Group BA-8, Justin Zhu, Hongyiming Cui, Dexin Sun, Vinh Nguyen

For this assignment, please write a single-page document describing your database topic. Please organize this document using the following headings:

1) Business Scenario: What industry are you working in? Where might the data come from?

The Business Service is the industry that we are targeting to work in. The data is largely extracted from U.S Burea of Labor Statistics <https://www.bls.gov/>, and relevant industry reports.

2) Typical users: Who will need to interact with the data? Analysts? Customers? Managers?

The typical user would be someone who is interested in business. More specifically, the user can be job-seekers who want to get to know more aspects, such as company scale and development prospects, about a position or company.

3) Representative questions (in plain language) your users will want to answer using your database: Recent Orders? Most popular product? Available rooms? Region with highest sales?

The trend of the open positions in business service industry.

Prediction of the industry trend.

Salary Expectation.

Which position is most popular in the business service industry?

4) Anticipated volume of reads, inserts, and updates (imagining a real deployment): How many queries per day? How much new data is going in per day? How often does existing data change?

Queries per day: This will depend on the number of users accessing the system and the frequency of data access. For small businesses, the number of queries per day may be in the range of a few hundred to a few thousand. For larger businesses with many users and high data access frequency, the number of queries per day could be in the millions or even billions.

New data going in per day: The amount of new data going into the system will depend on the type of business and the nature of its operations. For example, an e-commerce site that sells thousands of products each day may have a high volume of new data going in, while a consulting firm that primarily deals with client data may have a lower volume.

Changes to existing data: This will depend on how often the business data changes. For example, a news website that publishes hundreds of articles per day may have a high volume of changes, while a manufacturing company that produces the same products over a long period may have a lower volume.

In summary, the anticipated volume of reads, inserts, and updates for a business database will depend on the specific needs of the business. A small business may have a few hundred to a few thousand queries per day, while a large business may have millions or billions. The amount of new data going in per day and changes to existing data will depend on the nature of the business operations.

5) Consider which of your queries in 3), if any, must be very efficient: Where will performance matter?

Salary Expectation must be very efficient since we are targeting undergraduate students who are looking for relevant information upon job seeking, especially some of users might look for a quick idea of what the salary estimation and minimum wage would be like in business service related jobs. The salary expectation criteria can help the potential employee to have a quick payroll and wage overview in the industry field with the gathered information. Also, the performance of a business analysis database for people seeking jobs will be important in ensuring the efficient operation of the salary expectation feature. The database must be designed to handle data retrieval, calculation speed, scalability, accuracy, and integration to ensure that job seekers receive accurate and relevant salary information.