CC-215

LABORATORY 01

DBMS

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Contents:

- Unary Relationship
- Binary Relationship
- Ternary Relationship

- Ten examples of each relationships
- INCLUDING THEIR ER DIAGRAMS

➢ Unary Realtionship:

- **DEFINITION:**

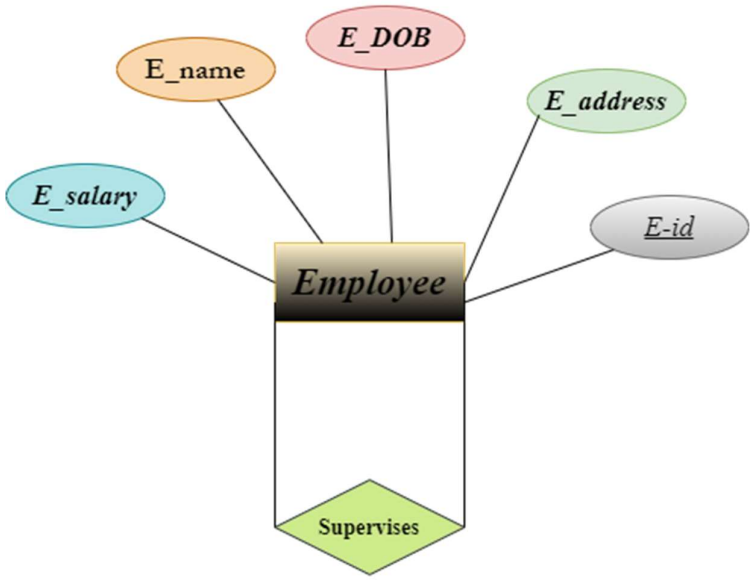
A unary relationship (also known as a recursive relationship) occurs when an entity is related to itself. This means that a single entity type has a relationship with itself.

- ***Example:***

Consider an employee database where an employee can supervise other employees. In this case, the "Employee" entity has a unary relationship because one employee can be a supervisor of another employee.

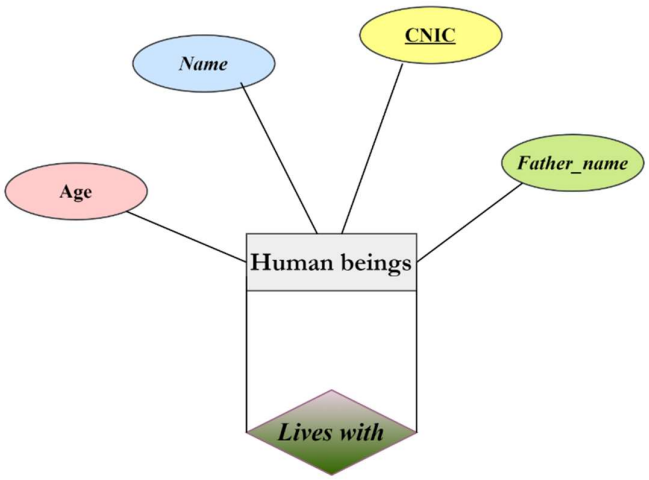
TEN EXAMPLE FOR UNARY RELATIONSHIP

➢ Employee model:



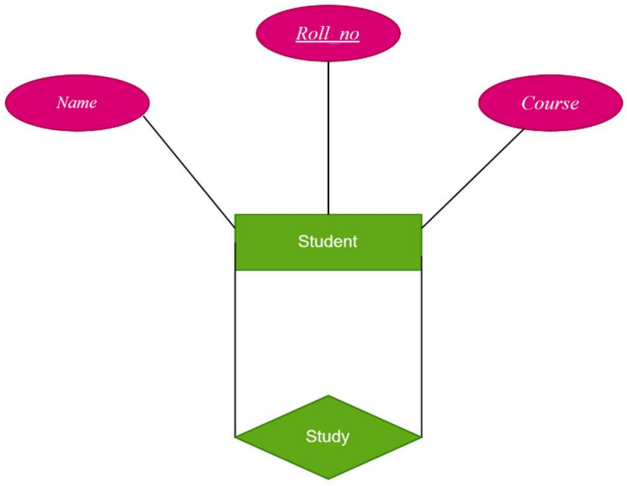
Employee data model

➢ Human model:



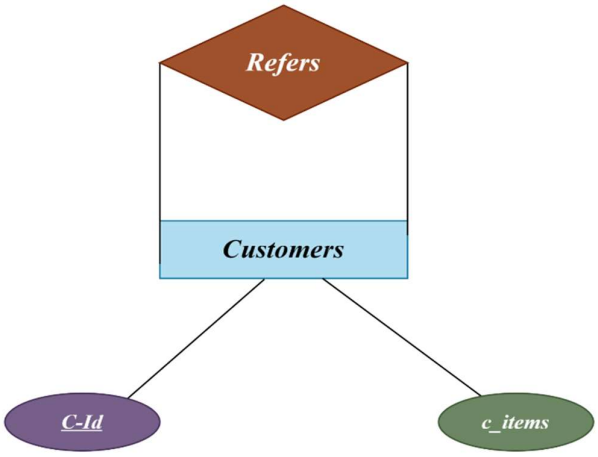
HUMAN data model

➢ Student model:



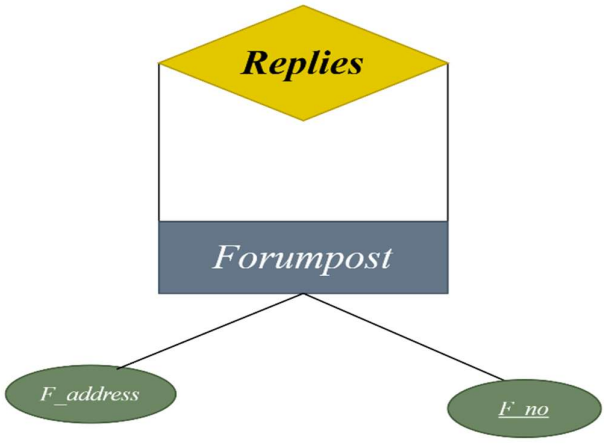
Student Data Model

➢ Customer model:



