



CONSTRAINS

- Constraints on Specialization and Generalization
- Membership constraints:
 - Condition defined: Membership of a specialization/generalization relationship can be defined as a condition in the requirements. Ex: Account– SavingAccount and CurrentAccount.
 - User defined: The membership is manually defined.

Acc No.	Name	Branch	Type
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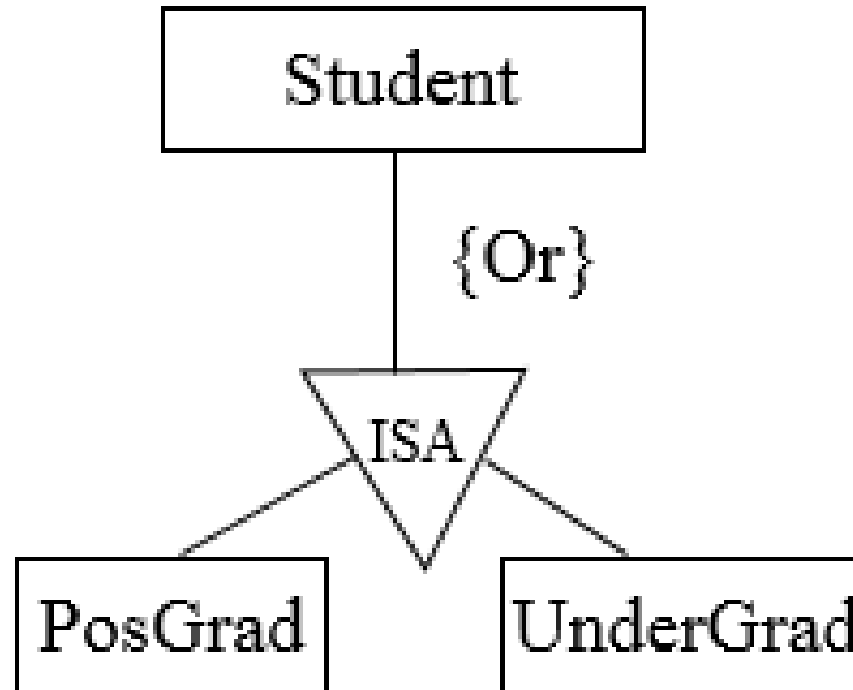
CONSTRAINS

- Constraints on Specialization and Generalization
- Disjoint constraints: {or}
 - The disjoint constraint only applies when a superclass has more than one subclass.
 - If the subclasses are disjoint, then an entity occurrence can be a member of only one of the subclasses.



CONSTRAINS

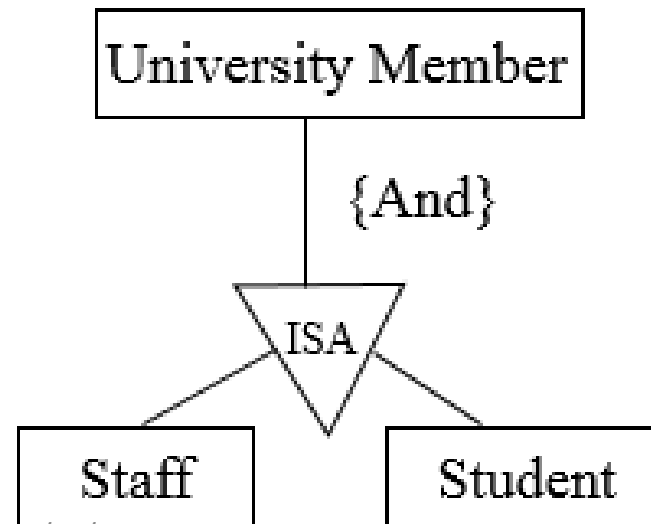
- Constraints on Specialization and Generalization
- Disjoint constraints:





CONSTRAINS

- Constraints on Specialization and Generalization
- Overlapping constraints: {and}
 - This applies when an entity occurrence may be a member of more than one subclass.





