6 HW #2A: Basic Functions

The following questions utilize the financial data in the s2010, s2011 and fnd tables. Before beginning the assignment, *please read the data dictionary to better understand the data.* When doing so, keep an eye on data types for different columns as well as table organization.

- If no table information is given, use the 2010 data.

- If the query returns a significant number of rows, please only copy a few rows in your response.

- For those queries which require specifying a date, please use the format 'YYYY-MM-DD' (as in '2010-01-11'), making sure to use single quotes around the date itself.

In the problems below you may need to use the following definitions:

- **Profit Margin:** Net Income divided by Revenue.

- **Turnover:** Revenue divided by Inventory.

- **Dollar-volume:** This is the dollar value of stocks traded based on the closing price, so equal to the closing price of the shares traded multiplied by the volume.

The best approach to learning from these problems is to complete them using pen and paper, working by yourself and then using your group to double check your results. The First Five problems provide a short overview of the core concepts in the assignment, so make sure that you understand them. The Main Problems section contains questions which range from easy to very difficult. Remember to don't get stuck! If a problem is taking a long time or is too difficult, *use your group!*

First Five

1. Write a query which returns the date and symbol of the largest "one-day gainer" on the NYSE in 2010, that is the stock which has the highest close - open.

2. Return the symbol, return date and the dollar volume traded for the highest dollar volume traded stocks in 2010 on the NYSE.

3. Using the fnd data, which companies (company name), in fiscal year 2010 had a profit margin greater than 20%, turnover more than 2 and more than 10,000 employees?

4. What are the symbols and dollar volume traded for the companies with the top 5 dollar (based on closing price) volume traded on February 3rd 2010 (NYSE only)?

5. Write a query which returns the stock (symbol only) which has the largest (absolute) difference between high and low price for those stocks which have an absolute difference between their high and low of less than $1 dollar and a volume greater than 5,000 (NYSE only in 2010).

Main Problems

1. The "one-day percentage gain" is equal to $\frac{close-open}{open}$. Write a query which returns the date and symbol of the largest one-day percentage gainer of NYSE stocks in 2010.

2. Write a query which returns the date and symbol of the largest one-day percentage gainer for those stocks on the NYSE whose symbol begins with the letter "R" in 2010.

3. Write a query which returns all stocks (symbol and date) with a one-day percentage gain of more than 70 percent whose symbol either begins with R or ends with C.

4. Write a query which returns the stock (symbol) whose second letter (in their symbol) is "T" and is the largest one-day percentage gainer.

5. For those stocks in fiscal year 2010 with a negative net income, which stock (company name) had the largest amount of inventories (fnd table)?

6. Using the fnd table, write a query which returns the company name and the net income for the stock (in 2010) with the largest net income among those stocks with the phrase "data" (case-insensitive) in the company name.

7. Using the fnd table, write a query which returns the top-5 most profitable (highest net income) companies (and their net income) for those companies with either "bank" or "financial" (case-insensitive) in their company name for fiscal year 2010.

8. Using the fnd table, write a query which returns the minimum of ebitda or net income (call it min_profit) and the company name for companies with "apple" (case-insensitive) in their name. Order the results by number of employees from highest to lowest and only include those companies which have all three numeric columns (ebidta, netinc and emp) present.

9. Using the fnd table, write a query which returns squared difference between ebitda and net income (call it sqr_diff) as well as the company name for companies in fiscal year 2010 whose name includes both a Z and a K, but does not contain a C.

10. Write a query which returns the 2 lowest, positive, net incomes (as well as company names) for those companies in fiscal year 2010 with "ING" in their name where the total number of characters in their name is between 5 and 12 (inclusive).