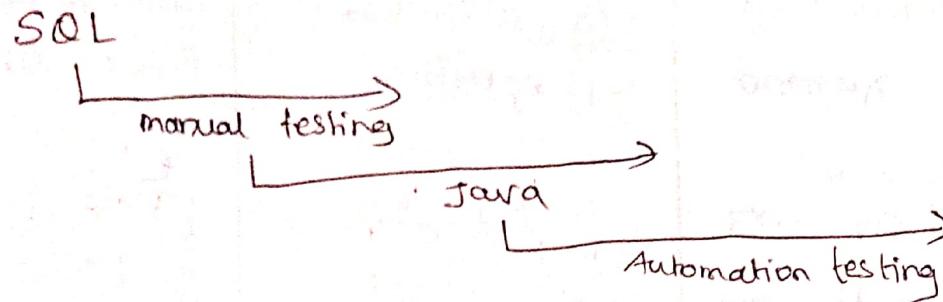


Trainer Name:- Ajit  
Trainer mob.no:- 9964741615  
Trainer Insta:- ajit\_s\_g

## (STRUCTURED QUERY LANGUAGE)



DAY- 1 (30th Nov)  
SQL

MY NAME :- SARAVANAN.

①

Manual	Automation
* 50 clothes washes by a woman takes long time	* 50 clothes washes by a Washing Machine takes less time.

### 1.) why we need SQL?

Note : Before we learn about the need of SQL, we have to know about the uses of Application, Data, DBMS.

#### ① what is Application?

Explanation ① → Application is a set of program or block of codes to perform a specific task.

Eg for application:- whatsapp, facebook, web browser, etc.

Explanation ② → Application is a list of program which helps us to perform a particular task.

## Types of Application:-

(2)

There are two types of application:

1. online application (need internet)
2. offline application (no need of internet)

## Types of online application:-

1. Standalone application
2. web application
3. client / server Application (Mobile Application)

## What is standalone application? -

A standalone application is one that runs entirely on the device without internet connection / with internet connection but the application can accessible by only one person.

Ex:- MS paint, calculator, MS office, etc

MS paint is a application, which cannot be accessible by another person when a person uses

## Advantages of standalone application:-

\* faster in access

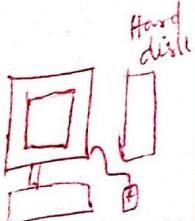
\* Secured from data hacking and virus.

## Disadvantages:-

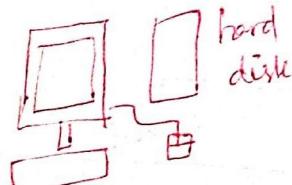
\* Single user only access at a time, \* Installation is required.

Diagram for

## standalone application:-



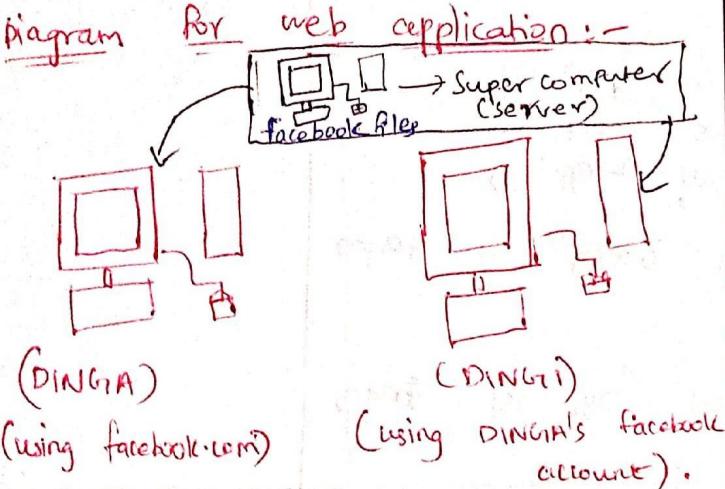
DINRA (say)  
(using MS paint)



DINRI (say)  
(using MS paint)

Here DINRA & DINRI both are using MS paint and both have MS paint application in Separate hard disk, so both cannot be

able to access other systems file.



Here DINGA & DINGI both are using facebook and both are using DINGA's account in web browser.

facebook is accessible by both DINGA & DINGI sometime because facebook is installed in Super computer not in DINGA's & DINGI's harddisk.