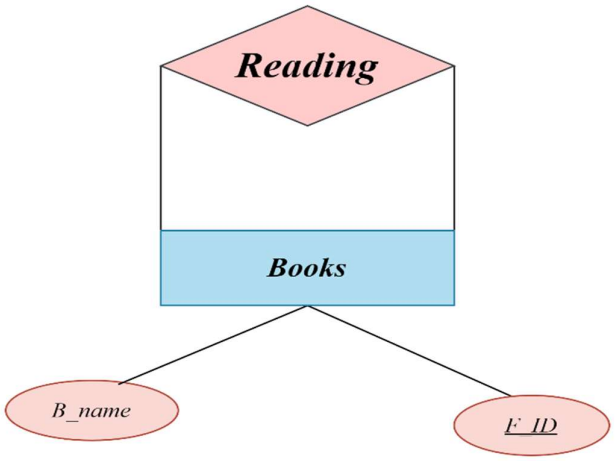
Customer Model

➢ Forum post model:



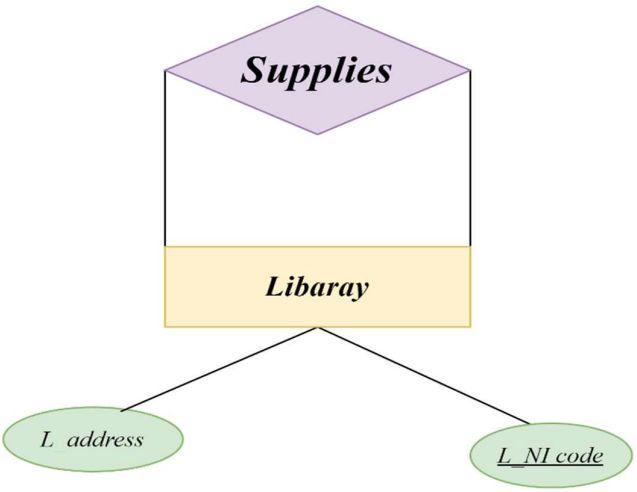
ForumPost model

➢ Book model:



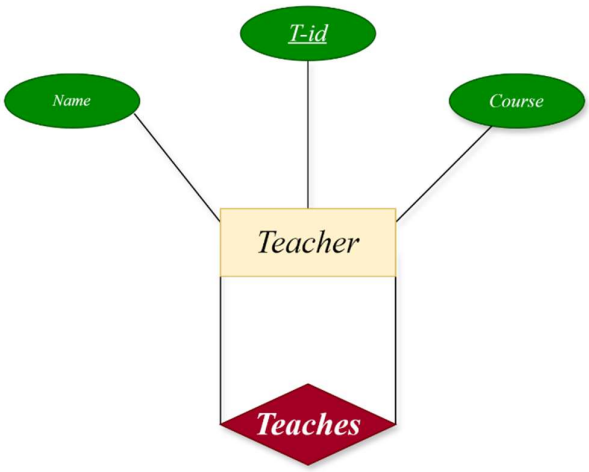
BOOK model

➢ Library model:



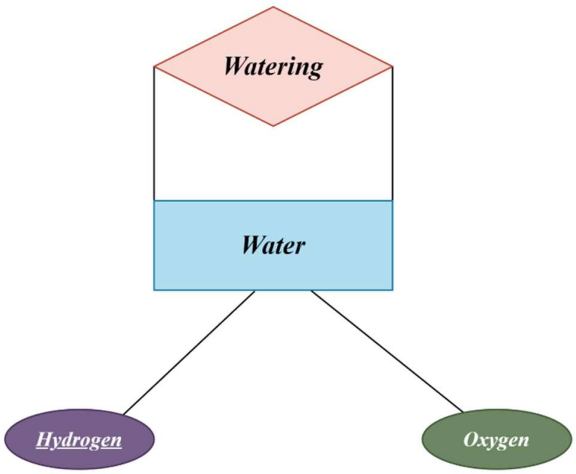
Library model

➢ Teacher data model:



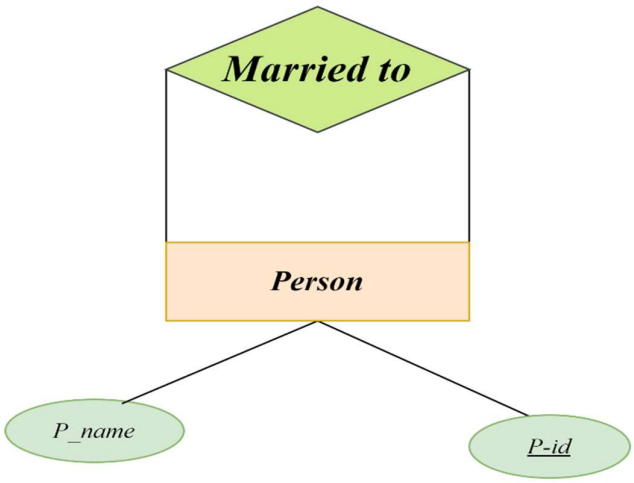
Teacher data model

➢ Water model:



Water Model

➢ Person model:



Person model

➢ Binary Relationship

- DEFINITION:

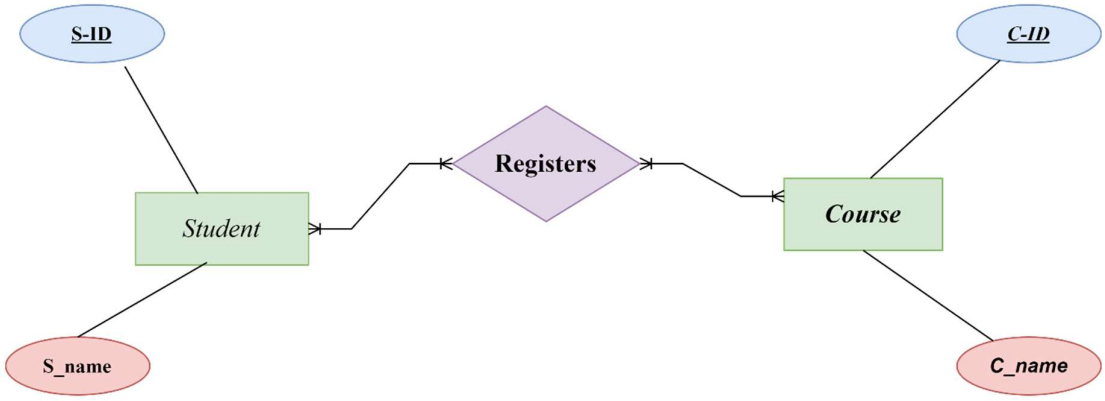
A binary relationship involves two different entities. This is the most common type of relationship in databases.

- ***Example:***

In a database with "Students" and "Courses," a binary relationship could exist where students enroll in courses. Here, the "Student" entity and the "Course" entity are related to each other.

