

Q. What is a database?

A db is a shared collection of related data.

## # Properties

- A db represents some aspects of the real world, sometimes called Universe of Discourse.
- A db is designed, built & populated with data for a specific purpose.

## # DBMS

- define
- construct / insert
- manipulate
- share

[Self describing]

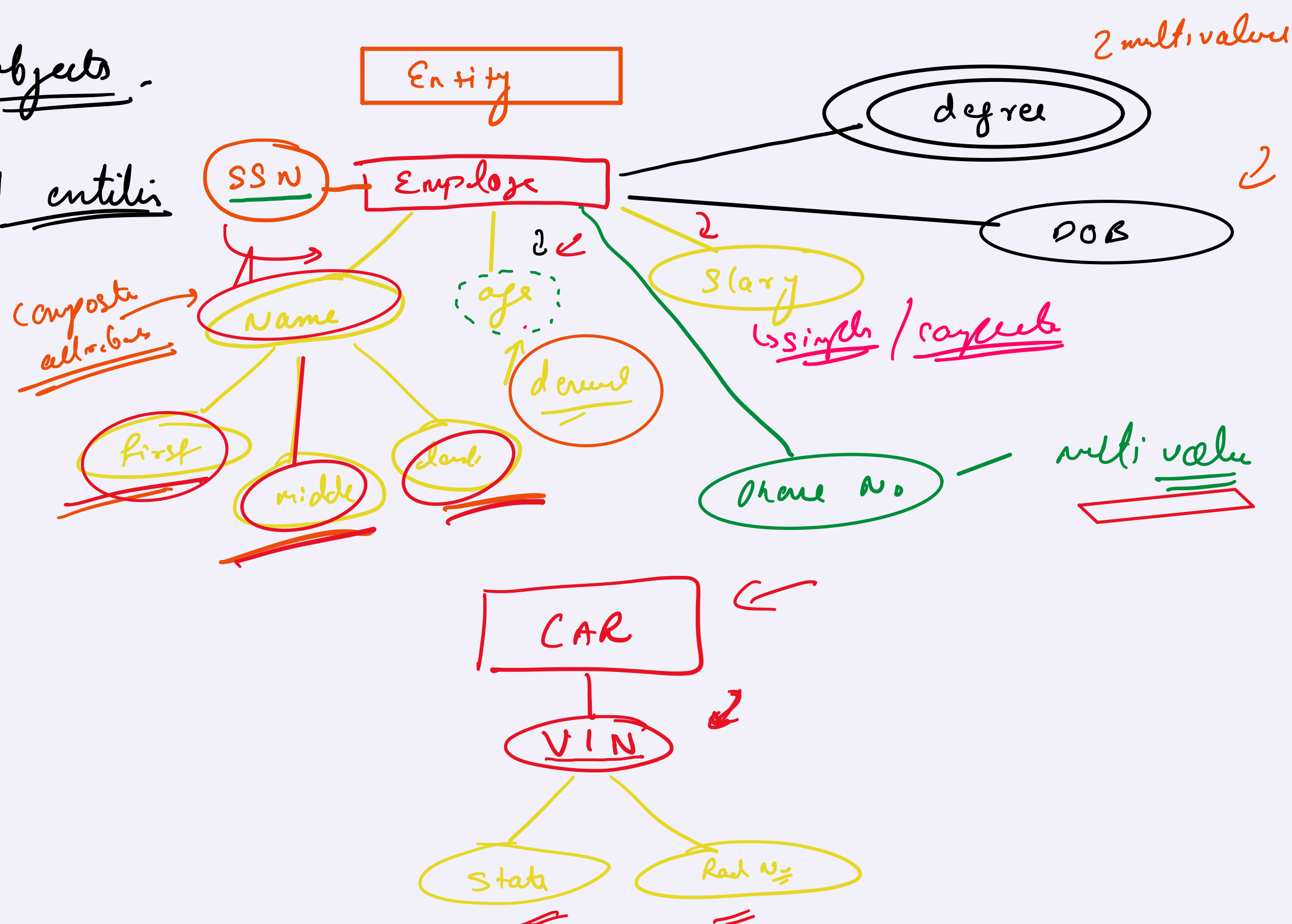
## # ERD

It is a high level conceptual data model of a db.

