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(NAAC Accredited "A++" Grade University)
Green Fields, Guntur District, A.P., India – 522502
Department of Electronics and Communication Engineering
(DST - FIST Sponsored Department)

Active Learning Method

Program: B. Tech Academic Year / Yr-Sem : 2024 - 25 / II - II Sem

Course Title & Code: **DBMS & 23AD2102R**

Date: Time: Venue:

CO#	1
Topics	ER MODEL
Type of ALM	Case Study
Learning Approach	One Minute Paper

Topic Explanation: Provide a brief overview of ER To Relational Model, emphasizing its role different Symbols within the database. Explain the purpose each symbol, and its significance in database model.

ANSWER

Overview of ER to Relational Model

The ER to Relational Model converts ER diagrams into relational schema, representing data logically for database implementation. It emphasizes organizing entities, attributes, and relationships into tables for efficient storage and query.

Role in Database

- Translates real-world concepts into a structured format.
- Ensures normalization, data consistency, and relationships between entities.

Symbols in Database Model

1. **Entities (Tables)**
   - **Purpose**: Represent objects or concepts.
   - **Significance**: Store real-world data (e.g., Students, Products).
2. **Attributes (Columns)**
   - **Purpose**: Describe entity properties.
   - **Significance**: Provide structure to stored data (e.g., Name, Age).
3. **Primary Keys**
   - **Purpose**: Uniquely identify table rows.
   - **Significance**: Prevents duplicate entries, ensures data integrity.

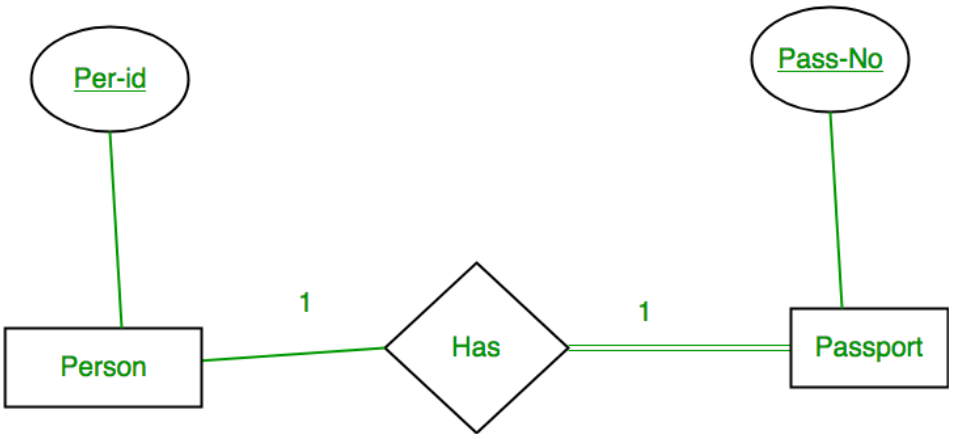
4. **Foreign Keys**
   - **Purpose**: Link related tables.
   - **Significance**: Establish and maintain relationships.
5. **Relationships**
   - **Purpose**: Define associations (1:1, 1:N, M:N).
   - **Significance**: Model real-world interactions between entities.
6. **Composite Attributes**
   - **Purpose**: Represent multi-part attributes (e.g., Full Name).
   - **Significance**: Provide clarity by decomposition.
7. **Multivalued Attributes**
   - **Purpose**: Handle multiple values for a single entity.
   - **Significance**: Normalized into separate tables for efficient design.

Sample Questions:

- Summarize the purpose of ER To Relational Model and its significance in database development in one sentence.

The ER to Relational Model translates real-world entities and relationships into a structured schema, ensuring efficient, consistent, and logical database development.

- Provide an example scenario where you would ER To Relational Model

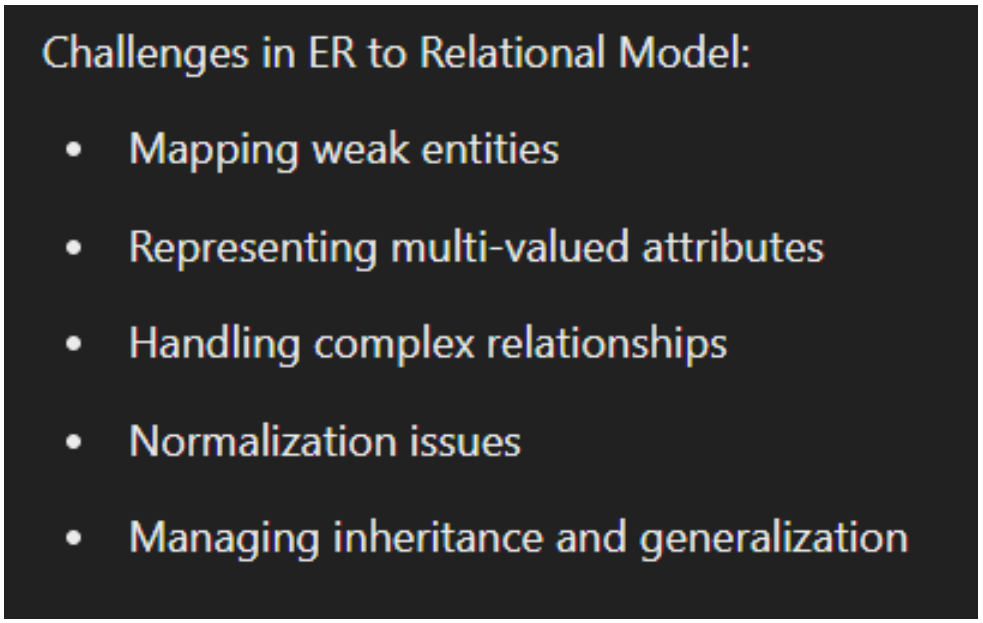


- What is some common ER To Relational Model you encountered, and how do they contribute to Relational model?

Common ER to Relational Model Mappings:

1. **Entity → Table**: Defines data storage structure.
2. **Attributes → Columns**: Specifies data fields.
3. **Primary Key**: Ensures uniqueness.
4. **Relationships → Foreign Keys**: Maintains data integrity.
5. **Weak Entities**: Represents dependencies with composite keys.
6. **Many-to-Many → Junction Table**: Captures complex associations.
7. **Aggregation → Table**: Models higher-level abstractions.

- Describe any challenges or uncertainties you have regarding ER To Relational Model.



- What aspect of ER To Relational Model interests you the most, and why?