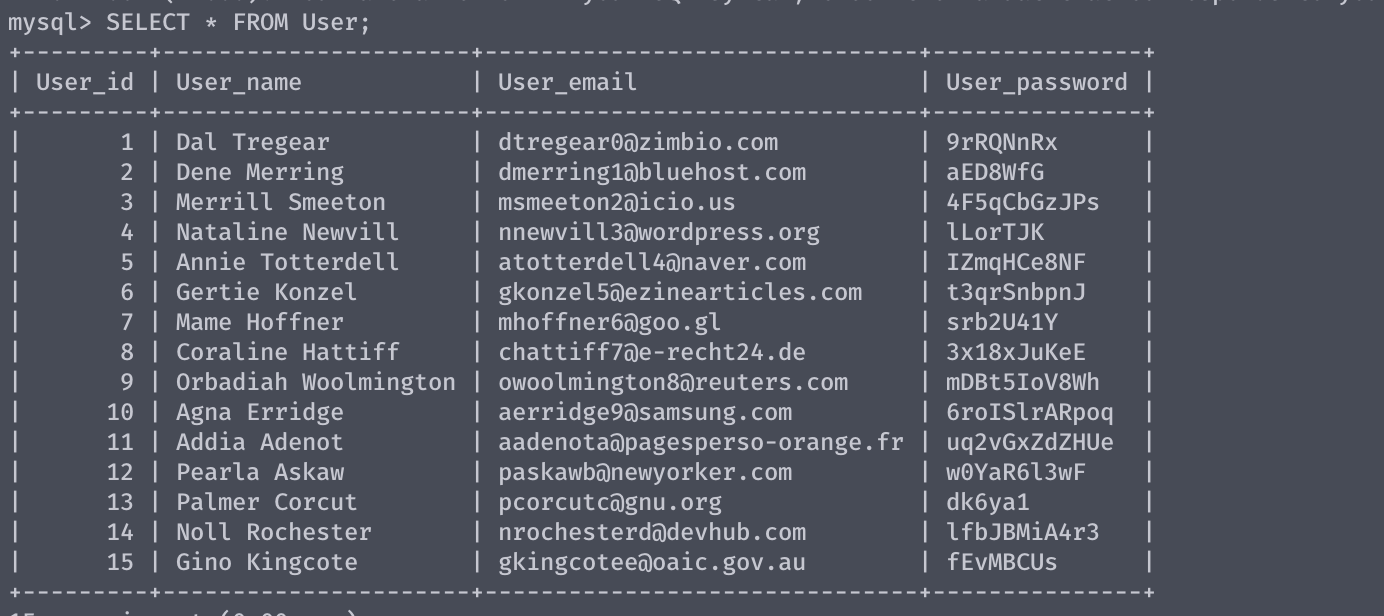


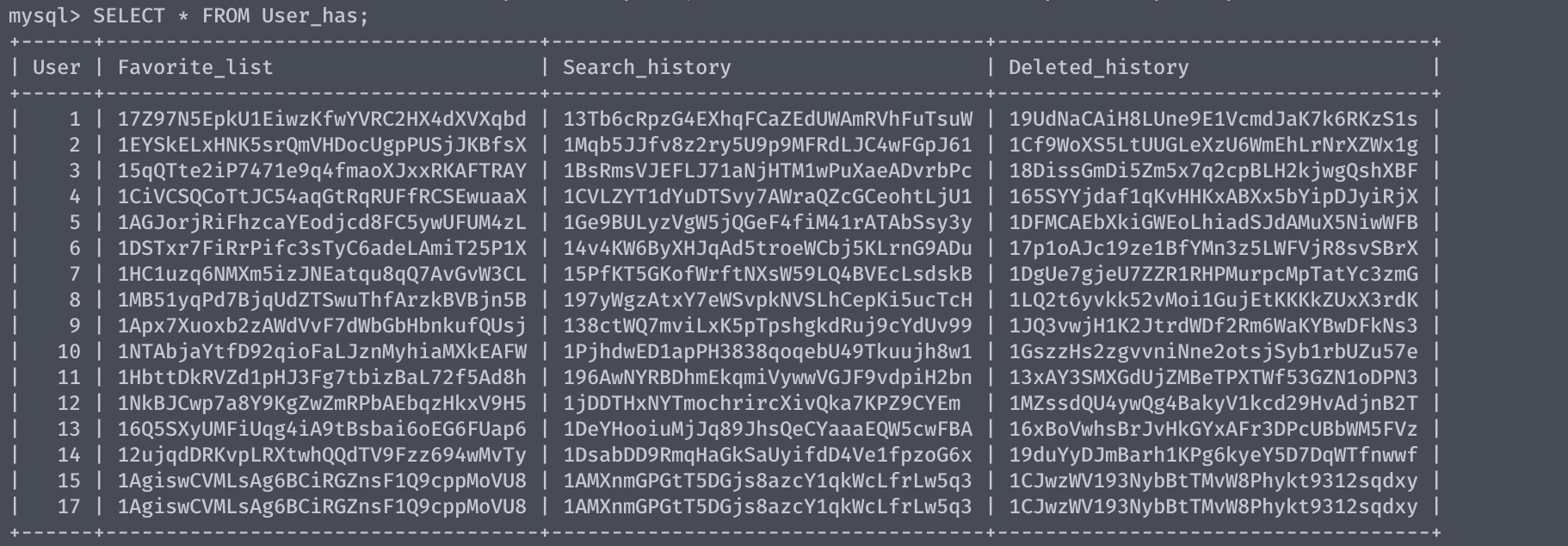
Figure 1. ER-Model

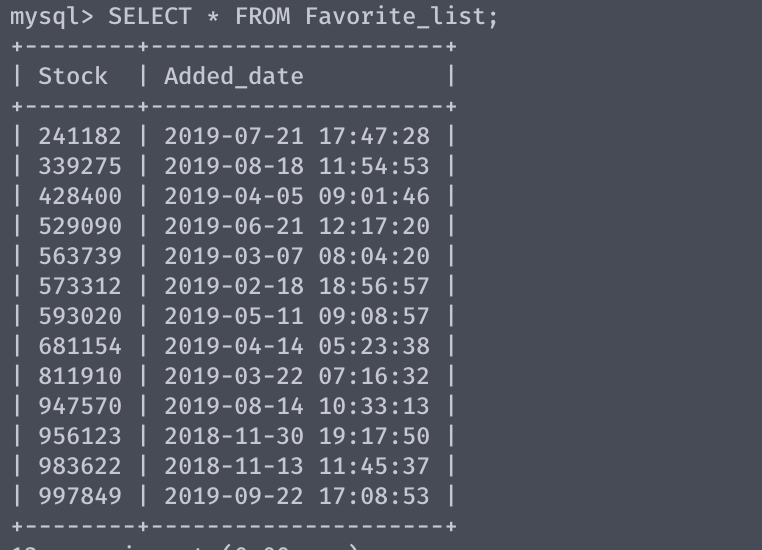
**Table**

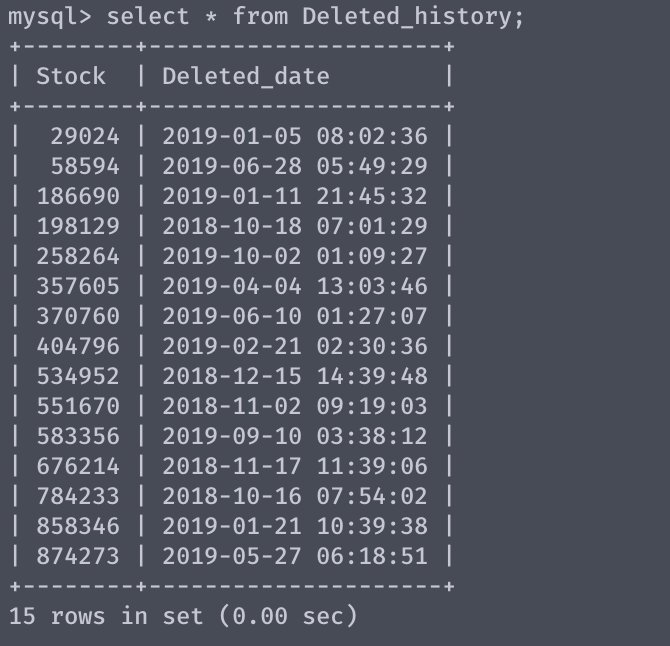
- Create and show at least 10 tables according to schemas and model the data stored in the database (Each table must contains at least 15 tuple instances.)



