1

Question: What is the primary objective of Assignment 3?

A) To learn about database design principles.

B) To gain hands-on experience with replication in Cassandra.

C) To compare different NoSQL databases.

D) To explore data modeling techniques.

Correct Answer: B

2

Question: What is the minimum number of nodes required for the Cassandra cluster in this assignment?

A) One

B) Two

C) Three

D) Four

Correct Answer: C

3

Question: Which keyspace uses the SimpleStrategy for replication?

A) global_data

B) university_data

C) student_data

D) cassandra_data

Correct Answer: B

4

Question: What is the initial replication factor for the university_data keyspace?

A) 1

B) 2

C) 3

D) 4

Correct Answer: C

5

Question: Which replication strategy considers datacenter locations?

A) SimpleStrategy

B) NetworkTopologyStrategy

C) LocalStrategy

D) DatacenterStrategy

Correct Answer: B

6

Question: In Part 2, how many datacenters are assumed when using NetworkTopologyStrategy for the global_data keyspace?

A) 1

B) 2

C) 3

D) Not specified

Correct Answer: B

7

Question: What is the primary key for the students table?

A) name

B) age

C) department

D) student_id

Correct Answer: D

8

Question: What function is recommended for generating unique student_id values?

A) UUID()

B) NEWID()

C) UNIQUEID()

D) RANDOM()

Correct Answer: A

9

Question: What is the purpose of simulating node failures in Part 3?

A) To test the database backup and restore process.

B) To observe how Cassandra handles read and write operations during failures.

C) To stress test the network infrastructure.

D) To measure the maximum throughput of the cluster.

Correct Answer: B

10

Question: Which consistency level guarantees that all replicas have acknowledged the write operation?

A) ONE

B) QUORUM

C) ALL

D) ANY

Correct Answer: C

11

Question: What is one of the factors analyzed when testing different consistency levels?

A) Disk space usage

B) Network bandwidth consumption

C) Latency

D) CPU utilization

Correct Answer: C

12

Question: What type of report is required for submission?

A) Presentation slides

B) Code documentation

C) Summary report with findings and observations

D) Research paper

Correct Answer: C