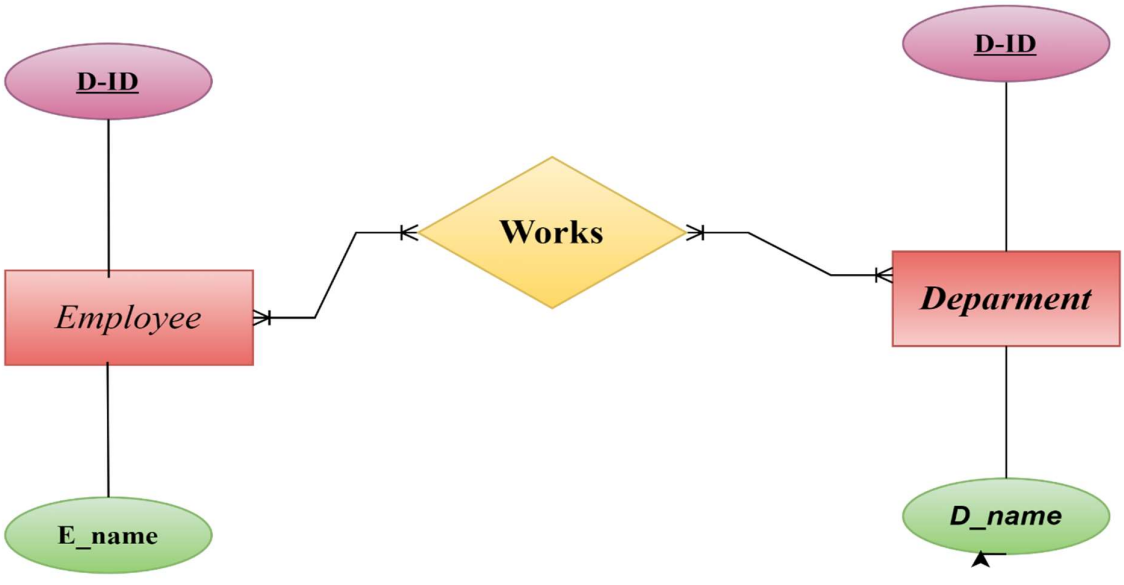
Ten Examples for the Binary relationship:

- **Student Model:**



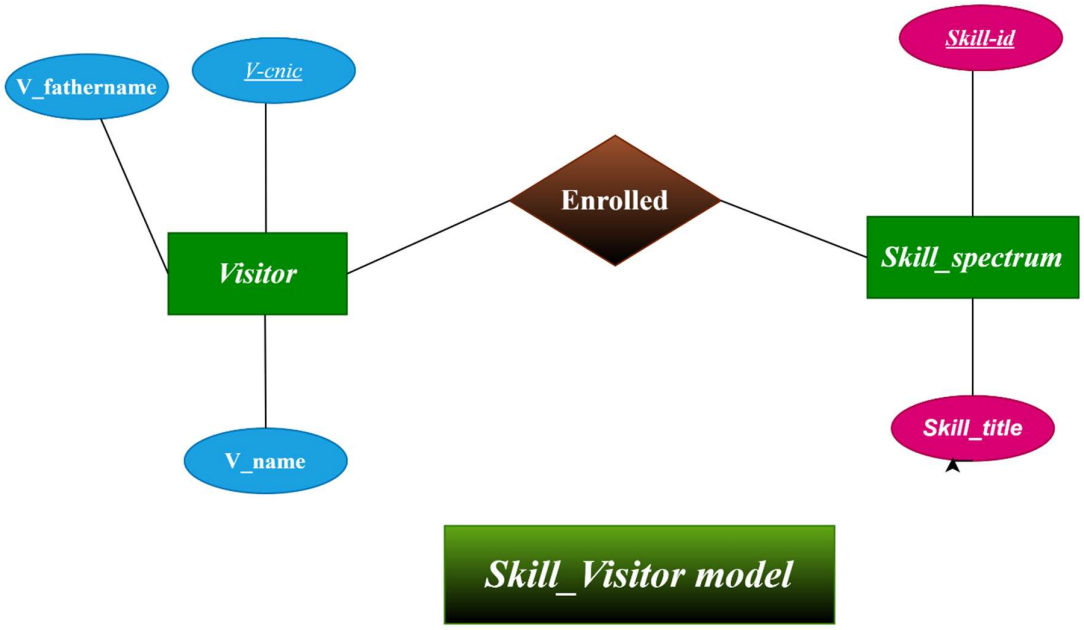
Student data model with M:1 relationship