There are many users of our application, and this table is an example of how that information would be stored.

Each unique user is associated with three more tables which contain the user’s favorite stocks, the user’s recent search history, and the user’s recently deleted searches.

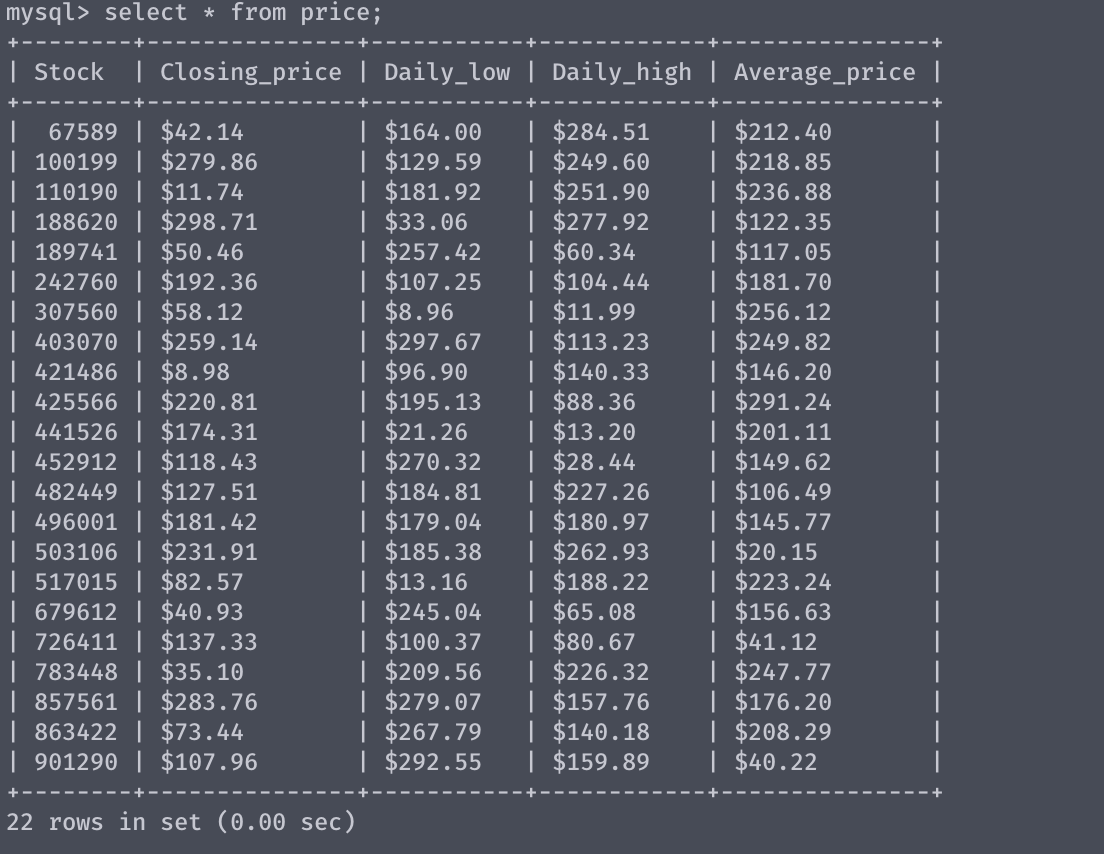
From each user’s favorite list, each stock has a Stock ID and a timestamp of when it was added to the user’s favorite list.In the relationship between Favorite List, Search History and deleted history, each of these tables aggregate stock objects so Stock is its own entity with attributes. In a one to many relationships, one of each of the tables mentioned can hold several stock objects.



