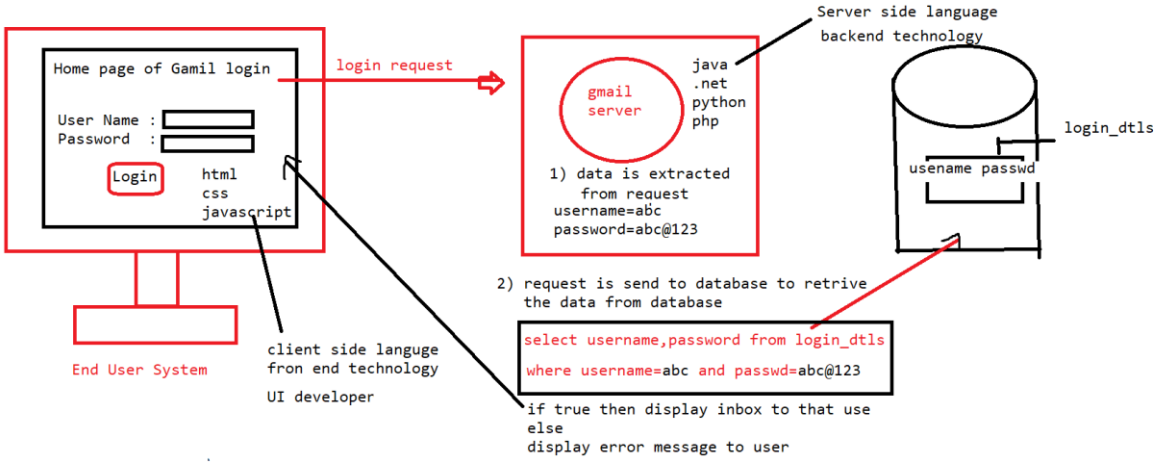
SQL Day 1

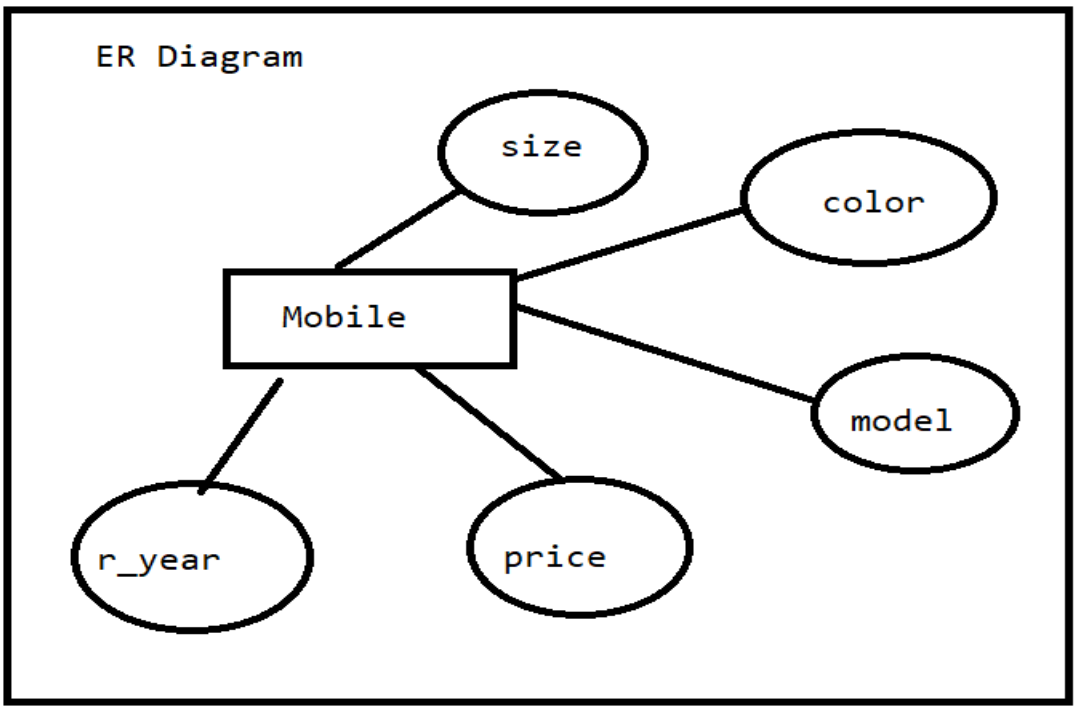
Client Server request and Response flow




```
Mobile(product_code, size, price, model,release_year,make, color)

Here Mobile is entity and its properties are product_code, size , model
release_year etc

From this information ER digram will be drawn
```