- **Employee model:**



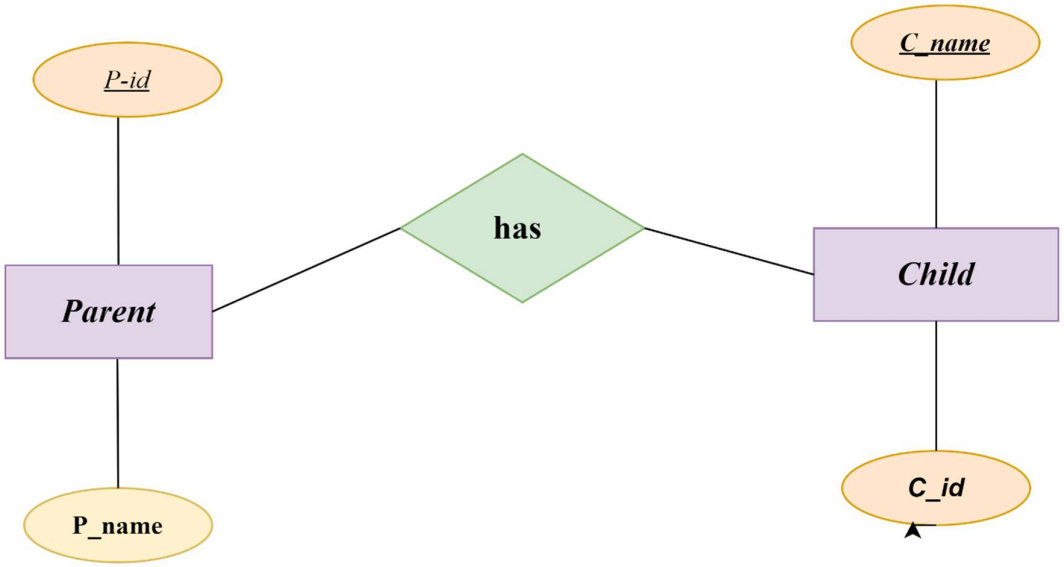
Employee Data Model

- **Skill model:**



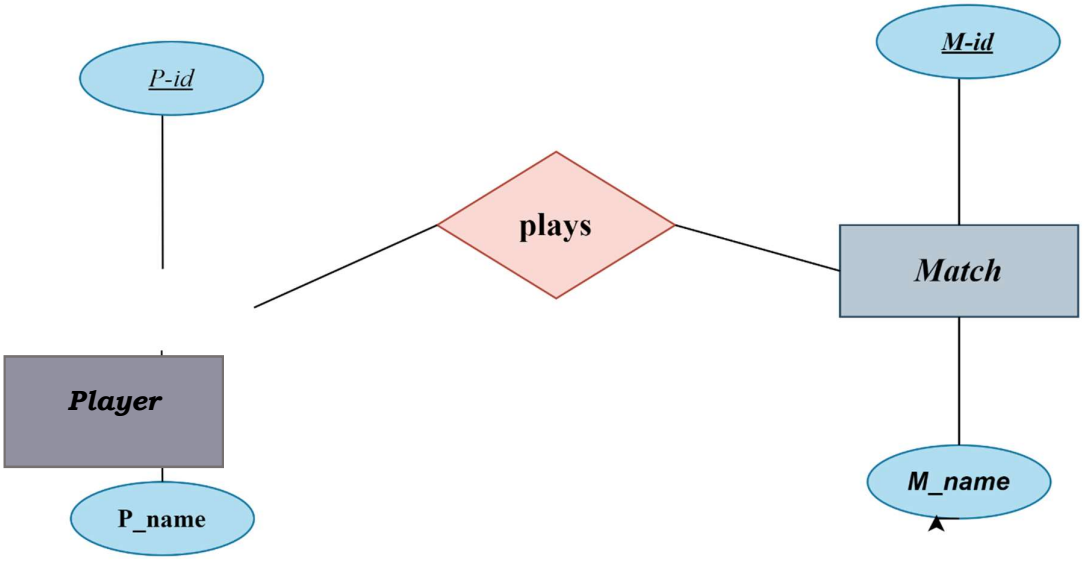
Skill_Visitor model

- **Parent Child Model:**



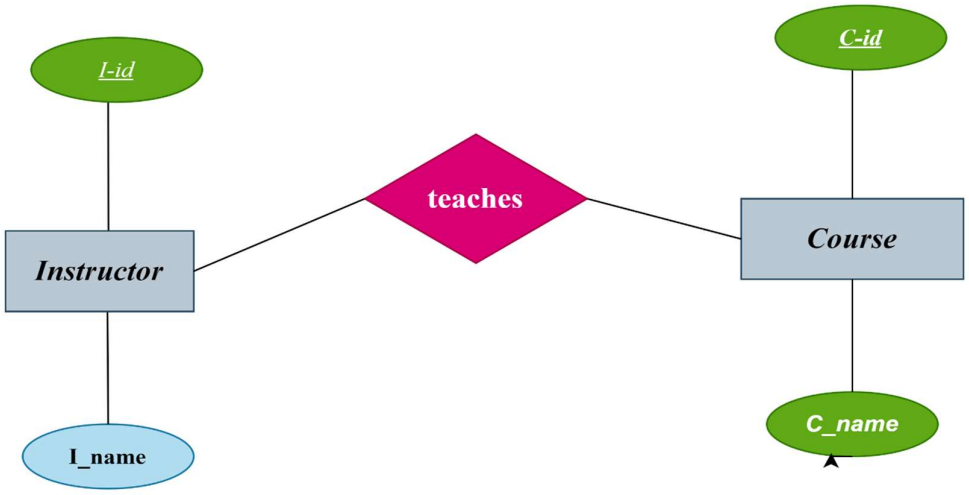
Skill_Visitor model

- **Player:**



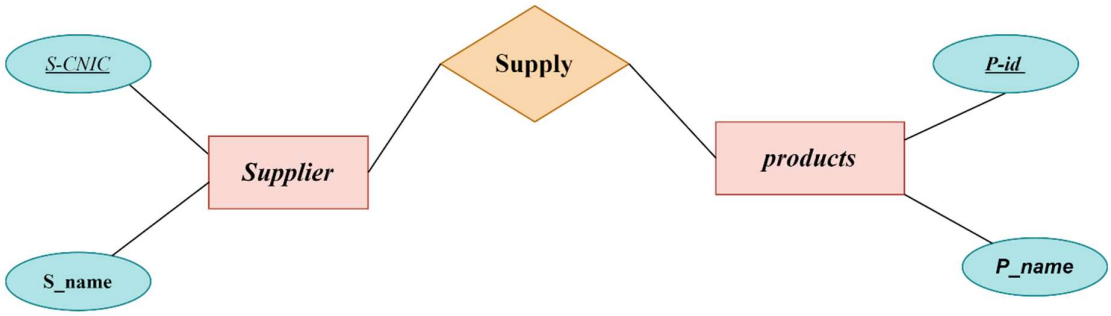
Match model

- **Instructor model:**



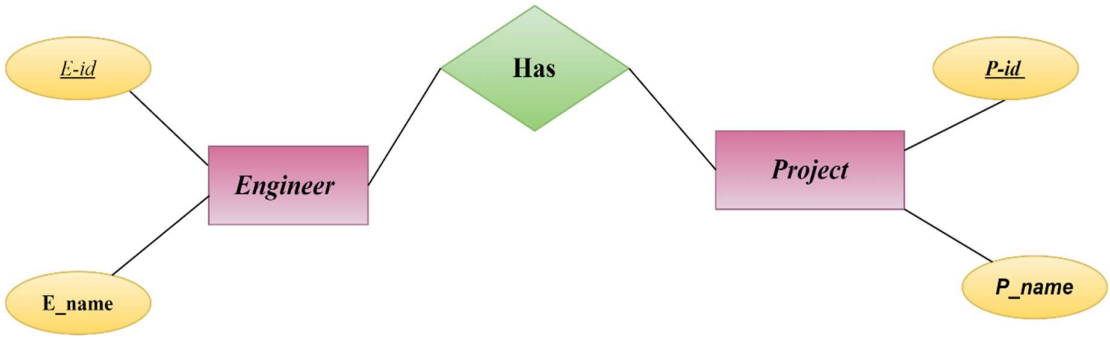
Instructor model

- **Supplier model:**



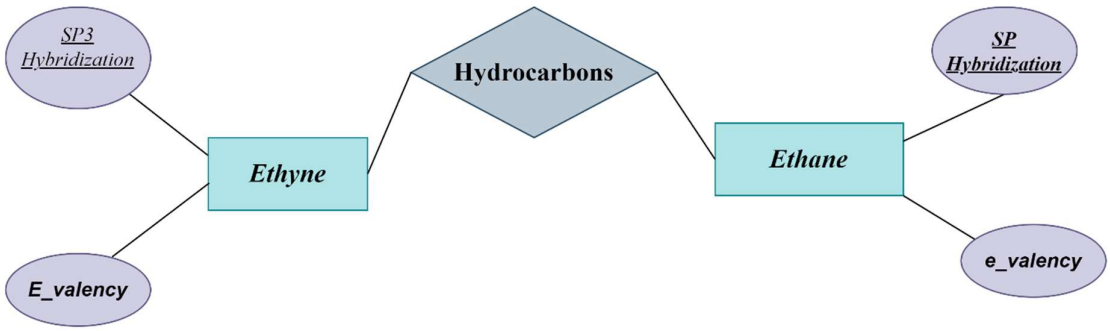
Supplier model

- **Engineer model:**



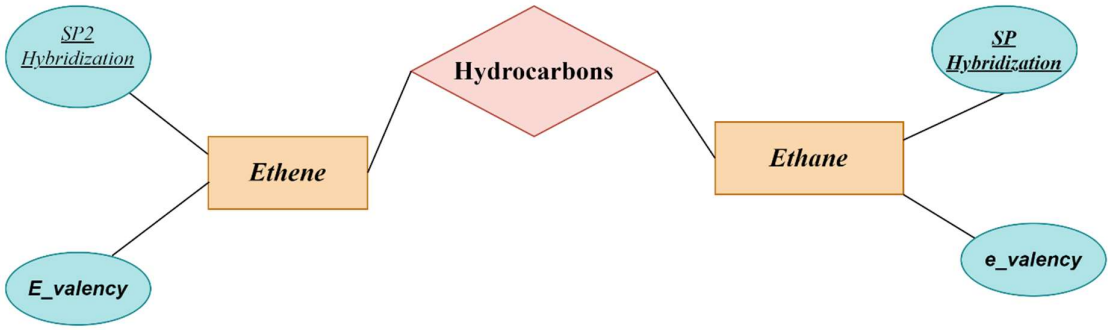
Engineer model

- **Chemistry Model:**



Chemistry model

