**Course Database**

Short Answer

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1. What is Data?is distinct pieces of information

Its a row data

1. What is Information? is a sequence of symbols that carries a message
2. What is Database (DB)? It's a collection of structured information
3. What is the Relation Database Management System (RDBMS)?
   * isa database that stores information in the form of tables called relations
   * Its open source
   * Provides multi user's access
   * Support multi storage engines
   * Works in many platforms
4. Define the importance of Relational Database Management System (RDBMS)?

* Is a software application interacting with user application and database
* It's a tool to manage a data

1. As we all know that there are Two types of Databases. Relational

Database (SQL) AND Non-Relational DB (NOSQL). what is the difference between

* relational databases emphasize structure, whereas non-relational databases prioritize flexibility.
* Relational databases use tables that are all connected to each other.
* Non-relational databases are document oriented.

1. List examples of Relational Database Management System (RDBMS)?
   * MySQL
   * PostgreSQL
   * Microsoft Access
   * SQL Server
   * Oracle …
2. List examples of Non-Relational DB(NoSQL)?

* Elasticsearch
* Apache CouchDB
* Couchbase

1. Define and Describe Structured Query Language (SQL)?

* is a standardized programming language which is used to manage relational database and perform various operations on the data
* Is used to perform to create, update retrieve and delete row data

1. List and describe each of the different subsets of SQL (Mean DDL, DML,

DCL, TCL)?

**DDL** (Data Definition Language)

* allow auto committed
* Save all commands permanently in the Database
* is allowed to perform various operation on Database this includes change the structure of the table
* Creation of table
* Altering table
* Deleting table

**DML** (Data Manipulation Language)

* is allowed to access and manipulate data
* Insert
* Delate
* Update
* Retrieve data from the database
* Is Not allow auto commit

**DCL (Data Control Language)**

* + Commands to grant and take back authority from any database users
  + Allow to control access to the database
  + Grant and revoke access permission

**TCL (Transaction Control Language)**

* + Is used to manage transaction in the Database
  + Allow to be grouped together by
  + Commit
  + Save point
  + rollback and
  + set transaction

1. What is a table in Database (DB)?
   * A table is a data structure that organizes information into rows and columns.
2. What is column and Row(tuples) in the table?

* A table usually contains columns and rows
* columns stand for attributes.
* A single row of a table that has a single record known as a tuple.