# Entity → real world objects.

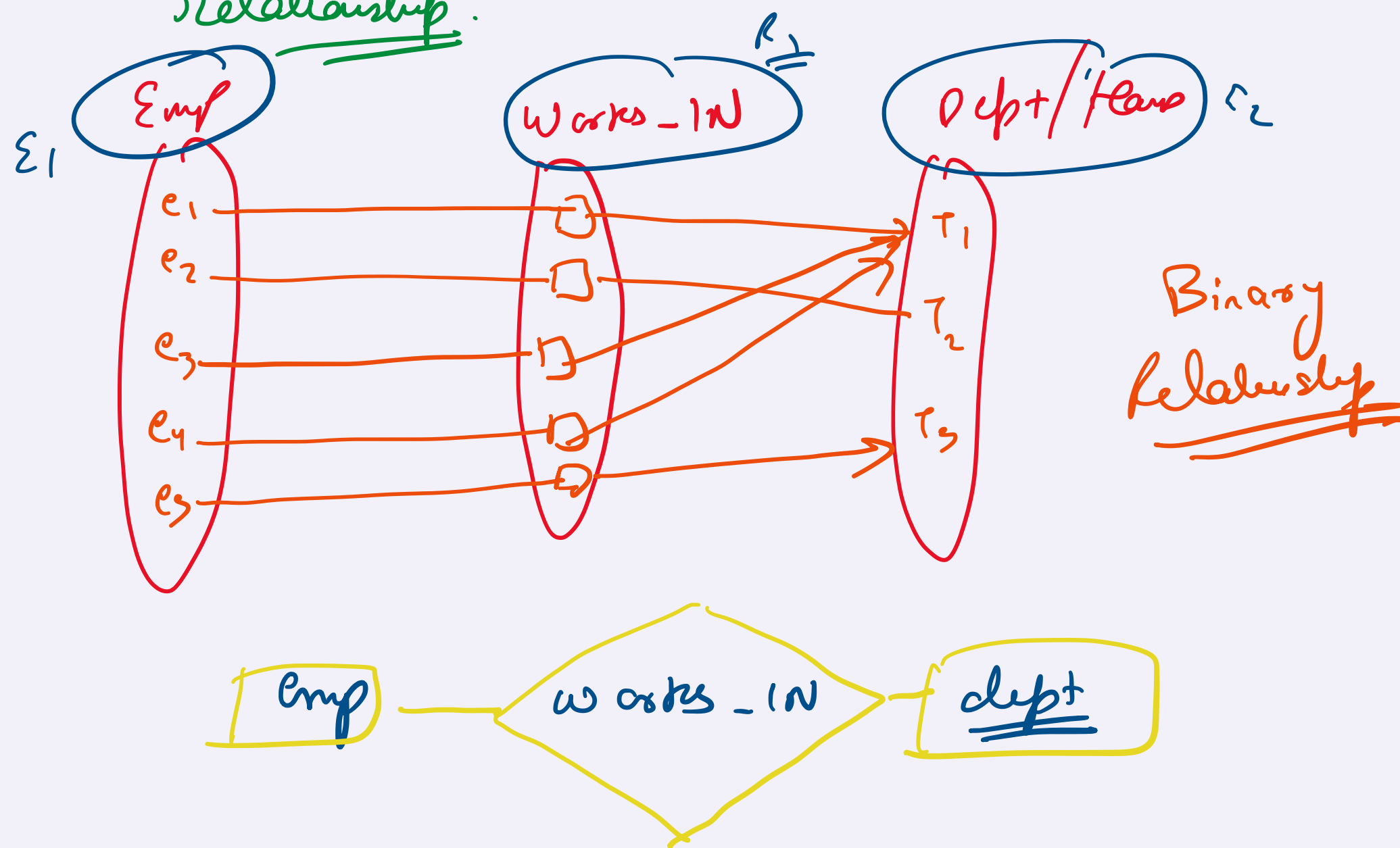
# attribute → properties of entity.

