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GRADE
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Data Formats and Streaming Data Quiz

LATEST SUBMISSION GRADE

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1. What is true between data modeling and the formatting of the data? `1 / 1 point`

   ○ There is a one to one correspondence between formatting data and data modeling. For every model of data, there is only one way to store the data.

   ⦿ The data does not necessarily need to be formatted in a way that represents the data model. Just so long as it can be extrapolated.

   ○ There is always one specific schema for storing model data that is the best and preferred method for the specific data representation.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

2. What is streaming? `1 / 1 point`

   ○ Calculating results using real time data otherwise known as streaming data.

   ○ Using sensors to manipulate the system, such as a smart car being able to drive by itself using sensors to detect road hazards.

   ⦿ Utilizing real time data to compute and change the state of an application continuously.

   ○ Using static data stored from a real time source in order to process and guide the application.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

3. Of the following, what best describes the properties of working with streaming data? `1 / 1 point`

   ☐ Data is always utilized for streaming the application.

   ☑ Data manipulation is near real time.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

   ☑ Does not ping the source interactively for a response upon receiving the data.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

   ☑ Independent computations that do not rely on previous or future data.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

   ☑ Small time windows for working with data.

   > ✓ **Correct**
   > For more information related to this concept, please click here.

   ☐ Always unbounded in sequence, in other words, data is not guaranteed to be in order.

4. What is a characteristic of streaming data? `1 / 1 point`

   ⦿ Data is unbounded in size but requires only finite time and space to process it.

   ○ The data is unbounded in size and the size determines the time and space of processing the data.

   ○ The data is finite and requires only finite time and space to process the data.

   ○ Data is finite in size and size determines the time and space of processing the data.

5. What type of algorithm is required for analyzing streaming data?   `1 / 1 point`

- ⦿ Fast and Simple
- ◯ Fast and Complex
- ◯ Accurate and Memory Efficient
- ◯ Accurate and Consistent

6. What is lambda architecture?   `1 / 1 point`

- ⦿ A method to process streaming data by utilizing batch processing and real time processing.
- ◯ A specific method for processing streaming data using special real time processes.
- ◯ A specific hardware architecture for a server made specifically for processing real time data.

7. Of the following, which best represents the challenge regarding the size and frequency of data?   `1 / 1 point`

- ◯ The size and frequency of the streaming data may be too small.
- ⦿ The size and frequency of the streaming data may be sporadic.
- ◯ There may not be data to produce the notion of size and frequency.

8. What is the difference between data lakes and data warehouses?   `1 / 1 point`

- ◯ Data lakes contain only files while data warehouses contain only databases.
- ◯ Data lakes utilize hierarchical systems while data warehouses use object storage.
- ⦿ Data lakes house raw data while data warehouses contain pre-formatted data.

9. What is schema-on-read?   `1 / 1 point`

- ◯ The process where data is pre-formatted prior to being read but the schema is loaded on read.
- ⦿ Data is stored as raw data until it is read by an application where the application assigns structure.
- ◯ The process where formatted data is given structure when read.
- ◯ Another name for data lakes.