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OS ASSIGMENT 1 SEM II

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1) What is DBMS? explain its advantages.

Ans: A database management system is a collection of programs that manages the database structure and controls access to the data stored in the database.

Advantages of DBMS.

1) Reduction of Redundacies.
centralised control of data and effectively. reduces the total amount of data storage required.

2) Elimination of inconsistencies.
The main advantage of avoiding duplication. is elemiriting of inconsistencies that tend to be present in redumtant data files.

3) Shared data.
A database allows the sharing of data under its control by any number of application for the public relations and payrolls departments.

4) Integrity.
centralised control can shore ensure that adequate checks are incoparated in the DBMS to provide data integrity.

5) Security
Data is of cistical importance to an organization and may be confidential.

6) Data idenpendency.

Q2 What is data abstraction? Explain its levels.

Ans Data abstraction defends to providing only essential information to the outside world and hiding these background details i.e. to represent the needed information in program without preventing.

Logical level :- This is the middle level of it describes what data is stored in database.

View level :- Heighest level of data abstraction.

Q3 Who is data administrator? explain the various function of DBA.

Ans. A person who has central control of both data and the programs.

Function of DBA:

DBA creates database schema by executing DDL statements.

Storage structure access method:
database tables of indexes are stored in flat files, heaps.

The DBA carries out changes to the existing schema by physical organisation.

Granting authorization for data modification
DBA provides different access rights to the user according to their level.

Q4] why data models are used in database? explain its components.

Ans Data models gives an idea that how the final system will look like after its complete implementation. It defines the data elements and the relationships between data elements.

Q5] Define.

a) Entity: An entity is a person, place, thing or event about.

b) Attribute: An attribute is the characteristic of any entity.

c) Relationship: A relationship describes an association of an entity.

d) Tuple.: each row in a relationship contains unique value which is known as tuple.

E) Degree: The total number of attributes which is in the relation is called the degree of relation.

Q6) Note on:

a) primary key:
A primary key must contain unique values.

b) alternate key: It is a column group of column in a table that uniquely identify row on table.

c) candidate key: is a set of attribute that uniquely identify tuples in tables.

d) Strong Enity.
:) always has a primary key.
:) represent a rectangle symbol.
:) contain primary key represented by underline.

d) Generalization:
form of abstraction that specify two or more entities that share common attributes can be generalized into a higher level.

Q7] Explain ~~rel~~ relationship with its types:

Ans: Binary relationship:
relationship between two entites co-ordinated contains the max number of relationship instance.

One to One : when only one domain is fixed with the range of one function.

One to many: when one function or a program is associated with one or more domains.

many to one : many to one is apsolutely a vice-versa of one-to-many function.

Recursive Relationship: when an entity is related with anyting and itself it is called recursive.

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Q8] explain DDL and DML comands.

Ans] DDL commands

-> create. : creates tables and column in it.
-> Alter. : Alter objects of database.
-> DROP. : Delets. objects from the database

DML COMMANDS:

-> SELECT : used to retrive. data from the tab
-> INSERT: insert new data from table.
-> UPDATE: update or modifies. data in tab