\* Key

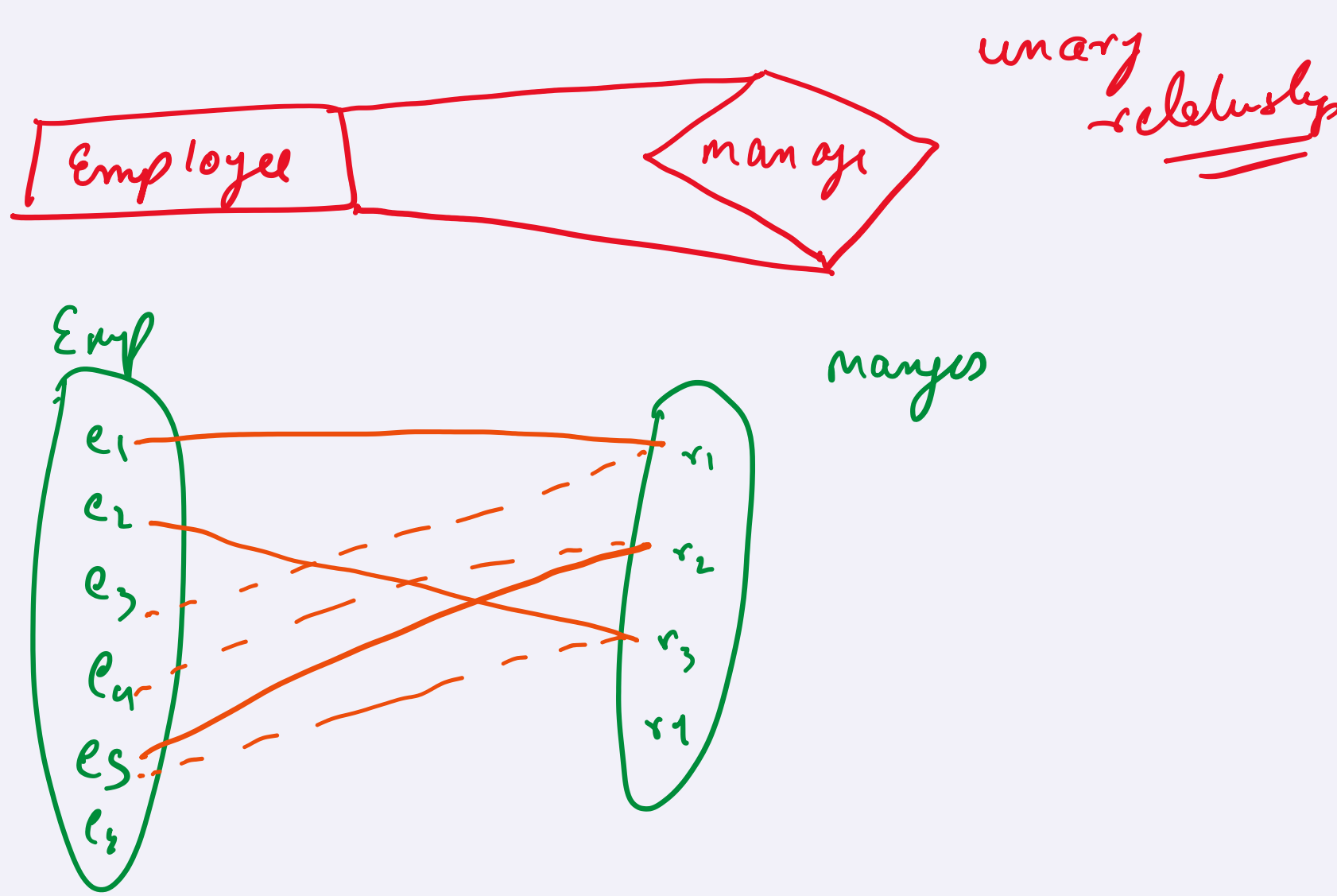


# Relationships → a relationship is an association between 2 or more entities.

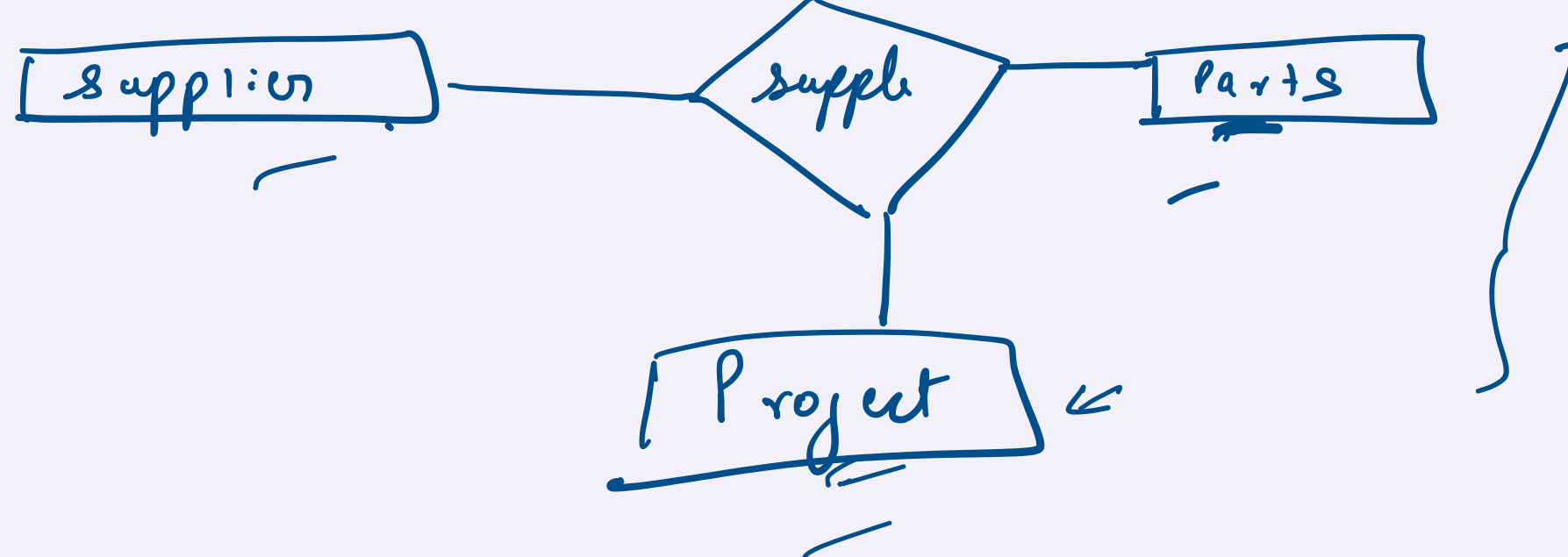