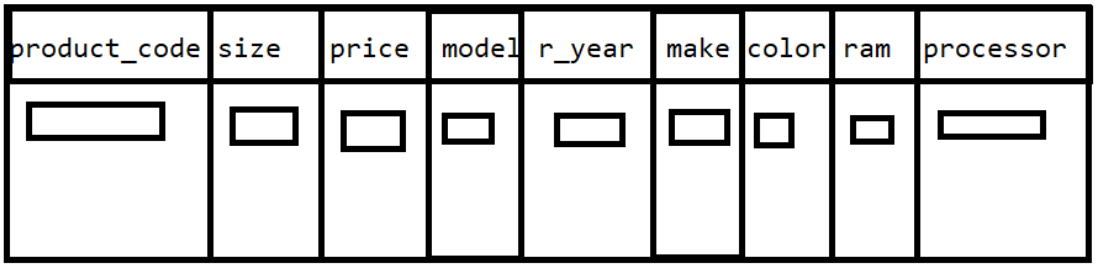


With the help of this ER digram database is designed

-> Entity name become Table name

-> Entity attribute/properties will become column name

Mobile



Q. What is mean by Object or Entity?

Ans: Anything in the real world is known as Object or Entity.
Examples : Mobile, Laptop, Tree,Bird, Person, Scholl,College,University.

Every object or every entity has some properties or attribute.

For Example: Mobile has properties like - size,color, wight, Brand

Q. What is Data?

Ans: Any fact related to any object is considered as Data.

For Example: Mobile has properties like - size,color, wight, Brand

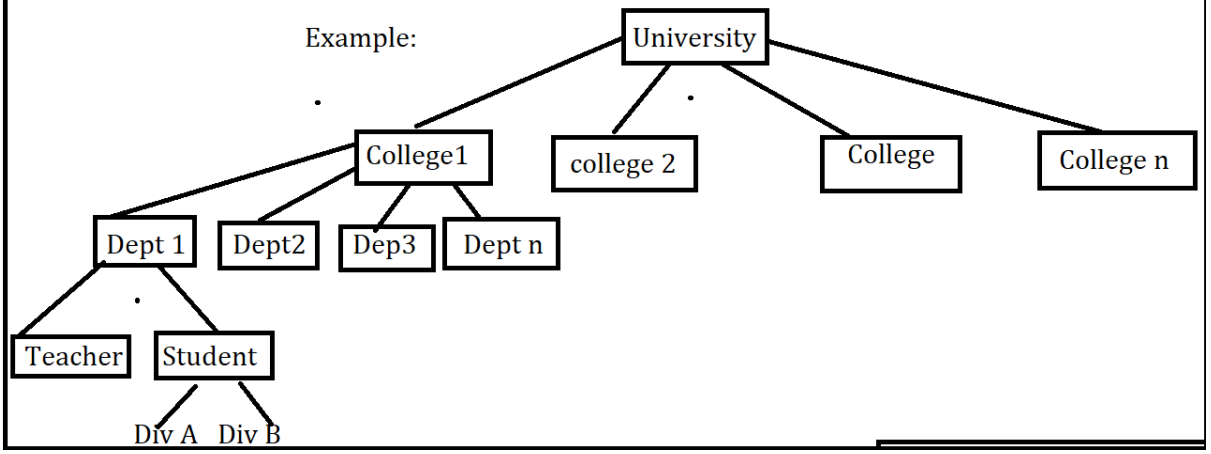
Q. What is mean by Database?

