Ineuron. Assignment-4

Question-1: Explain the difference between cassandra and typical databases.

Ans: Cassandra:

- 1. Cassandra is a high performance and highly scalable distributed NoSQL database management system.
- 2. 2. Cassandra is a NoSQL database.
- 3. 3. It deals with unstructured data
- 4. 4. It has a flexible schema
- 5. 5. architecture with no single point of failure.
- 6. 6. Cassandra handles high volume incoming data velocity.
- 7. 7. In RDBMS there is limited data source means data come from many locations.
- 8. 8. It supports simple transactions.

RDBMS:

- 1.RDBMS is a Database management system or software which is designed for relational databases.
- 2.RDBMS uses SQL for querying and maintaining the database.
- 3.It deals with structured data.
- 4.It has fixed schema.
- 5.RDBMS has master-slave core architecture means a single point of failure.
- 6.RDBMS handles moderate incoming data velocity.
- 7.In Cassandra there are various data source means data come from one/few location.
- 8.It supports complex and nested transactions.

Question-2: what exactly is CQLSH?

Ans:cqlsh is a command-line interface for interacting with Cassandra using CQL (the Cassandra Query Language). It is shipped with every Cassandra package, and can be found in the bin/directory alongside the cassandra executable.

we will go through Cassandra CQLSH. We will learn about CQLSH in Cassandra and how to use it to perform different operations like Documented Shell Commands, Data Definition Commands, Data Manipulation Commands, and CQL Clauses.

So. let's start CQLSH tutorial.

communication medium between Cassandra and the user. CQLSH is a platform that allows the user to launch the Cassandra query language (CQL).

The user can perform many operations using cqlsh. Some of them include: defining a schema, inserting and altering data, executing a query etc..

It basically is a coding platform for Cassandra. Hence, a user can program Cassandra to work according to his requirement.

CQLSH allows the user to use these commands. These commands are basically used for displaying the documentation for different features of Cassandra Query Language Shell. Using these commands, a user can also perform certain tasks.

Some of the commands are:

Help – This command is used to display the documentation on help topics on cqlsh Exit – This command is used to exit from cqlsh prompt.

Describe – This command displays the description of the current cluster and its objects.

Expand – This command is used to expand the output of the query vertically.

Question-3: Explain the Cassandra cluster idea.

Ans:A Cassandra cluster does not have a single point of failure as a result of the peer-to-peer distributed architecture. Nodes in a cluster communicate with each other for various purposes. There are various components used in this process: Seeds: Each node configures a list of seeds which is simply a list of other nodes.

In this Cassandra tutorial, we will go through one of the main parts of the Cassandra database i.e. Cassandra Cluster. Moreover, we will see the meaning of Cluster and different layers in Cluster. This article will guide through the parts of the cluster and the builders associated with it. The cluster is a collection of nodes that represents a single system. A cluster in Cassandra is one of the shells in the whole Cassandra database. Many Cassandra Clusters combine together to form the database in Cassandra.

A Cluster is basically the outermost shell or storage unit in a database. The Cassandra Cluster contains many different layers of storage units. Each layer contains the other.

a. Node Cluster

Node is the second layer in a cluster. This layer basically comprises of systems or computers or storage units. Each cluster may contain many nodes or systems. These systems or nodes are connected together.

They collectively share data through the replication in Cassandra and independently as well. The replication factor in the nodes allows the user to have a redundancy for the data stored. b. Keyspace

The keyspace is the next layer of the storage. In a node, there are many keyspaces. These keyspaces are basically

4. Given an example to demonstrate the class notion?

Ans:-Prepping for the new semester is more than just laying out your first-day outfit. There are assignments, lesson plans, club projects to juggle — not to mention your roommate situation where everyone's got to make sure rent is paid on time.

One of the biggest headaches is keeping all this in one place: who wants to be switching between Canvas, Google Docs, and your inbox all night long?

So we gathered the best Notion templates for students and teachers to organize all this in one place — that way you can focus on getting the most out of school.

Don't forget, Notion's Personal Pro plan is free for students and teachers with a school email. If you run a club or work in school administration, we have discounts for our Team and Enterprise plan too!

Best templates for students

The college student hub that bridges life and work

If you're a busy college student looking for a one-and-done dashboard, this is it. All parts of your life live side-by-side — but each has its own designated section you can customize.

