**Data Warehousing – Business Scenario**

Ada Yan, a database specialist for a large bank, faces several problems:

1. She needs to develop 4-5 different customer profiles, which will be used for each group to predict the type of services used, the lending risk, the pattern of transactions, and bank usage. For instance, there is one cluster called Young Transitions, which is composed of customers between the age of 18-25 who are either in college or just starting their careers. They tend to be heavy users of ATMs, primarily use checking and savings accounts, and about 50 percent take out a car loan. The default rate on car loans is about 15 percent, but when a co-signer is required for the loan, the default rate drops to 5 percent. This group also uses credit cards extensively and has an average balance of $200. Most will pay interest on their credit card payments 6-8 times a year. This group also has a high percentage of late fees on their credit cards (the balances are typically paid but 60% are assessed a late fee on them).
2. The bank wants to identify those customers most likely to leave it in order to offer them special deals. The bank recognizes that the more accounts a customer has with it, the less likely the customer will leave the bank.
3. The bank wants to determine the most likely banking service a customer will purchase.
4. The bank also wants to be able to better identify loan risks. This will enable it to approve or reject loan applications with higher accuracy.

Ada immediately recognized the need for a data warehouse.

Think about the type of data she should extract from the operational database and the issues she might have to confront. Discuss the different types of data mining techniques she might use to solve the preceding problems.

*This is an open ended question and you need to visualize the various steps, decisions, Ada will need to be make in as much detail as possible. You have to use your imagination based on much of the Chapter 13 discussion.*