Review: BDAT - HBase Tutorial

Respondent

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16:03

Time to complete

0/30

Points

✍ **Needs review**

Score   / 3 pts

Needs review

1. What is Hbase?

> HBase is an opensource, scalable, distributed and columnar No-SQL database. It runs on top of HDFS. It is used to store large collection of sparse datasets. HBase is used when we require fast and random read/write access to big data.

✍ **Needs review**

Score   / 3 pts

Needs review

2. What is a NOSQL Database?

> NoSQL means Not only SQL. It is modeled in such a way it can represent the data in tabular format. It uses different formats to represent data in the database. There are different types of databases depending on their representation format.

✍ **Needs review**

Score   / 3 pts

Needs review

3. When HBase can be used? List some instances.

> HBase can be used when
> 1. We have huge sparse datasets of big data and we require fast and random read/write access to those big data.
> 2. the datasets are distributed across clusters and we need to have scalability.
> 3. we want store column-oriented data.

Score   / 5 pts

4. Differentiate HBase and HDFS.

> a) HDFS is a distributed file system which allows us to store big data across multiple nodes in a cluster whereas HBase is a database (like MySQL).
> b) HDFS supports WORM (Write Once Read Many) whereas HBase supports random read/write access.

Score   / 3 pts

5. What are the key components of Hbase?

> 1. HMaster: It does monitor all region servers and does all admin functions.
> 2. Zoo Keeper: It does coordination between client and HMaster.
> 3. Region: The column family division is a Region. It contains Memstore (Memory Data Store) and HFile.
> 4. Region Server: It monitors all the regions.

Score   / 3 pts

6. What does Hbase consists of?

> HBase consists of a set of tables where table is a collection of rows; row is a collection of column families; Column family is a collection of columns; Column is a collection of key-value pairs.

Score   / 3 pts

7. What is the use of HBase HMaster?

> It coordinates all the region servers and it does all admin functions.

Score   / 1 pt

8. HBase supports syntax structure like SQL?

- ◯ Yes

- ⦿ No

9. Can the region server be located on all DataNodes?

> Yes, the region servers run on the same servers as Data Nodes.

10. What is a cell in HBase?

> A cell is the smallest unit of the HBase table. It helps to hold the data in the form of a tuple {key, value, version}