DATABASE & WEB
Tutorial - 1

Ans 1

- Data: - The raw facts and figures or the collection of facts about any entity

- Persistent Data: - The data which survived after the process with which it was created has ended

- Information: - Processed organized, useful and meaningful data

- Database: - Collection of related pieces of heterogeneous data organized together to obtain a useful things.

- Information: - Processed organised, useful & meaningful

- DBMS: - Software package or set of computer program designed to store and manage databases which help in abstraction purpose of data.

Example - Consider three fields: Name, enroll and batch of a student:-

a) Each Column (name, Enroll & Batch) is data
b) Table build from these three columns is data
c) One tuple of each type of field is Information
d) Table having one column in which all the three fields are present in Information base.

Ans 2 The organisation having larger data will be using DBMS because larger datasets requires abstraction, security & integration of data.

Ans 3 Web based database management system provides simplicity, standardization, innovative and graphical UI, enhance level of abstraction (i.e. easier command line)

Yes it is important to use user friendly interface, so that abstraction becomes easy.

Ans 4 Old file processing system had few drawbacks due to which we had to move to DBMS as described:

i) Uncontrolled duplications:- Data redundancy waste the memory space & hard to update

ii) Inflexibility:- Hard to change the data hence hard to change the program.

iii) Inconsistant data

iv) Limited data sharing

v) Data integrity problem

vi) Concurrent access anomalies

Ans 5 There are 3 types of users:

i) Sophisticated Users :- They form request in database query language

ii) Specialized Users :- They write specialized database that don't fit tradational data processing framework

iii) Naive users : They invoke one of the permanent application programs that have been written previously

" Role of administor :

i) Designing the logical schema & creating the structure of entire database

iv) Moniter usage & create necessary index structural to speed up query execution

iii) Renoke data access permission to others

Ans 6 OLTP: It refers to Online Transaction Processing. It support database query such as insert, update and delete information from the database. These systems also support Online Transaction & process query quickly on the Internet.

Ans 7 i) Security Facility :- Company should pay for it because data will only be accessible to IT administer, so it requires authentication.

ii) Concurrency Control :- Company should not pay for it because this requires a multiuser system & in this company, the database will run only in one PC.

iii) Crash Recovery :- Company should not pay for it because it is mainly used when transaction occur. and in this organisation, no such transaction is going to be done.

iv) A new Mechanism :- Company should pay for it because it allows users to view the data.

v) A query language :- Company should pay for it because this language supports to insert, update & delete this data in the database

Ans 8 a) Three level of Abstraction are :-

i) physical level : It describes details of how data is stored, files, indices etc or random access disk system

ii) Conceptual level: It describes data stored in database and relationship among the data. It hides the details of the physical level