Assignments live in a database so you'll never miss a deadline. Track your personal budget and expenses. Keep your roommates accountable with the shared roommate space. No excuses!

Pro tip: You can do your actual homework in the class assignment database — each assignment is its own page where you can take notes, write drafts, and collect research.

Duplicate the template→

Watch the video walkthrough→

The note-taking setup that helps you remember what you learn

Taking effective notes is more than just copying down what you see on the whiteboard. Youtuber and doctor Ali Abdaal uses Notion to truly internalize what he's learning and organize complicated topics.

In his template, toggles are the star of the show — you can put information inside them, then open or close them as needed. They're particularly helpful when you need to organize the many sub-sections of a lecture. For example, if you're studying anatomy, you can create toggles for each part of the body, then put toggles inside toggles to break it down even further. You can stay focused without getting bogged down in the details, but it's easy to click into a certain topic for more information if you need it.

Ali also talks about how to use Notion to implement active recall and spaced repetition techniques, so we highly recommend watching his entire video walkthrough.

Pro tip: Write questions for yourself while taking notes, then hide the answers in a toggle. When you're reviewing your notes later, you'll already have a built-in way to test yourself.

5.Use an example to explain the object?

Ans:-Definition of Object

In grammar, an object is a noun, pronoun, or noun phrase on which a verb performs an action. It falls at the end of a sentence, and is governed by a verb or a preposition. For example, in the excerpt, "My aunt opened her purse and gave the man a quarter ... It was Valentine's Day and she had baked me a whole box of heart-shaped biscuits" (The Amnesia, by Sam Taylor), "man" and "me" are indirect objects governed by their respective verbs "gave" and "baked."

Types of Object

There are three types of object:

Direct Object

A direct object in a sentence is directly acted upon by a subject such as, "All the actors have played their parts."

Indirect Object

An indirect object in a sentence is the recipient of the action performed by the subject such as, "Pauline has passed her mother a parcel."

Object of Preposition

The object of preposition is a noun or pronoun managed by a prepositions such as, "The cat gets in their house when they are sleeping."

Examples of Objects in Literature

Example #1: Charlotte's Web (by E.B. White)

"She closed the carton carefully. First she kissed her father, then she kissed her mother. Then she opened the lid again, lifted the pig out, and held it against her cheek."

In this example, "carton" and "lid" are direct objects. "Her father," and her mother" are indirect objects because they are the recipients of actions in these sentences.

Example #2: A Tale of Two Cities (by Charles Dickens)

"All these things, and a thousand like them, came to pass in and close upon the dear old year

one thousand seven hundred and seventy-five. Environed by them, while the Woodman and the Farmer worked unheeded, those two of the large jaws, and those other two of the plain and the fair faces, trod with stir enough, and carried their divine rights with a high hand ... With drooping heads and tremulous tails, they mashed their way through the thick mud, floundering and stumbling between whiles, as if they were falling to pieces at the larger joints."

In this passage, there are three underlined objects: "them," "with high hand," and "through the thick mud." The first one is an indirect object, while the second and third are objects of prepositions.

Example #3: Pride and Prejudice (by Jane Austen)

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week... "I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley may like you the best of the party."

In this excerpt, the first "a young man" is an object of preposition; "house" and "themselves" are direct objects.

Example #4: A Modest Proposal (by Jonathan Swift)

"I think it is agreed by all parties, that this prodigious number of children in the arms, or on the backs, or at the heels of their mothers ... As I have been informed by a principal gentleman in the county of Cavan, who protested to me, that he never knew above one or two instances under the age of six, even in a part of the kingdom so renowned for the quickest proficiency in that art."

In this instance, there are just two objects. Both "all parties" and "principal gentleman" are direct objects, on which an action is performed.

Function of Object

The role of an object is very important in writing as well as speaking. It is a person, a place, or thing, on which the verb performs an action. It completes the meaning of a sentence. Without an object, a sentence does not make sense, in terms of the action it shows. The objective is sometimes a direct object, an indirect object, or an object of preposition. In terms of semantic functions, it shifts the meaning of verb forward to itself, rather than backward to the subject. This makes reading flow well, as most sentences with objects and direct objects are written in active voice.

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