DATABASE

LECTURE 10 / INTRODUCTION TO DBMS FUNCTIONS

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[ANSWERED]

1) ... is a software used to manage data from a database.
   a) SQL
   b) Database
   c) DBMS *
   (Slide 3)

2) One of the popular databases is
   a) SQL
   b) MySQL *
   (Slide 3)

3) DBMS provides many operations e.g. creating a database, storing in the database, updating an existing database, delete from the database.
   a) T *
   b) F
   (Slide 3)

4) ... is a system that enables you to store, modify and retrieve data in an organized way. It also provides security to the database
   a) SQL
   b) Database
   c) DBMS *
   (Slide 3)

5) DBMS advantages
   a) Redundancy is controlled.
   b) Unauthorized access is restricted.
   c) Providing multiple user interfaces
   d) Enforcing integrity constraints
   e) Providing backup and recovery.
   f) All of the above *
   (Slide 4)

6) is referring to the accuracy or correctness of the data in database.
   a) Security
   b) Integrity *
   c) Concurrency
   d) Recovery and Backup of data
   (Slide 5)

7) are basically Boolean expressions that must evaluate to TRUE.
   a) Security
   b) Integrity *
   c) Concurrency
   d) Recovery and Backup of data
   (Slide 5)

8) Integrity constraints are specified and enforced at different times
   a) When the DBA or end user defines a database schema, he or she species the ICs that must hold on any instance of this database.
   b) When a database application is run, the DBMS checks for violations and disallows changes to the data that violate the specified ICs.
   c) Both of them *
   (Slide 5)

9) In IC (In some situations, rather than disallow the change, the DBMS might instead make some compensating changes to the data to ensure that the database instance satisfies all ICs
   a) T *
   b) F
   (Slide 5)

10) In any case, changes to the database are allowed to create an instance that violates any IC.
    a) T
    b) F *
    (Slide 5)

11) IC
    a) Constraints that are inherent in the data model.
    b) Constraints that can be directly expressed in schemas of the data model
    c) Constraints that cannot be directly expressed in the schemas of the data model
    d) All of the above *
    (Slide 6)

12) We call these inherent model-based constraints
    a) Constraints that are inherent in the data model. *
    b) Constraints that can be directly expressed in schemas of the data model
    c) Constraints that cannot be directly expressed in the schemas of the data model
    (Slide 6)

13) <mark>We call these implicit constraints.</mark>
   a) Constraints that are inherent in the data model. *
   b) Constraints that can be directly expressed in schemas of the data model
   c) Constraints that cannot be directly expressed in the schemas of the data model
   (Slide 6)

14) <mark>typically by specifying them in the DDL (data definition language, We call these schema-based constraints)</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model *
   c) Constraints that cannot be directly expressed in the schemas of the data model
   (Slide 6)

15) <mark>typically by specifying them in the DDL (data definition language, We call these explicit constraints.</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model *
   c) Constraints that cannot be directly expressed in the schemas of the data model
   (Slide 6)

16) <mark>must be expressed and enforced by the application programs</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model
   c) Constraints that cannot be directly expressed in the schemas of the data model *
   (Slide 6)

17) <mark>We call these application-based</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model
   c) Constraints that cannot be directly expressed in the schemas of the data model *
   (Slide 6)

18) <mark>semantic constraints</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model
   c) Constraints that cannot be directly expressed in the schemas of the data model *
   (Slide 6)

19) <mark>business rules.</mark>
   a) Constraints that are inherent in the data model.
   b) Constraints that can be directly expressed in schemas of the data model
   c) Constraints that cannot be directly expressed in the schemas of the data model *
   (Slide 6)

20) DBMS is managed by administrators who are determined to protect the database from all the threats in the database environment.
a) T *
b) F
(Slide 7)

21) They provide only required access to users so that some will have only read access and some will have both read and write access in the database. Some users can also edit the database, and all these accesses are provided based on the roles of the users
a) Security *
b) Integrity
c) Concurrency
d) Recovery and Backup of data
(Slide 7)

22) Administrators thus secure the DBMS from … threats
a) internal
b) external
c) Both of them *
(Slide 7)

23) refers to the process of determining what a user can do.
a) Authentication
b) Authorization *
(Slide 8)

24) It occurs every time a user attempts to perform any operation within a database
a) Authentication
b) Authorization *
(Slide 8)

25) refers to the process of identifying a user.
a) Authentication *
b) Authorization
(Slide 8)

26) It occurs during both initial login and each time a user attempts to use a database for the first time during a session
a) Authentication *
b) Authorization
(Slide 8)

27) A Security policy is the statement of the security that the system is expected to enforce
   a) T *
   b) F
   (Slide 9)

28) Every organization should have a publication that prescribes the security policies and procedures that must be followed
   a) T *
   b) F
   (Slide 9)

29) Security policies should define:
   a) The specific rules
   b) Who is responsible for enforcing them.
   c) What procedures should be followed when requesting exceptions to policy or when reporting and responding to expected security breaches.
   d) All of the above *
   (Slide 9)

30) If multiple users are logging into the same database simultaneously, the database does not show any lagging while running the queries and returns the results in the same speed.
   a) T *
   b) F
   (Slide 10)

31) If multiple users are logging into the same database simultaneously, the database does not show any lagging while running the queries and returns the results in the same speed.
   a) Security
   b) Integrity
   c) Concurrency *
   d) Recovery and Backup of data
   (Slide 10)

32) This feature of concurrency helps multiple users to work and get results if it is a large database.
   a) T *
   b) F
   (Slide 10)

33) As a result of Concurrency, the work is completed ….
   a) slower
   b) faster *
   (Slide 10)

34) There is only one algorithms to make different users work on the same database at the same time.
a) T
b) F *
(Slide 10)

35) DBMS is managed in such a way that the database processes the backup automatically and recovers the data if any data loss happens.
a) T *
b) F
(Slide 11)

36) DBMS is managed in such a way that the database processes the backup … and recovers the data if any data loss happens.
a) manually
b) automatically *
(Slide 11)

37) Also, … are present in the database to know the operations in DBMS so that it is easy to know what changes have been made to the database and who have done the changes
a) pros
b) logs *
c) loss
(Slide 11)

38) Automated methods are in place for DBMS to create and manipulate the data.
a) T *
b) F
(Slide 11)

39) Once the initial setup is done, it is difficult to do the data insertion and backup of data.
a) T
b) F *
(Slide 11)

40) Nowadays, there are routine data checking and restoring in the database
a) T *
b) F
(Slide 11)

41) <mark>Whenever there is a failure in the database, data is recovered easily, which again proves the database's integrity in the system.</mark>
   a) Security
   b) Integrity
   c) Concurrency
   d) Recovery and Backup of data *
   (Slide 11)

لا تنسونا من صالح دعائكم

اللهم صل على محمد وعلى آل محمد، كما صليت على إبراهيم وعلى آل إبراهيم إنك حميد مجيد، اللهم بارك على محمد وعلى آل محمد كما باركت على إبراهيم وعلى آل إبراهيم إنك حميد مجيد

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