Degree?? number of participating entities in a relationship.



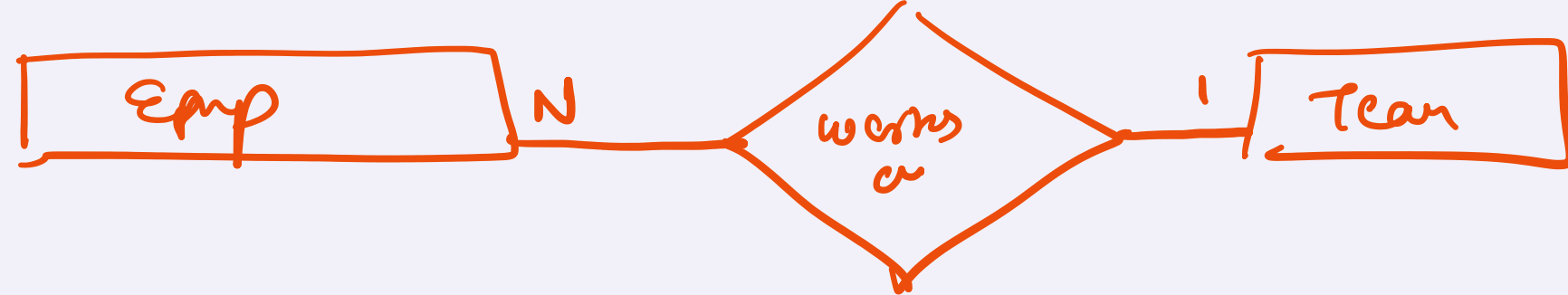
# Unary relationship??