- **Ethene model:**



Ethene model

➢ TERNARY RELATIONSHIP:

Ternary Relationship:

- **Definition:**

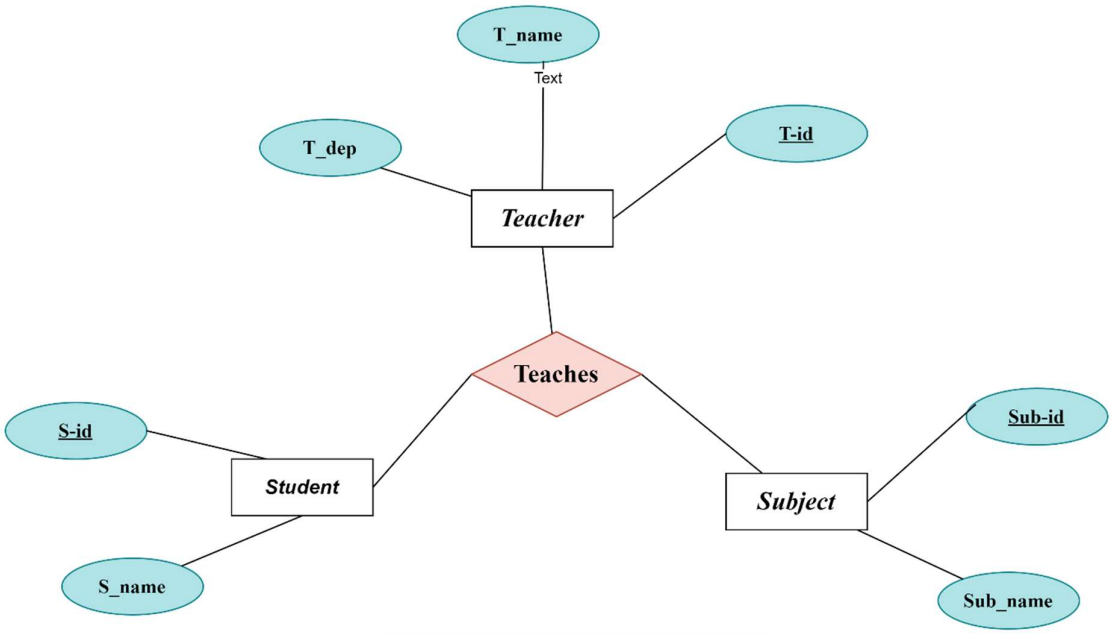
A ternary relationship involves three different entities. This type of relationship is less common than unary and binary relationships.

- **Example:**

Consider a scenario where a "Supplier," "Product," and "Warehouse" are involved. A ternary relationship could exist where a supplier supplies a product to a specific warehouse. In this case, all three entities are involved in the relationship.

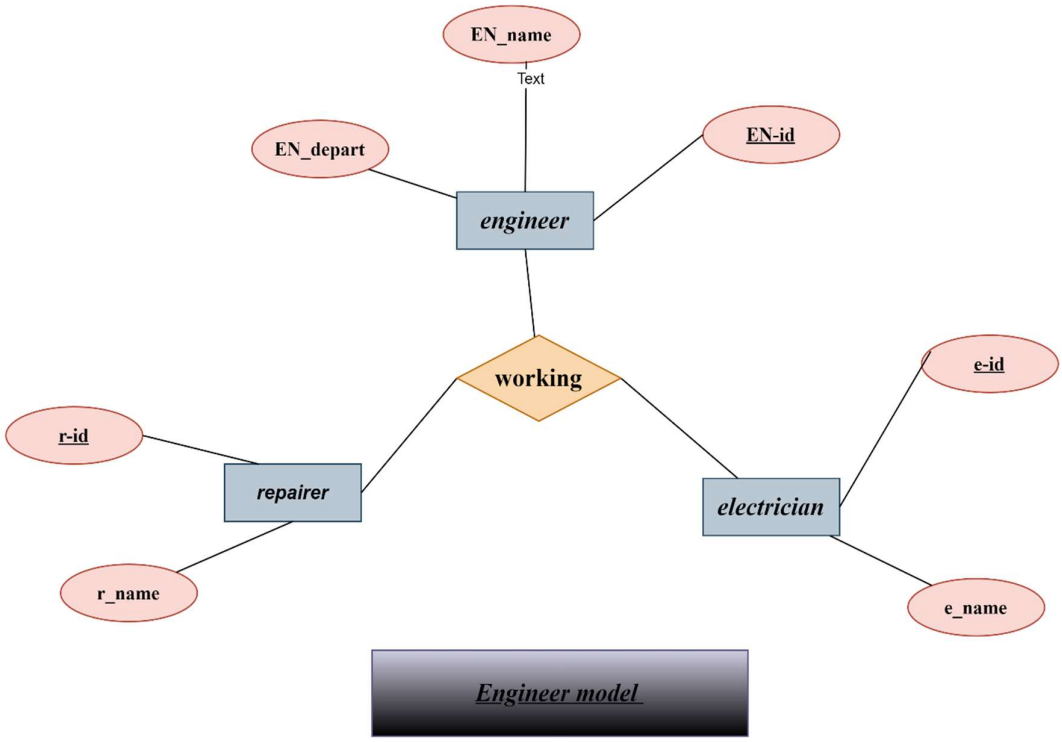
- STUDENT TEACHER MODEL:

