CS 1103 - FR02B
Assignment 7

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Review Questions:

Question 1: What is Big Data? Give a brief definition.

Big Data generally is a set of data that displays the characteristics of volume, velocity, and variety.

Question 2: What are the traditional 3 Vs of Big Data? Briefly, define each.

- ▶ **Volume:** The quantity of data to be stored.
- ▶ **Velocity:** The speed at which data is entering the system.
- ▶ **Variety:** The variations in the structure of the data to be stored.

Question 4: Explain the difference between *scaling up* and *scaling out*

- ▶ **Scaling up:** A method for dealing with data growth that involves migrating the same structure to more powerful systems.
- ▶ **Scaling out:** A method for dealing with data growth that involves distributing data storage structures across a cluster of commodity servers.

Question 13: What are the four basic categories of NoSQL databases?

- ▶ Key-value database
- ▶ Document databases
- ▶ Column-oriented databases
- ▶ Graph databases

Question 14: How are the value components of a key-value database and a document database different?

- ▶ T**he value components of a key-value database:** The value component is unintelligible to the DBMS.
- ▶ **The value components of a document database:** T the value component is composed of a tag-encoded document.