Ans: Systematic collection of data is nothing but Database

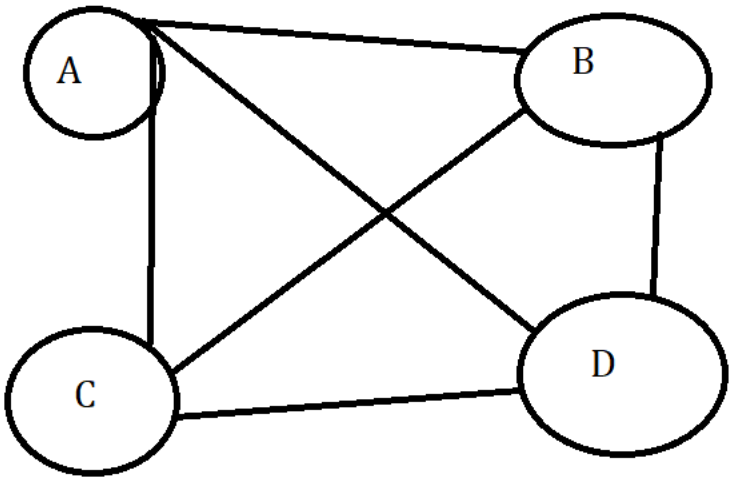
Types of Database

1) Hierarchical Database
In this type of database there is parent and child relationship.

Example:



2) Network Database:
In this type of database, there is many to many relationship



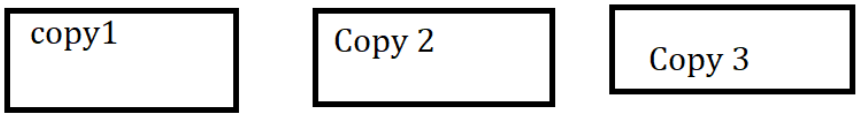
3) Centralized Database:

In this type of Database whole data is store at single place

Example: College Central Library

4) Distributed Database

In this type of Database , same data is stored at different different location



5) No SQL Database

1) No SQL or Not only SQL
2) It store data not only in tabular form but also in other forms

Example of NoSQL is Mongo DB

```
{
   "id": 101,
   "name": Abc,
   "percentage": 65.65

}
```

```
{
   "id": 101,
   "name": Abc,
   "percentage": 65.65

}
```

5) Object Oriented Database:
In this type of Database, data is stored in the form of object

Example: PostgreSQL

6) Relational Database

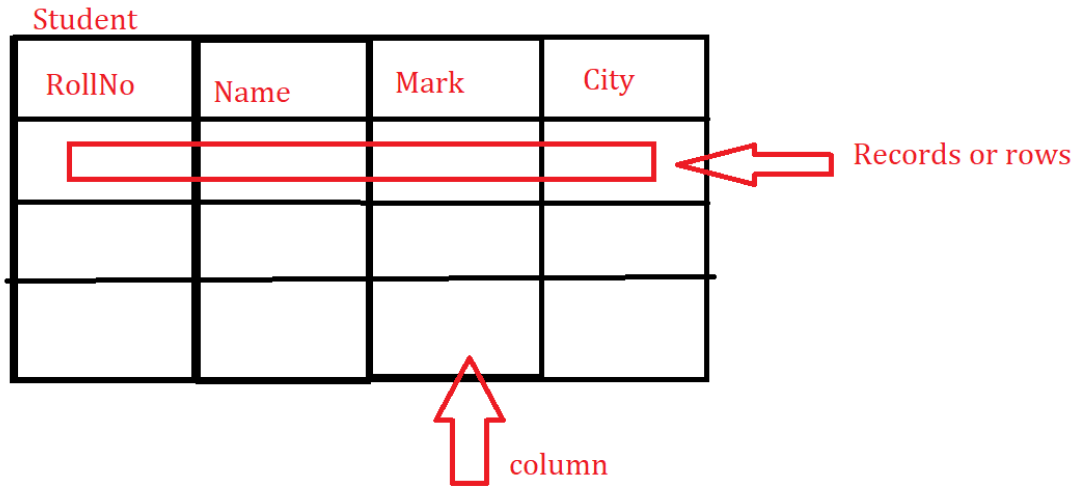
1) It is most popular and most widely used type of database.

2) In this type of database, data is stored in the table

3) It is based on Relational Model which is introduced by E.F Codd

Structure of table:

1) Every table must have name
2) Every table must have at least one column
3) Vertical lines are called column
4) Horizotal lines are called rows or records



Interview Question on this topic

1) Is it possible to have table without name?
2) What are different types of Databases?
3) Is it possible to have table without column?