## (2) what is web application?

\* Any application which is opened through a browser is known as web application

Eg:- Facebook, whatsapp, Instagram, etc

Eg for browser:- Chrome, MS edge, Opera, etc.  
(multiple)

\* Facebook can be accessible in any device at a time

(3)

## (3) clients server application:-

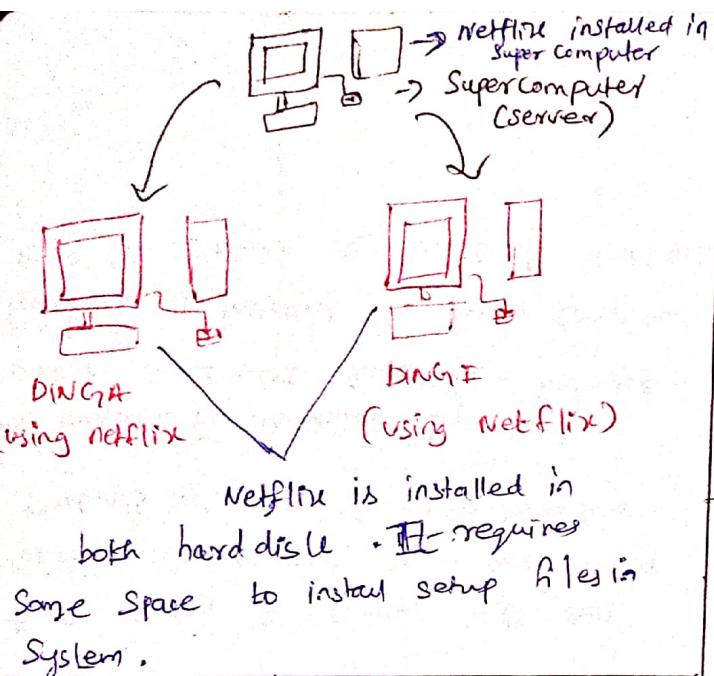
Before we know about client server application, we have to know about Server.

what is Server?

It is nothing but a Super computer where in all the applications are installed and can be accessed by anyone [high configuration].

what is high Configuration?

In Super Computer, powerful hardware like ram, graphics card, processor used for fast access and also to solve Server busy problems.



what is client Server application :- (Mobile Applications). (4)

In client server , application / Standalone application / Part of application is installed onto the client system and the remaining part is installed onto the server Machine Eg:- Facebook, YouTube, Netflix, Hotstar, etc.

DAY - 2 (1<sup>st</sup> DEC)

what is the common thing played a role in all the types of application?  
Ans:- Data (Common thing is data).

what is data?

- is data a information? X
- is data a set of points? X
- is data a collection of information? X

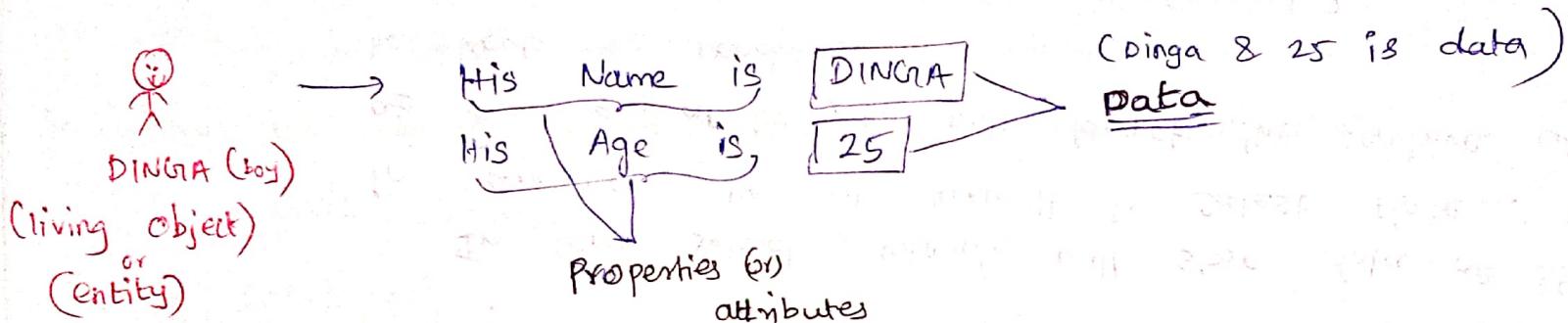
Ans:-

proper definition: *not explainable*

Data is a raw fact which describes properties or attributes of an object or entity.