ternary

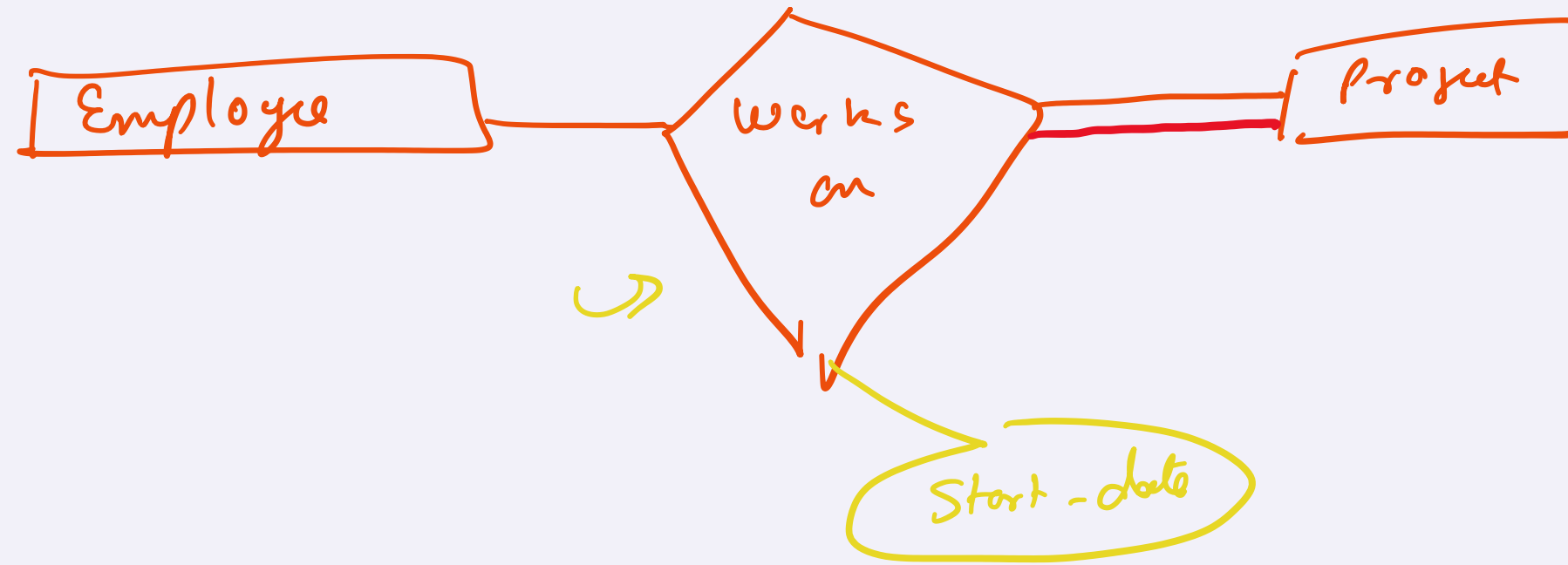


1:N or N:1 or many to one or one to many



1:1 relation?

# Participation?? → partial / optional  
→ total / mandatory



# weak entity → doesn't have key attributes

Entity, attribute, relationship

