

Date
22.04.2020

Computer Science 2nd Year

Subject - 'DBMS'

UNIT 8 (Security)

Authorization

Authorization is a privilege provided by the database administrator. users of one database can only view the contents they are authorized to view. The rest of the database is out of bound to them.

The different permissions for authorization available are .

- 1) Primary Permission :- This is granted to users publicly and directly .
- 2) Secondary Permission :- This is granted to groups and automatically awarded to a user if he is a member of the group .
- 3) Public permissions :- This is publicly granted to all the users .
- 4) Context sensitive permission :- This is related to sensitive Content and only granted to a select users .

The categories of authorization that can be given to user are :-

- 1) System Administrator :- This is the highest administrative authorization for a user

users with this authorization can also execute some database administrator command such as restore or upgrade a database.

2) System Control :- This is the highest control authorization for a user. This allow maintenance operations on the database but not direct access to data.

3) System Maintenance :- This is the lower level of system control authority. It also allow user to maintain the database but within a database manager Instance.

4) System Monitor :- using this authority, the user can monitor the database and take snapshots of it.

Database (Integrity) - (Integrity Constraints)

Data Integrity in the database is the correctness, consistency, and completeness of data.

Data Integrity is enforced using the following three Integrity Constraints:

1) Entity Integrity :- This is related to concept of primary keys. All tables should have their own primary key which should uniquely identify a row and not be NULL.

Referential Integrity :- This is related to the concept of foreign keys. A foreign key is a key of a relation that is referred in another relation.

Domain Integrity :- This means that there should be a defined domain for all the columns in a database.

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24/04/2020

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