Degree of relationship



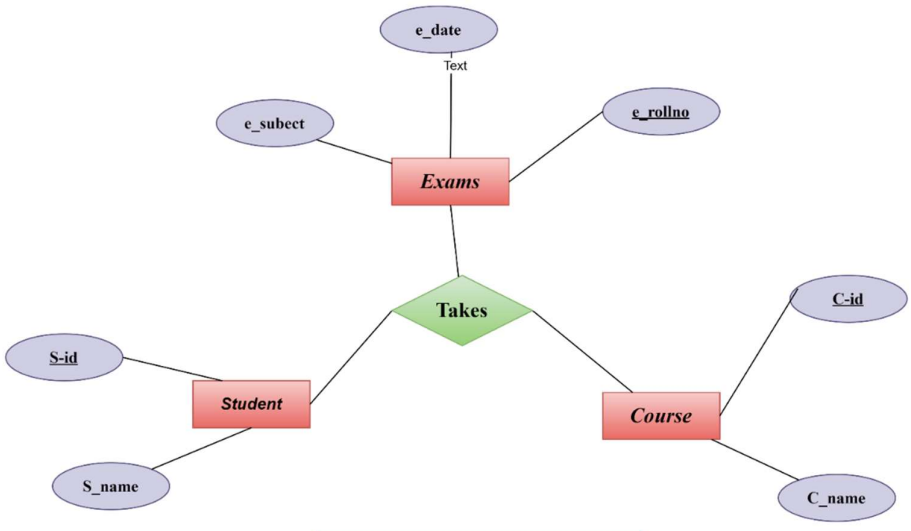
Teacher Model with Student and Subject

- **Engineer model:**



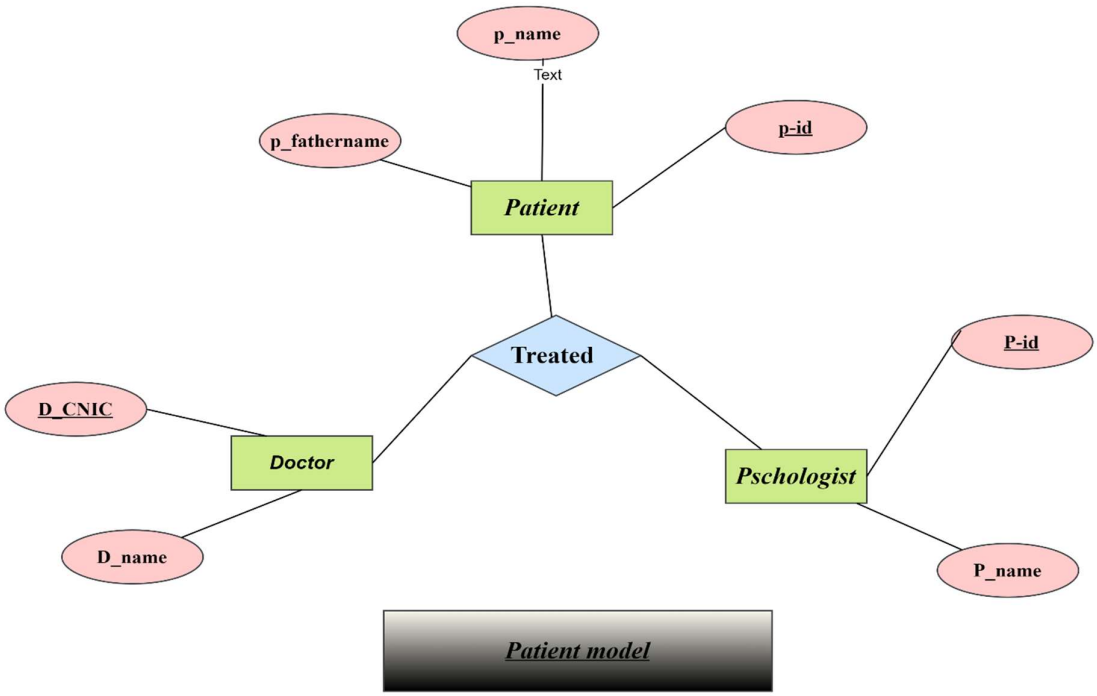
Engineer model

- **Student model:**

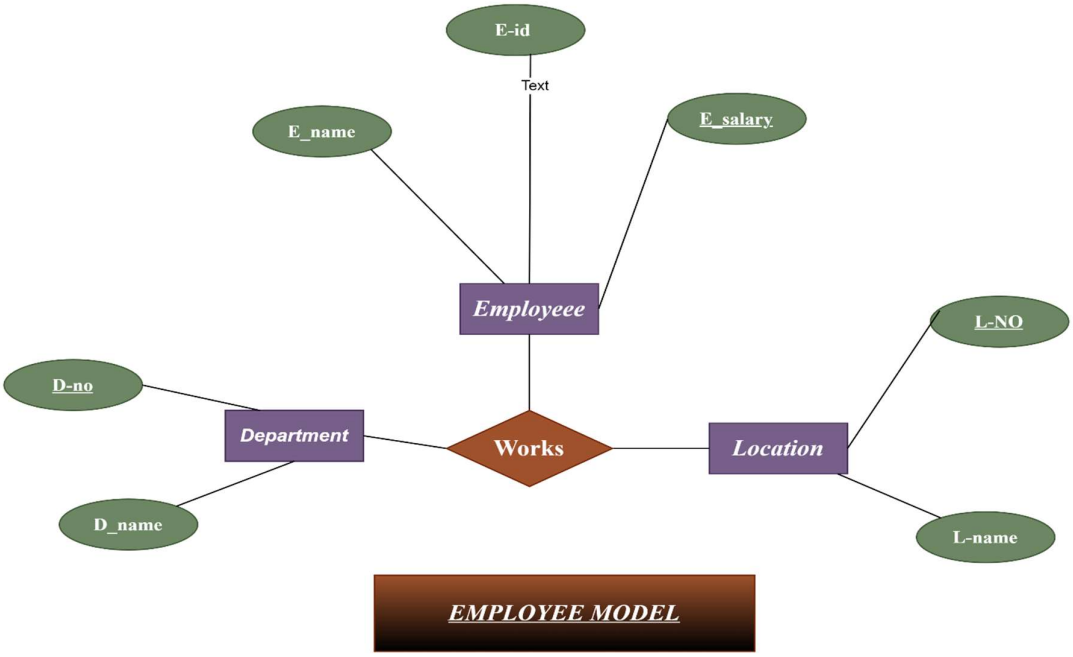


