Unit 5 - Week-4

Assignment-4

The due date for submitting this assignment has passed. **Due on 2019-03-27, 23:59 IST**
As per our records you have not submitted this assignment.

1) Identify the correct choices for the given scenarios: ***1 point***

P: The system allows operations all the time, and operations return quickly
Q: All nodes see same data at any time, or reads return latest written value by any client
R: The system continues to work in spite of network partitions

- P: Consistency, Q: Availability, R: Partition tolerance
- P: Availability, Q: Consistency, R: Partition tolerance
- P: Partition tolerance, Q: Consistency, R: Availability
- P: Consistency, Q: Partition tolerance, R: Availability

No, the answer is incorrect.
Score: 0

Accepted Answers:
P: Availability, Q: Consistency, R: Partition tolerance

2) Cassandra uses a protocol called _____ to discover location and state information about the other nodes participating in a Cassandra cluster. ***1 point***

- Key-value
- Memtable
- Gossip
- Heartbeat

No, the answer is incorrect.
Score: 0

Accepted Answers:
Gossip

3) A _____ is Cassandra's way of mapping a node to a physical location in the network. It helps determine the location of a node relative to another node in order to ensure efficient request routing. The _____can only be used if your network IP allocation is divided along octets in your IP address. ***1 point***

- Partitioner, SimpleSnitch
- Snitch, EC2Snitch
- EC2Snitch, PropertyFileSnitch
- Snitch, RackInferringSnitch

No, the answer is incorrect.
Score: 0

Accepted Answers:
Snitch, RackInferringSnitch

4) Consider the Table temperature_details in Keyspace “day3” with schema as follows: ***1 point***

temperature_details(daynum, year, month, date, max_temp)
with primary key(daynum, year, month, date)

DayNum	Year	Month	Date	MaxTemp
1	1943	10	1	14.1
2	1943	10	2	16.4
541	1945	3	24	21.1
9970	1971	1	16	21.4
20174	1998	12	24	30.7
21223	2001	11	7	15
4317	1955	7	26	16.7

There exists same maximum temperature at different hours of the same day. Choose the correct CQL query to:

Alter table temperature_details to add a new column called “seasons” using map of type <varint, text> represented as <month, season>.
Season can have the following values season={spring, summer, autumn, winter}.
Update table temperature_details where columns daynum, year, month, date bore the following values- 4317,1955,7,26 respectively.
Use the select statement to output the row after updation.

Note: A map relates one item to another with a key-value pair. For each key, only one value may exist, and duplicates cannot be stored. Both the key and the value are designated with a data type.

- cqlsh:day3> alter table temperature_details add hours1 set<varint>;
  cqlsh:day3> update temperature_details set hours1={1,5,9,13,5,9} where daynum=4317;
  cqlsh:day3> select * from temperature_details where daynum=4317;
- cqlsh:day3> alter table temperature_details add seasons map<varint,text>;
  cqlsh:day3> update temperature_details set seasons = seasons + {7:'spring'} where daynum=4317 and year =1955 and month = 7 and date=26;
  cqlsh:day3> select * from temperature_details where daynum=4317 and year=1955 and month=7 and date=26;
- cqlsh:day3>alter table temperature_details add hours1 list<varint>;
  cqlsh:day3> update temperature_details set hours1=[1,5,9,13,5,9] where daynum=4317 and year = 1955 and month = 7 and date=26;
  cqlsh:day3> select * from temperature_details where daynum=4317 and year=1955 and month=7 and date=26;
- cqlsh:day3> alter table temperature_details add seasons map<month, season>;
  cqlsh:day3> update temperature_details set seasons = seasons + {7:'spring'} where daynum=4317;
  cqlsh:day3> select * from temperature_details where daynum=4317

No, the answer is incorrect.
Score: 0

Accepted Answers:
cqlsh:day3> alter table temperature_details add seasons map<varint,text>;
cqlsh:day3> update temperature_details set seasons = seasons + {7:'spring'} where daynum=4317 and year =1955 and month = 7 and date=26;
*cqlsh:day3> select * from temperature_details where daynum=4317 and year=1955 and month=7 and date=26;*

5) What is eventual consistency? ***1 point***

- At any time, the system is linearizable
- At any time, concurrent reads from any node return the same values
- If writes stop, all reads will return the same value after a while
- If writes stop, a distributed system will become consistent

No, the answer is incorrect.
Score: 0

Accepted Answers:
If writes stop, all reads will return the same value after a while

6) True or False ? ***1 point***

Zookeeper is a replicated service that holds the metadata of distributed applications.

- True
- False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

7) Consider the following statements: **1 point**

Statement 1: When two processes are competing with each other causing data corruption, it is called deadlock.

Statement 2: When two processes are waiting for each other directly or indirectly, it is called race condition.

- Only statement 1 is true
- Only statement 2 is true
- Both statements are true
- Both statements are false

No, the answer is incorrect.
Score: 0

Accepted Answers:
Both statements are false

8) ZooKeeper allows distributed processes to coordinate with each other through registers, known as_____ **1 point**

- znodes
- hnodes
- vnodes
- rnodes

No, the answer is incorrect.
Score: 0

Accepted Answers:
znodes

9) _____ a distributed indexer that uses ZooKeeper for coordination, and it is an example of a non- Yahoo! application. **1 point**

- Helprace
- Neo4j
- 101tec
- Katta

No, the answer is incorrect.
Score: 0

Accepted Answers:
Katta

10) True or False ? **1 point**

In zookeeper, ephermal node can't be deleted if the session in which the node was created has disconnected.

- True
- False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

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