

# Knowledge Check 12: Spark and HDFS

|                        |                                   |                     |
|------------------------|-----------------------------------|---------------------|
| <b>Due</b> No due date | <b>Points</b> 0                   | <b>Questions</b> 10 |
| <b>Time Limit</b> None | <b>Allowed Attempts</b> Unlimited |                     |

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## Attempt History

|        | Attempt          | Time      | Score      |
|--------|------------------|-----------|------------|
| LATEST | <u>Attempt 1</u> | 4 minutes | 0 out of 0 |

Submitted Feb 13 at 8:21pm

Correct!

Question 1

0 / 0 pts

Which company has created the MapReduce framework as a concept?

☐ Oracle

☒ Google

☐ Microsoft

☐ Amazon

Google engineers created the MapReduce framework as a concept.

Question 2

0 / 0 pts

Which company has implemented Hadoop an an open-source version of MapReduce?

**Correct!**

- ☐ Google
- ☐ Amazon
- ☐ Microsoft
- ☒ Yahoo

Yahoo has implemented Hadoop as an open-source version of MapReduce.

**Question 3****0 / 0 pts**

Which of the following is true about the Hadoop file system?

**Not Answered**

- ☒ Each node stores distinct data blocks

This is not correct. Data blocks are replicated across several nodes.

**Correct Answer**

- ☐ Files are append-only
- ☐ Meta node stores metadata
- ☐ Files split in to 1 GB blocks

**Question 4****0 / 0 pts**

What does HDFS stand for?

**Correct!**

- ☒ Hadoop File System

HDFS stands for Hadoop File System.

- ☐ Highly Distributed File System

☐ Highly Disturbed File System

☐ High Definition File System

### Question 5

0 / 0 pts

What is the data type used by Hadoop for a MapReduce process?

☐ Document-based

☐ Column-based

☐ Graph-based

Correct!

☒ Key-value

Hadoop uses key-value data type for a MapReduce process.

### Question 6

0 / 0 pts

What is the output of the Map function in a MapReduce process?

☐ List of table columns

☐ List of network nodes

Correct!

☒ List of key-value pairs

The Map function generates a list of key-value pairs.

☐ List of graph nodes

**Question 7****0 / 0 pts**

Where do mapper nodes save their outputs before serving to reducer nodes?

☐ Central node

☐ Master node

☒ Another node

This is not correct. Mapper nodes save their outputs to local disk first.

Incorrect Answer

☐ Local Disk

Correct Answer

**Question 8****0 / 0 pts**

What does Hadoop do with a task that crashes in a node?

☐ The task is failed.

☐ The task is retried on another node.

☒ The node is rebooted.

This is not correct. Hadoop does not reboot a node just because there is a single crash of a task.

Incorrect Answer

Incorrect Answer

☐ The node is shut down.

**Question 9****0 / 0 pts**

Apache Spark sorts its data processing operations, such as collect, filter, and sort, by building a graph called DAG. What does DAG stand for?

**Correct!**☐ Distributed Asymmetric Graph☐ Derived Apache Graph☒ Directed Acyclic Graph

DAG stands for Directed Acyclic Graph.

☐ Distributed Apache Graph**Question 10****0 / 0 pts**

Which of the following statements about the difference between Hadoop and Spark is true?

☐

Hadoop provides multiple built-in data processing operations such as filter and join.

☐

Hadoop supports in-memory cluster computing.

☐

Hadoop is faster than Spark.

☒

Both Hadoop and Spark can load data from Hadoop File System (HDFS)

Hadoop and Spark are designed to load data from HDFS.

**Correct!**