Project work

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02



What does DBMS have to do with database?

A database is an organized collection of data stored and accessed electronically.

A database management system (DBMS) is the software that interacts with end users, applications, and the database itself to capture and analyze the data.

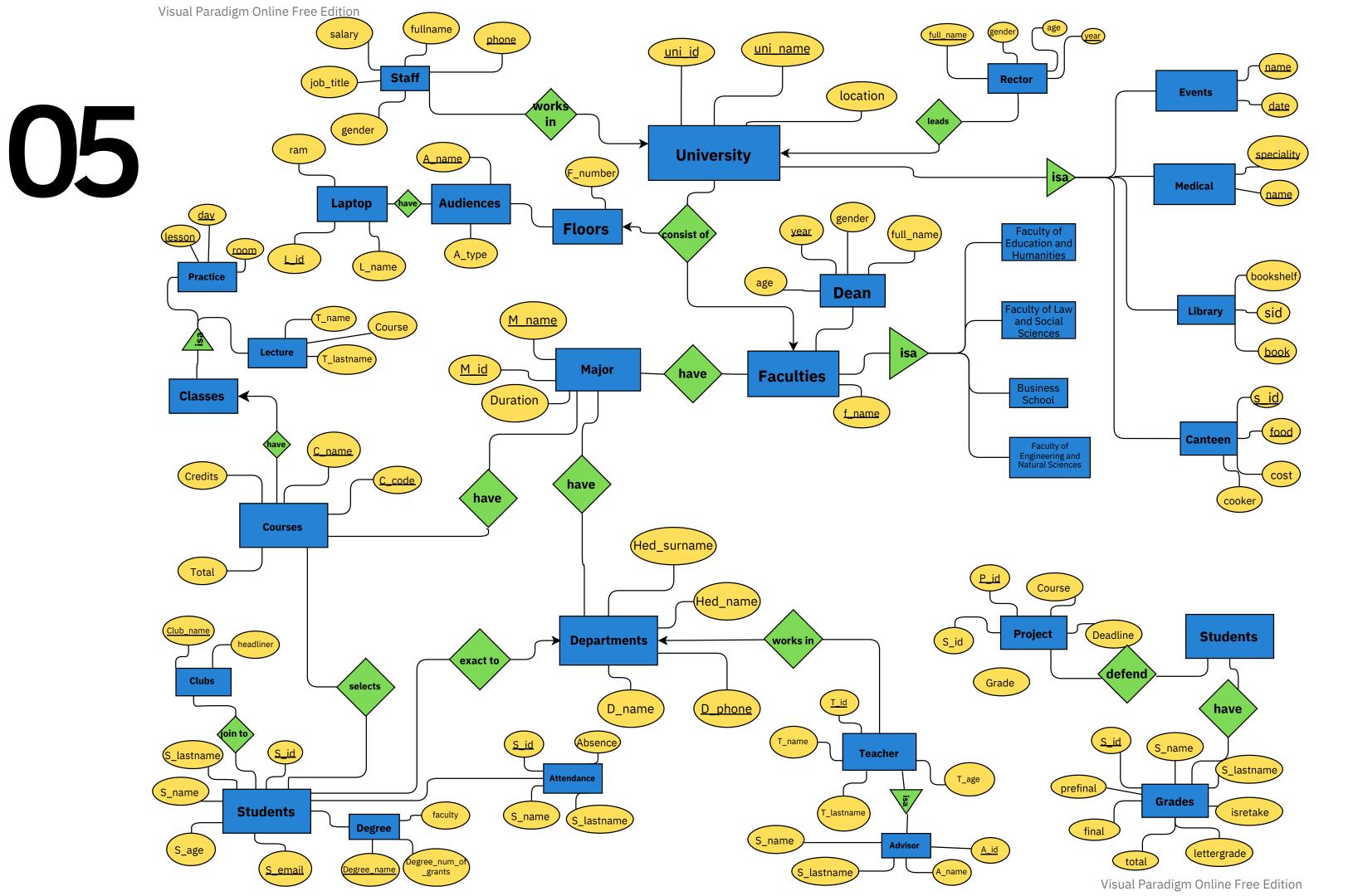
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04 What is an ER diagram?

An Entity Relationship Diagram (ERD) is a visual representation of different entities within a system and how they relate to each other.



What is Functional Dependency?

Functional Dependency (FD) is a constraint that determines the relation of one attribute to another attribute in a Database Management System (DBMS).

superkey is a set of attributes that uniquely identifies each tuple relation.

EXAMPLES

```
Student:{sid}-superkey
{sid}->{sname,slastname,age}
```

Attendance:{sid}-superkey {sid}->{sname,slastname,absence}

Audiences:{name}-superkey {name}->{type}

library:{book_id}-superkey
{book_id}->{book,bookshelf}

Practice:{lesson,day}-superkey
{lesson,day}->{room}

```
Grades:{sid}-superkey
{sid}->{sname,slastname,prefinal,final,total,lettergrade,isretake}
```

Advisor:{id}-superkey {id}->{a_name,sname,slastname}

Department: {dname}-superkey {dname}->{phone,hedname,hedsurname}

Medical:{id}-superkey {id}->{name,speciality}

Rectors:{fullname}-superkey {fullname}->{gender,age,year}

08

What is Database Normalization?

Normalization is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies.

STUDENT

SNAME

Kailey

Bryson

SID

84621

7318

78499	Maximus	Doyle	16
69718	Christian	Stevens	21
3016	Lillie	Winters	22
8068	Jayden	Holland	20
91943	Mayra	Leon	19
41610	Rylan	Cain	20
23856	Alberto	Harrell	22

Hinton

Wu

SLASTNAME

AGE

21

16