Student model

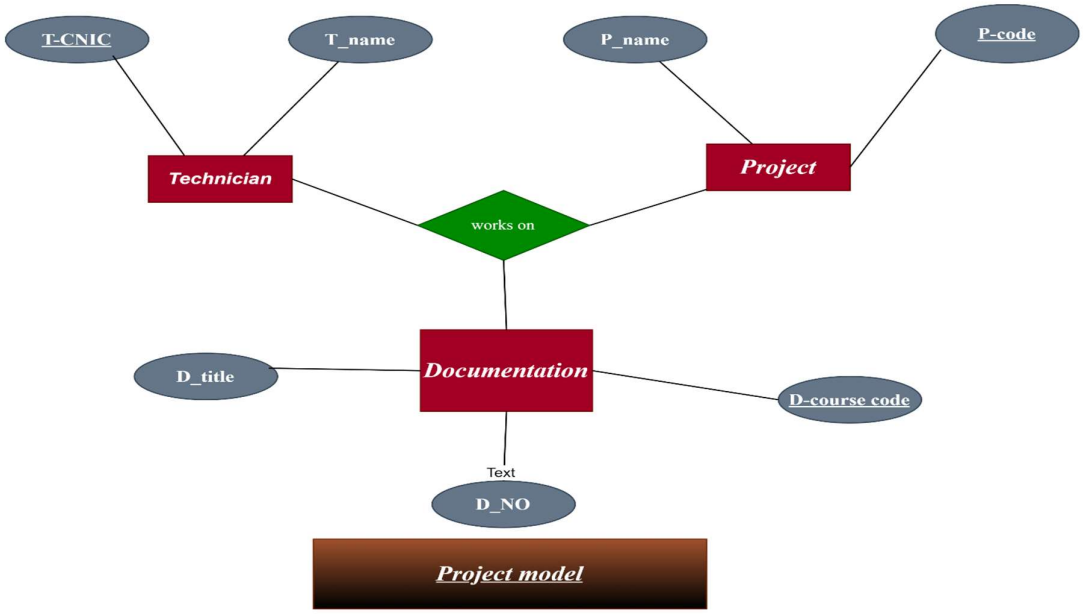
- **Patient model:**



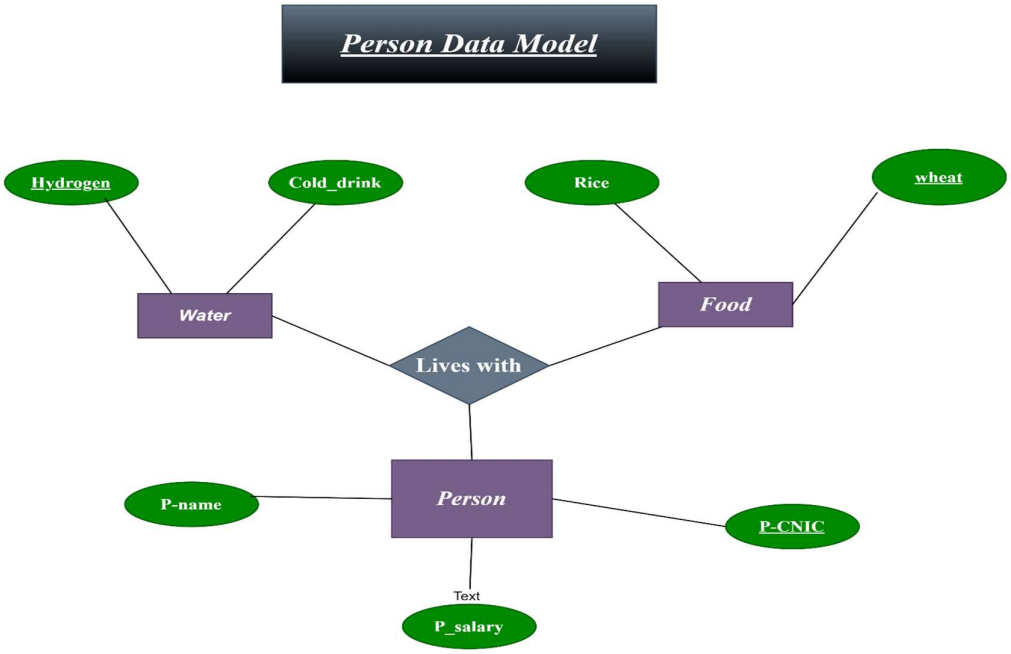
- **Employee Model:**



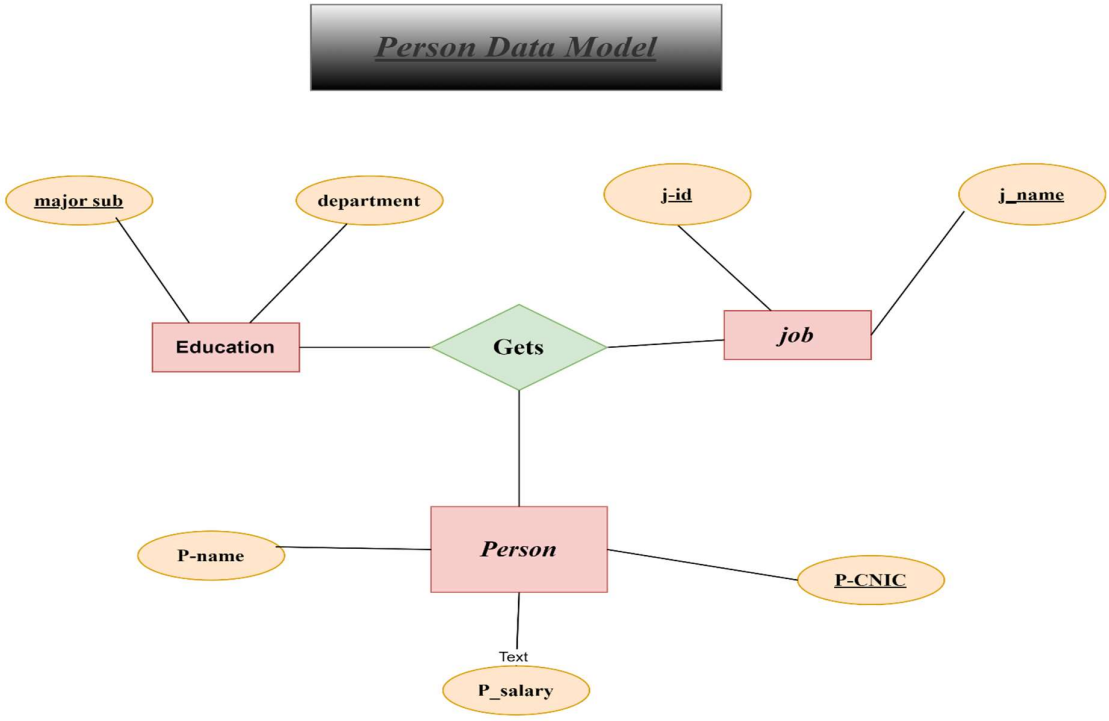
- **Project model:**



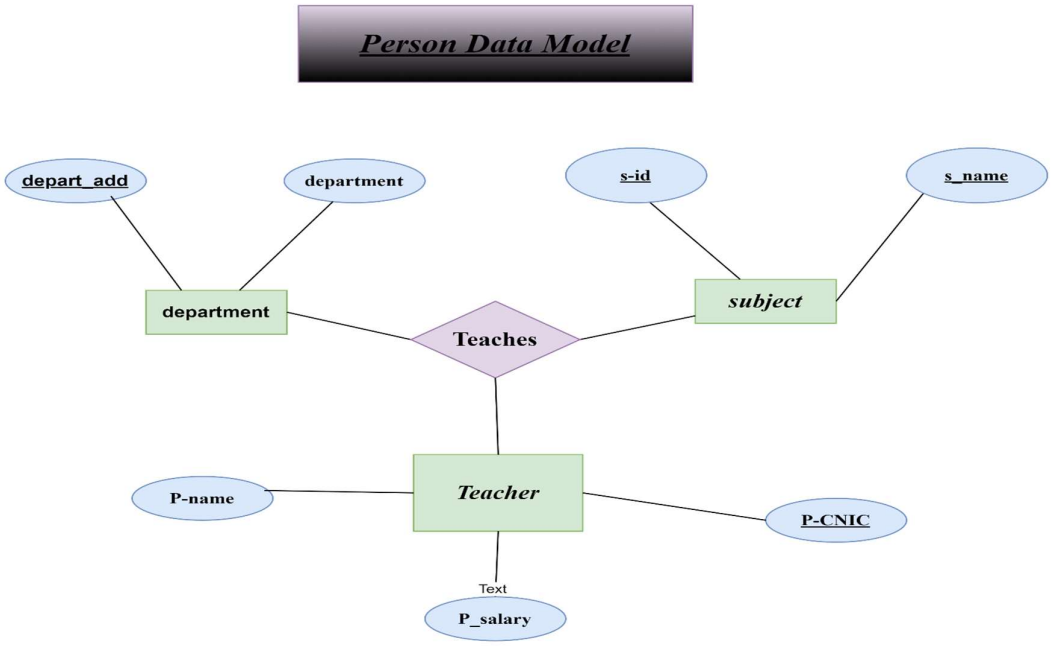
