W1D1 – LESSON1 ASSIGNMENT:

In this assignment, you are required to do the following:

1. Answer the following questions:
   1. Briefly discuss (i.e. in 2-4 statements or sentences) each of the following terms:
      * 1. Data:- The raw facts collected for the purpose of processing them and get the result form it.
        2. Database:- It is the collection of data and storing them in a certain structured way.
        3. Database Management system:- It is the software, system used to manage the database.
        4. Database application program:-The computer program used within the DBMS.
   2. Describe the main characteristics of the Data approach and contrast it with the File-based approach.

The file-based approach is a traditional way to manage data by the use od manual efforts, papers and pens. There is a less efficient procedure, high chances of data redundancy, isolation of data. In data approach the system is high efficient because it uses the computerized software or system to perform this job. It shares the logically related data to avoid duplication and used by many departments at the same time.

* 1. What are the five components of the DBMS environment and how are they related to each other?

The five components of DBMS are Hardware, software, data, procedure and people. The hardware and software are machine related where are procedure and people are human related components. They are bridged by the data.

* 1. Study the Dream Home case study introduced/presented in this Lesson
     1. And answer the following questions:
        1. What do you think are the main objects that need to be represented in the database?

Clients, properties, owner, sales, customer inquiries, address of the properties, type of properties, etc.

* + - 1. What relationships do you think exist between these main objects?

The owners own the properties.

The clients inquire and buy the properties,

The types and address of properties are used to make the choices of the properties. Etc

* + - 1. For each of the objects, what details do you think need to be stored in the database?

Clients: name, address, contacts, customer ID, inquiries.

Owners: name, address, contacts, related properties.

Properties: Type, number of rooms, price,

Sales: number of properties, transaction amount, sold properties

* + - 1. Give at least 3 queries you think will be required.

Properties located in certain area?

Properties below certain price?

Properties having certain rooms?

1. Perform the following tasks:
   1. Obtain and install the MySQL database (dbms) product, on your computer.
   2. Using the MySQL dbms which you have installed, complete the following sub-tasks:
      * 1. Start the MySQL database server instance (if it is not already running)
        2. Launch open the MySQL Shell and execute the following shell commands (Note: For each command you successfully execute, take a screenshot of the output and add it to your Assignment1 answers document, which you will submit):
           1. MySQL JS > \status

(This command will display information about the current global session. Since no connection has been made at this time, it will simply print the MySQL Shell version).

Text

Description automatically generated

* + - * 1. MySQL JS > \connect root@localhost

(This command will open a connection to the database server as the super-user named, root. Note: You will be prompted to enter the correct password for “root”).

Text

Description automatically generated

* 1. MySQL JS > \sql

(This command will switch the Shell session from JavaScript processing mode to SQL processing mode).

Graphical user interface, text, application, website

Description automatically generated

* 1. MySQL localhost:33060+ ssl SQL > show databases; (This will display a list of the Databases found in the MySQL DBMS instance).

A picture containing graphical user interface

Description automatically generated

* 1. MySQL localhost:33060+ ssl SQL > use world;

(This will set the default/active schema to “world”. Note: schema here means the database).

A screenshot of a computer

Description automatically generated with medium confidence

* 1. MySQL localhost:33060+ ssl SQL > show tables; (This will display a list of all the tables in the world schema (database)).

Text

Description automatically generated

* 1. MySQL localhost:33060+ ssl SQL > desc country; (This will display the schema/specification for the table named, country).

Text

Description automatically generated

* 1. MySQL localhost:33060+ ssl SQL > desc city;

(This will display the schema/specification for the table named, city).

A screenshot of a computer

Description automatically generated with medium confidence

1. Carefully examine the schema/specifications for both the table named, country and the one named, city. Is there any relationship(s) between the two tables? Yes or No? If yes, describe the relationship(s) which you can identify.

The country code and population are common.

1. Launch open the MySQL Workbench GUI tool and take a screenshot of it.

Graphical user interface, text, application, email

Description automatically generated