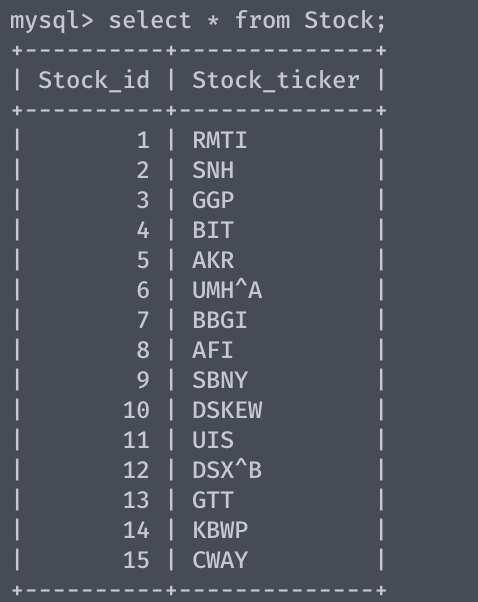
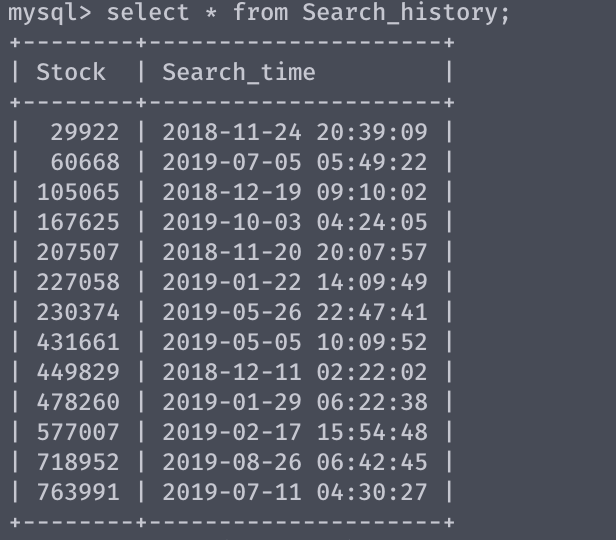
Deleted history table aggregates stock objects, primary key of the relationship is the Stock ID.

Each Stock has a table called information associated with it, Stock ID is again the primary key of the relationship.

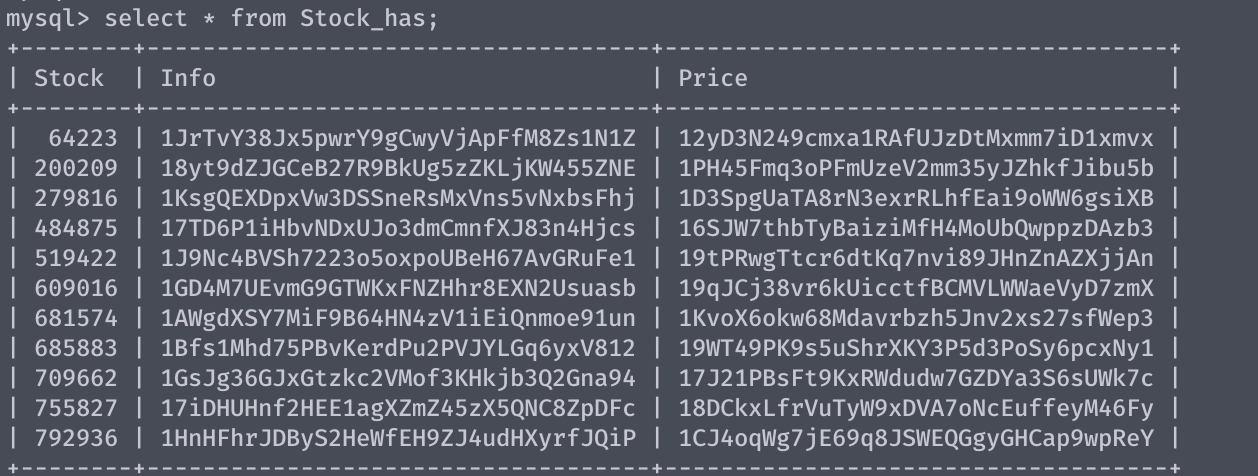
A screenshot of a cell phone

Description automatically generated

Each Stock also has a table called price associated with it to store information about the price.



The Stock entity itself only has two columns called Stock ID and Stock Ticker,



This is a table demonstrating a join between Stock, and its two entities Information and Price.