(5.)

## Explanation of data with diagrams:-



Name	Age
His Name is Dinga	25
Dinga	25

wrong X

Correct ✓

Data.

(6)

where to store the data).

in pages? X no

in pendrive? X no

Why?

Ex:- Before 10, 20 years:

\* In government school, Students files and Students information, marksheets are kept as pages, paper and stored in lockers.

\* If fire happen in a school, all the papers will be burned.

is data secured in pages?

Ans: no.

So, where can I store the data safely?

pendrive? X no

Why?

In some school, principle will store data of students in pendrive. He will keep it in safest place. But at the age of 60, he will forget the pendrive where he kept the pendrive.

Is storing data in pendrive is secured?

Ans:- no, not secured.

In 2009 2001, If we lost SimCard, our contacts also will be lost. (F)  
But nowadays contacts are stored in google drive.  
If we lost Sim Card, we do not worry about it.

So, where we can store the data safely and securely?

Ans:- DATABASE

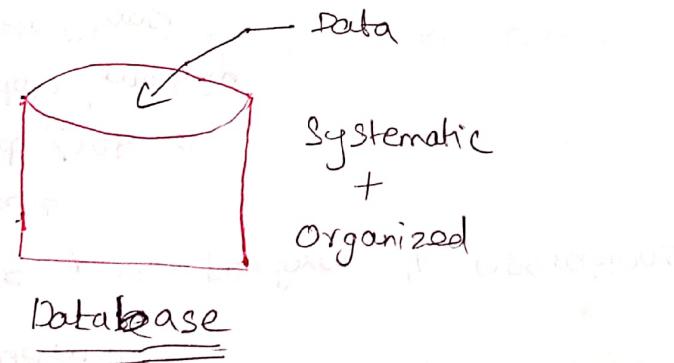
What is Database?

Database is a place or a medium where we store the data in systematic and organized manner.

Ex:- library  
(for systematic & organised) In library, we see all the books arranged category wise

like physics books separately, maths books separately and also books will be easily accessible.

Pictorial representation of database.



## Operations in database:-

(8)

In database, we perform 4 operations

- 1.) Create
- 2.) Read / retrieve
- 3.) update / modify
- 4.) Delete / drop

Ex:-

1. Create - Creating a new contact in Contacts
2. read - Searching a contact in Contacts
3. update - Updating a contact in Contacts
4. Delete - Deleting a contact in Contacts.

We call these operations as CRUD operation.

To maintain and manage the database, we have two process.

- \* Manual process
- \* Software process (Automatic process).

Manual process:-

- \* Entering data of students to Excel by typing is manual process.
- \* It takes lots of time

Automatic process:-

9

- \* Entering data of students to excel by using software that is DBMS called automatic process.
  - \* It takes less time to complete the tasks.

## DBMS (DATABASE MANAGEMENT SYSTEM):

- \* It is a software which is used for maintain and manage the data.
  - \* It gives security and Authorization.
  - \* Security and Authorization are the two important key features in DBMS.
  - \* In DBMS we store data in the form of files.

To communicate with a Tamil person, we have to learn Tamil.

To communicate with a Hindi 'known' person, we have to learn Hindi for

\* like that to communicate with DBMS } we have to learn query language

To store 100, 1000, 10000 datas, we need Relational Database Management System  
RDBMS (10)

RDBMS ( Relational Database Management System ).

\* It is a updated version of DBMS

\* Here we store data in the form of table

Explanation:-

It is a type of DBMS Software, where we store the data in the form of table

\* To communicate with RDBMS we need to learn SQL.

SQL means STRUCTURED QUERY LANGUAGE.

SQL stands for Structured Query Language.

