Python Advance Assignment - 4

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**1.Explain the differences between Cassandra and typical databases.**

Ans: Cassandra: Cassandra is a high-performance and highly scalable distributed NoSQL database management system. Cassandra deals with unstructured data and handles a high volume of incoming data velocity.

DBMS: Relational Database Management System (RDBMS) is a Database management system or software that is designed for relational databases and uses [Structured Query Language(SQL)](https://www.geeksforgeeks.org/sql-tutorial/) for querying and maintaining the database. It deals with structured data and handles moderate incoming data velocity. In RDBMS mainly data is written in one location also data come from one/few locations and a row represents a single record column that represents an attribute.

**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.

**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.

**4. Give an example to demonstrate the class notion.**

Ans: Notion is an application that provides components such as databases, kanban boards, wikis, calendars and reminders. Users can connect these components to create their own systems for knowledge management, note taking, data management, project management, among others.

**5. Use an example to explain the object.**

Ans: An object is an entity having a specific identity, specific characteristics and specific behavior. Taking a car as an example of an object, it has characteristics like colour, model, version, registration number, etc. It has behaviours like start the engine, stop the engine, accelerate the car, apply the brakes, etc.