

File storage and database

Textual - Notepad, Words...  
Col. - Excel

1. Redunacy - duplication of data

Emp : Ravi Kumar - 4 different  
Ravi Krishna - find all the 4 places -  
update

2. Retrieval - line by line

Table format: Rows and Cols

Emp. data - 5 emp  
emp1, emp2, emp3, emp4, emp5  
What are attributes / information - Columns?  
- name, age, dob, address

name	age	dob	address
-	↕	↕	↕
-			
-			
-			
-			

Col wise conditions

1. age - > 18
2. format ->  
dob - YYYY-mm-dd
3. length
4. mandate
5. unique

	id	name	age	dob	city
te	1	ashok raj	30	1990-01-30	Trichy
te	2	pandirajan	27	1990-01-30	Trichy
te	3	vignesh	25	1990-01-30	Trichy

id: number  
name: varchar (ASCII) - Alph, Num,  
Symbols, whitespaces  
age - number  
dob - date (datetime, time)  
city - varchar

Database - SQL - Queries

SQL - Str. Query Language

Talk with database - SQL

Data types ---  
String, number, date,  
boolean....

Datbase Server - snowflake ✓

- (n) database ✓
- (n) schemas ✓
  - (n) tables
  - (n) rows and cols
  - (n) data

```
1 create or replace TABLE
2 COMPANY.EMP_DETAIL.EMPLOYEE (
3   FIRST_NAME VARCHAR(16777216),
4   LAST_NAME VARCHAR(16777216),
5   AGE NUMBER(38,0),
6   DOB DATE
7 );
```

create table employee (  
first\_name varchar(50),  
last\_name varchar(50),  
age number (3, 0),  
height number(3, 2)  
dob date  
);

number (3, 0)  
30 (allowed)  
100 (Allowed)  
100.40 (not allowed)  
  
number (38, 37)

Ticketing tool :  
Tkt No. --> not repeat / unique  
Movie Tkt - 700 seats- tkt no. - 1 seat  
Railway

describe table employee;  
show tables;

alter table employee add column weight  
number(3,2);

alter table employee drop column age;

alter table employee rename to team;

describe table team;

DCL - Data Control Lng.  
Users -> Database  
Permission  
Ravi - Create - certain tables  
Hari - Any command - on certain tables  
Kumar - Any ccommands on any tables

Directly on Snowflake --

1. Python code - Panda
2. Excel - importing to snowflake

Datbase Server

- (n) database
- (n) tables
- (n) rows and cols
- (n) data

Datbase Server

- (n) database
- (n) tables
- (n) rows and cols
- (n) data

varchar (1) - d,g,h  
varchar(5) - abcde  
varchar(10) - 10chars

Number (38, 0) -  
- whole number -- 10, 23, 5, 56  
- decimal number -- 12.45, 20.05  
- Max Left - 38  
- Max right - 37

Date - no special marking  
- fixed model  
- yyyy-mm-dd Eg: 2023-10-6  
DateTime, Time, boolean

Create cmd with Primary key

```
create table employee (  
emp_no number(5, 0) primary key,  
first_name varchar(50),  
last_name varchar(50),  
age number (3, 0),  
height number(3, 2),  
dob date  
);
```

Create  
Alter  
Drop  
→  
DDL - Data Definition  
Lng. -- Columns, data  
types, table names

Insert  
Update  
Select  
Truncate  
Delete  
-- Where  
→  
DML - Data Manipulation  
Lang.  
- Actual information