

Pavithra Rajan

B190632CS

Set A (B03)

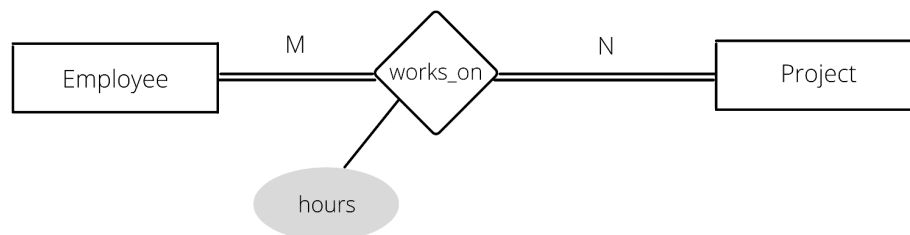
Topic: ER diagram and ER mapping

Part A

- 1) ER model or ER Diagram
- 2) Associative entity

Part B

- 1) Entity set is represented by a rectangle divided into 2 parts. An entity set is a collection of entities of the same entity type
- 2) house _number cannot be a primary key because more than one individual can have the same house_number. Hence, it will not be a unique value to identify a tuple. Driving_license_number can be NULL as a person can be ineligible for license if below 18. So, it cannot be truly used as a primary key as well. Thus, assuming every individual has an aadhar_number, PAN_number; house _number and Driving_license_number cannot be the primary key. For an attribute to be the primary key it must be unique and not NULL.
- 3) An attribute of a relation is called the descriptive attribute.
The works_on relation between employee and project has an attribute 'hours' which is a descriptive attribute.



- 4) The relational table for 'manages' can be merged with employee if employee has total participation and the relation between employee and department is many to one or one to many.

Part C

- 1) The entity set that the weak entity is associated with is called the identifying entity set or the owner entity set. The weak entity set can be defined with the primary key attribute from the owner entity set along with an attribute of its own.

- 2) Consider a relation between employee and department called 'manages'. A double line exists between the relation and department indicating a total participation as every department will have a manager but a single line on the employee side indicates partial participation as not all employees will manage a department.

