Figure 1 shows the schema for our database.
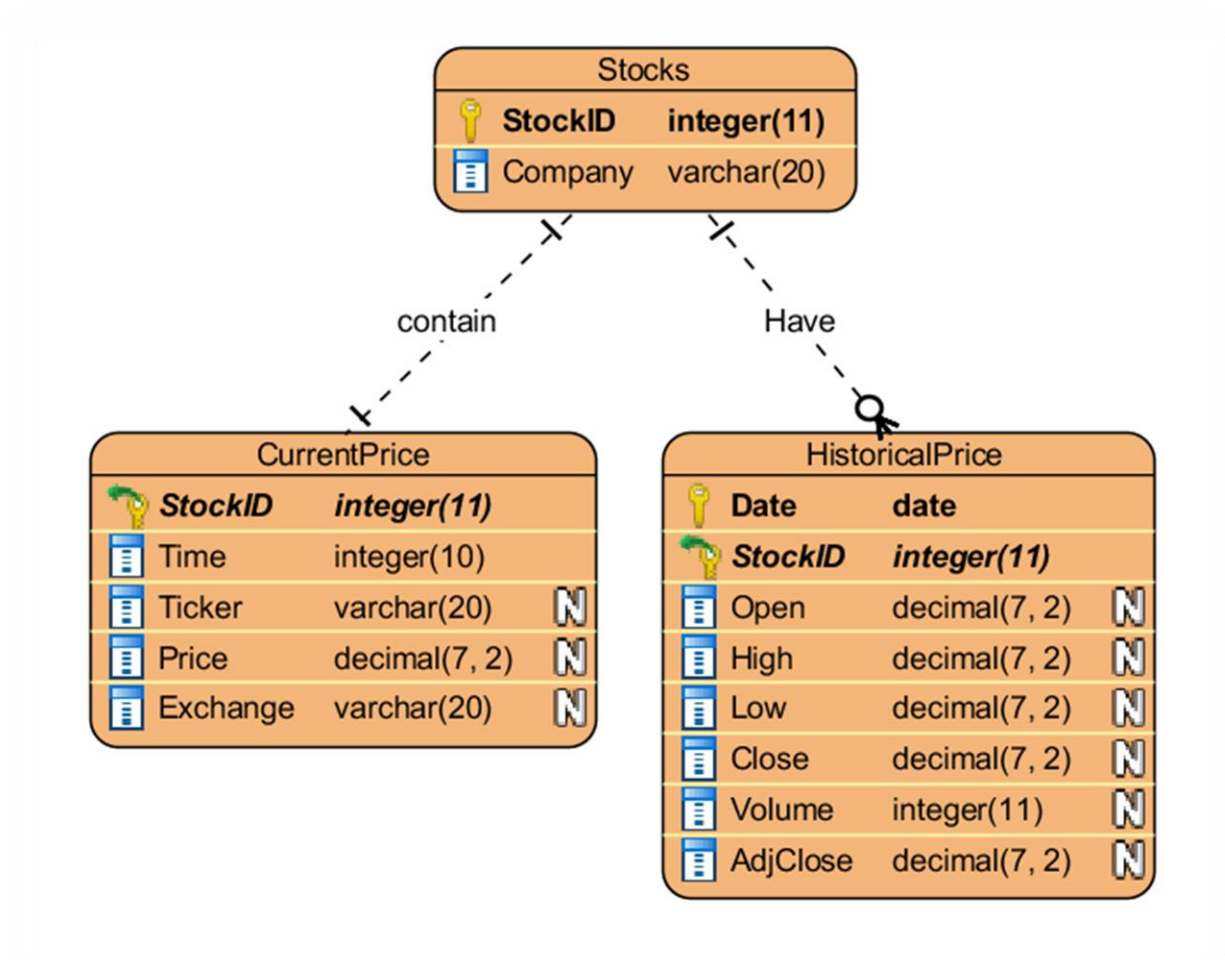

Figure 1 the Database Schema

For each stock, the real-time information and historical information are stored in three entities for future use. Entity Stocks stores the basic information of the stock including the StockID and the company name. StockID is the primary key to identify each entry in it. CurrentPrice stores the real-time price of the stocks with StockID as the primary key. HistoricalPrice stores stock price information in the history, including the open, high, low, etc. The primary key for it is Date and StockID. One stock has only one current price which means stocks has a one to one relationship with CurrentPrice. One stock can have different price history for different date. So it has one to many relationship with the HistoricalPrice entity.