What is DBMS

\* data stored in the form of file

\* Query language need for communication

\* old language

\* program type of approach

Vs

What is RDBMS

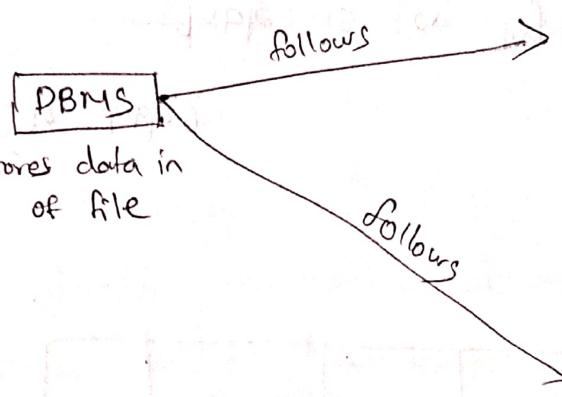
\* Table

\* Structured Query Language

\* New language.

### DAY-3 (2nd DEC)

- \* Table is a Relational Model
- \* Relational model was designed by E F Codd



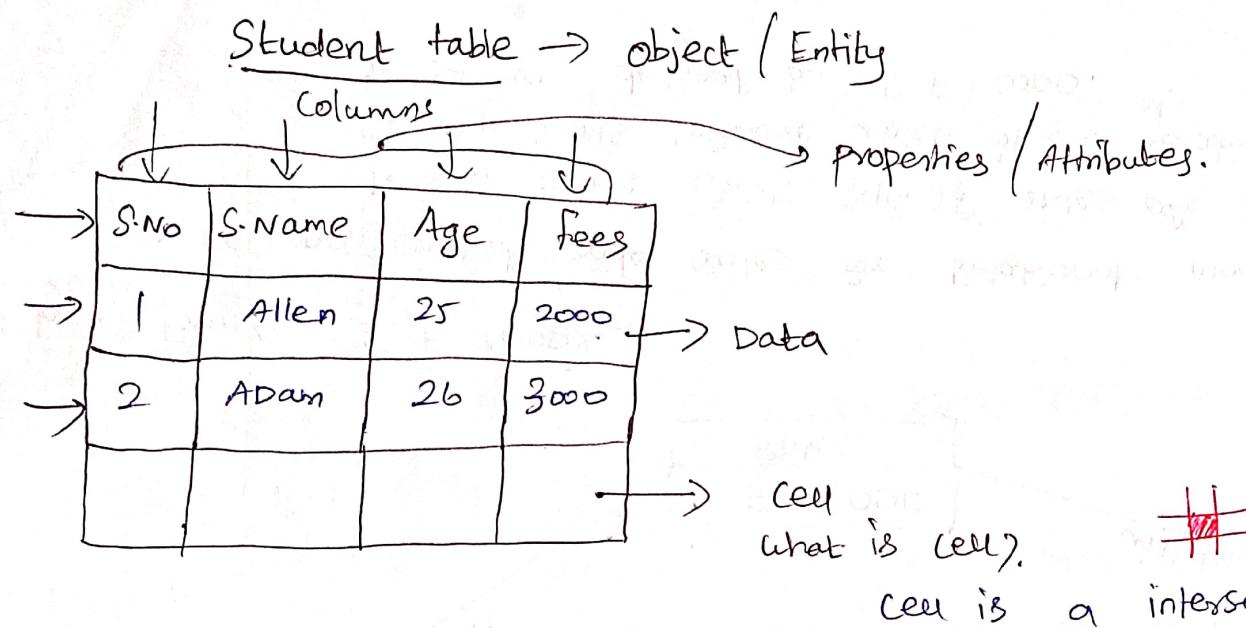
Microsoft — MySQL  
Oracle — Oracle SQL  
(Java) — Jdbc  
php — MySQL  
— phpadmin

### Edgar Frank (E F Codd):-

\* EF Codd created/made rules for Relational model which are

1. Any DBMS which follows rules of EF Codd will become RDBMS
2. Any DBMS Software which follows Relational model will become RDBMS
3. It was designed by E F Codd.

## Details of Relational model:



what is table?

Table is a logical organization of data in the form of row & column

Rules of ER :-

Rule (1):- A data entered into a cell must be a single valued data.

Eg:-

Emp.No	E.Name	Mob-No
1	Allen	9998887776
2	ADam	9998887775/9998887773

→ Two values not allowed