CSE370

ASSIGNMENT

(1)

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Section: 04

Ans. to the ques. No:- 1

(a) A conceptual schema describes the details of the physical storage structures. Ans: False

(b) The database schema includes descriptions of the database structure, data types and constraints. Ans: True

(c) Physical Data Independence is the capacity to change the conceptual schema without having to change the external schema. Ans: False

(d) A database system includes both DBMS software and the data. Ans: True

(e) SQL stands for Standard Query Language.

Ans: False

Date: ...../...../.....

Answer to the ques. No.-2

Two differences between the database schema and database state are as follows:

Database Schema	Database state
(1) Database schema is the description of a database. The description contains the structure of database data types, constraints, etc.	(1) Database state refers to the contents of a database. The actual data stored in database at a particular moment in time.
(2) Database schema does not require changes frequently.	(2) The database state changes every time the database is updated.

These are the two differences between database schema and the database state.

Answer to the ques. No.- 3

The advantages of the database approach of managing data over a file-based approach are as follows.

(1) No redundant data: In file based approach, there are a lot of data which are redundant. Wheres, in database approach, redundancy is removed by data normalization. No data duplication means saving storage space and improving access time.

(2) Easy access to data: Database system manages data in such a way so that the data is easily accessible with fast response time.

(3) Easy recovery: Database system keeps the backup of data. That is why, data recovery is very easy.

These are the three advantages of the database approach.

Answer to the ques. No:-4

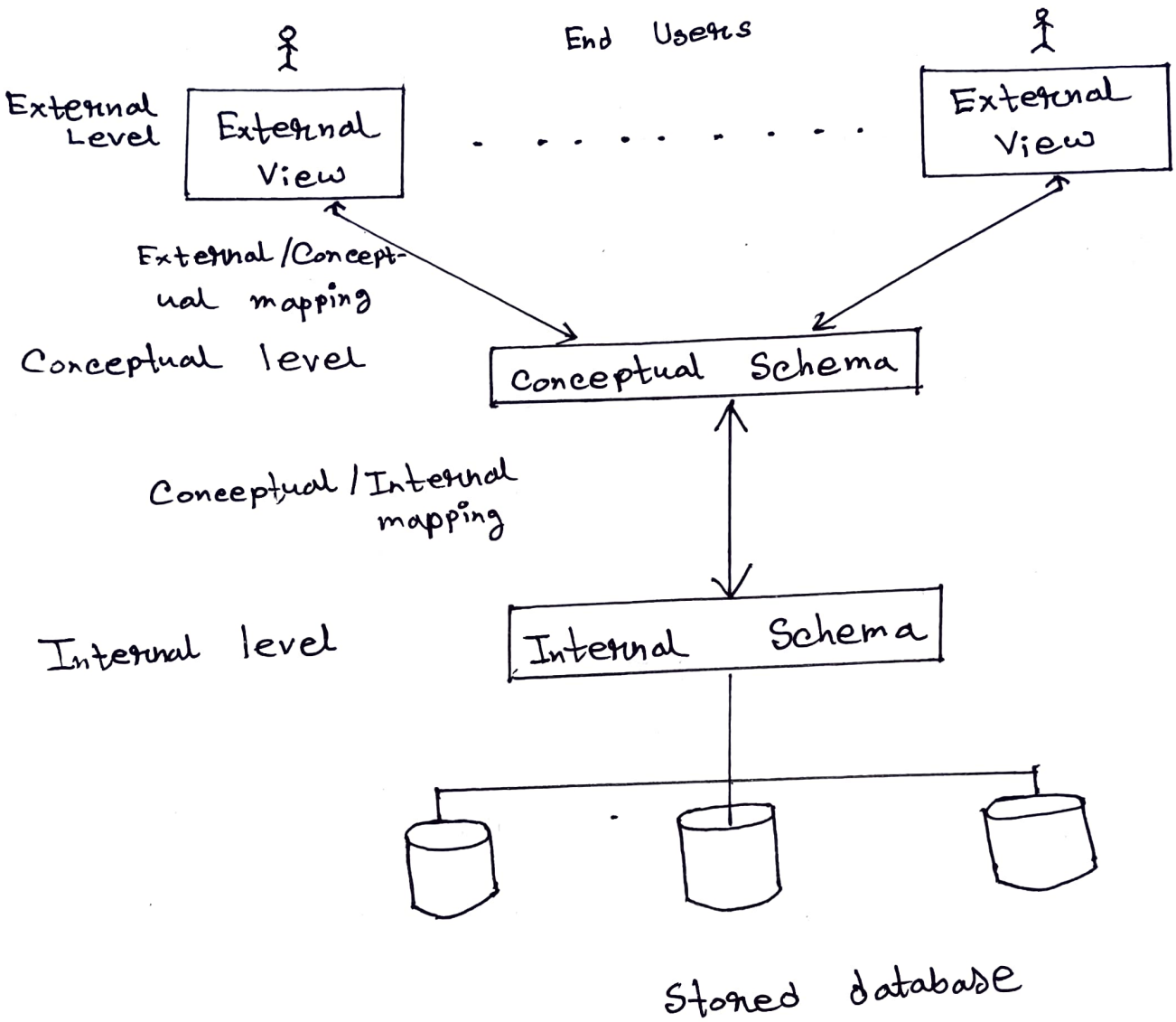
The three-schema architecture defines DBMS schemas at three levels.

(1) Internal Schema: The schema is used at the internal level to describe physical storage structures and access paths. It uses physical data model. This schema is used by the engineers and database administrator.

(2) Conceptual schema: The conceptual schema describes the database structure at higher level, meant for the users. It hides the details of physical storage structures and concentrates on describing entities, data types, relationships and constraints. Conceptual schema uses conceptual or an implementation data model.

(3) External Schemas: The external schema varies from user to user. This level only describes the part of the database that a particular group is interested in and hides the rest of the database from that user group. The schema usually uses conceptual data model.

The diagram of the three schema architecture:



Answer to the ques. No:- 5

Structured query Language is divided in 2 parts.

DDL and DML.

DDL: DDL stands for Data Definition Language. The language is used to define database schemas. The DDL statements is used to identify description of the schema, to make a structure of the database and store the schema description in the DBMS catalog.

DML: DML stands for Data Manipulation language. The language is used to manipulate, specifically retrieve, insert, delete and modify data. To work with data's, to modify or to ~~mai~~ manipulate data we have to use DML.

DML's embedded languages are Java, VB, C++, etc.

(a) Create a table name Students with columns – id, name, cgpa, department, email, age. Ans: DDL

(b) Change the name of the id column to student_id. Ans: DDL

(c) Update the CGPA of the student whose ID is 210933 from 3.9 to 3.92. Ans: DML

(d) The data type of department was made int by mistake, change it to char(3). Ans: DDL

(e) Retrieve the information of all students with CGPA greater than 3.5. Ans: DML

(f) Insert the information of a new student named "Shaomin ~~Amin~~ Anam". Ans: DML

(g) Delete the information of a student with ID 201892. Ans: DML

(h) Delete the column 'age'. Ans: DDL