- **PERSON MODEL:**



- **Person with job and education:**

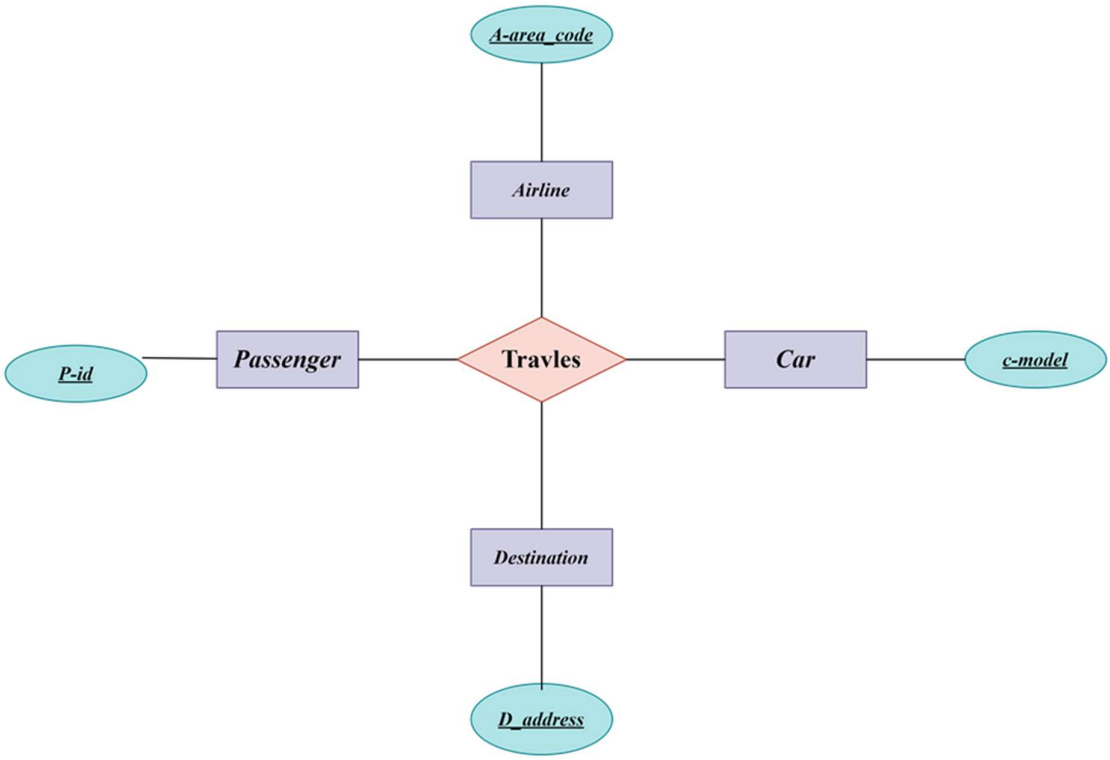


- TEACHER MODEL:



- PASSENGER:

Degree of relationship



A Passenger is travel via through car to airline for the travles to destination