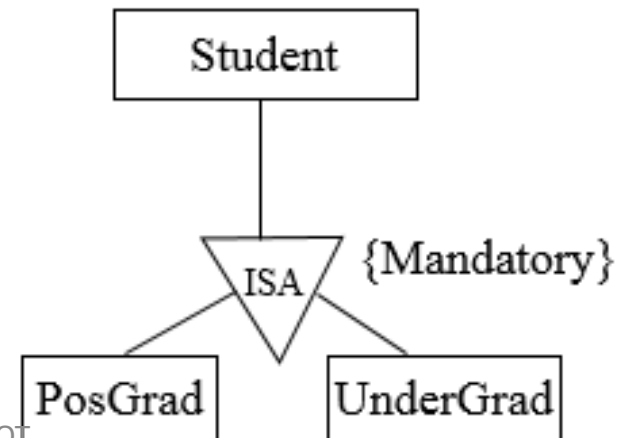
CONSTRAINS

- Constraints on Specialization and Generalization
- Completeness:
 - It specifies whether or not an entity in the higher level entity set must belong to at least one of the lower-level entity sets within the generalization/specialization.



CONSTRAINS

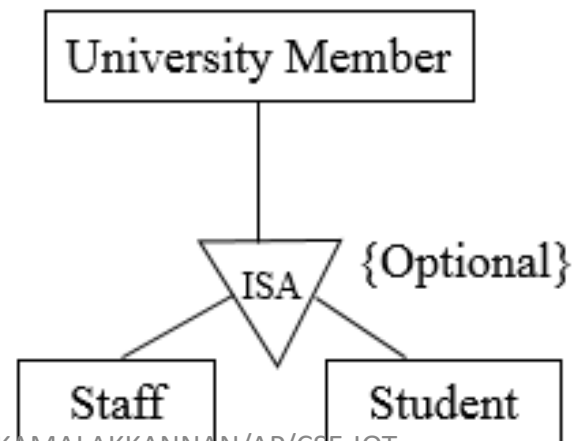
- Constraints on Specialization and Generalization
- Completeness:
- Total generalization and specialization: {Mandatory}
 - Each superclass (higher-level entity) must belong to subclasses (lower-level entity sets).





CONSTRAINTS

- Constraints on Specialization and Generalization
- Completeness:
- Partial generalization and specialization: {Optional}
 - Some superclasses may not belong to subclasses (lower-level entity sets).





CONSTRAINS

- Constraints on Specialization and Generalization:
- Types of Specializations - Condition-defined specialization:
 - determine exactly the entities of each sub class by placing a condition of the value of an attribute in the super class.



CONSTRAINS

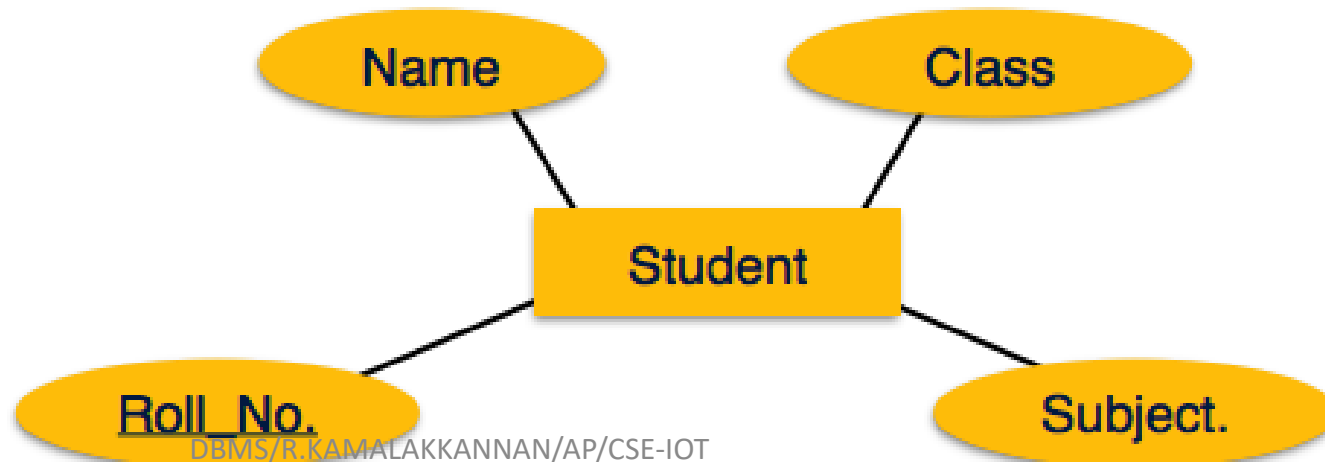
- Mapping of Entity Set to Relationship:
 - Each attribute of entity set becomes an attribute of the table.
 - The primary key attribute of entity set becomes an entity of the table.



CONSTRAINS

➤ Mapping of Entity Set to Relation:

- create table Student(Roll_No char(11),Name char(30),class char(30), subject char(30), primary key(Roll_NO))





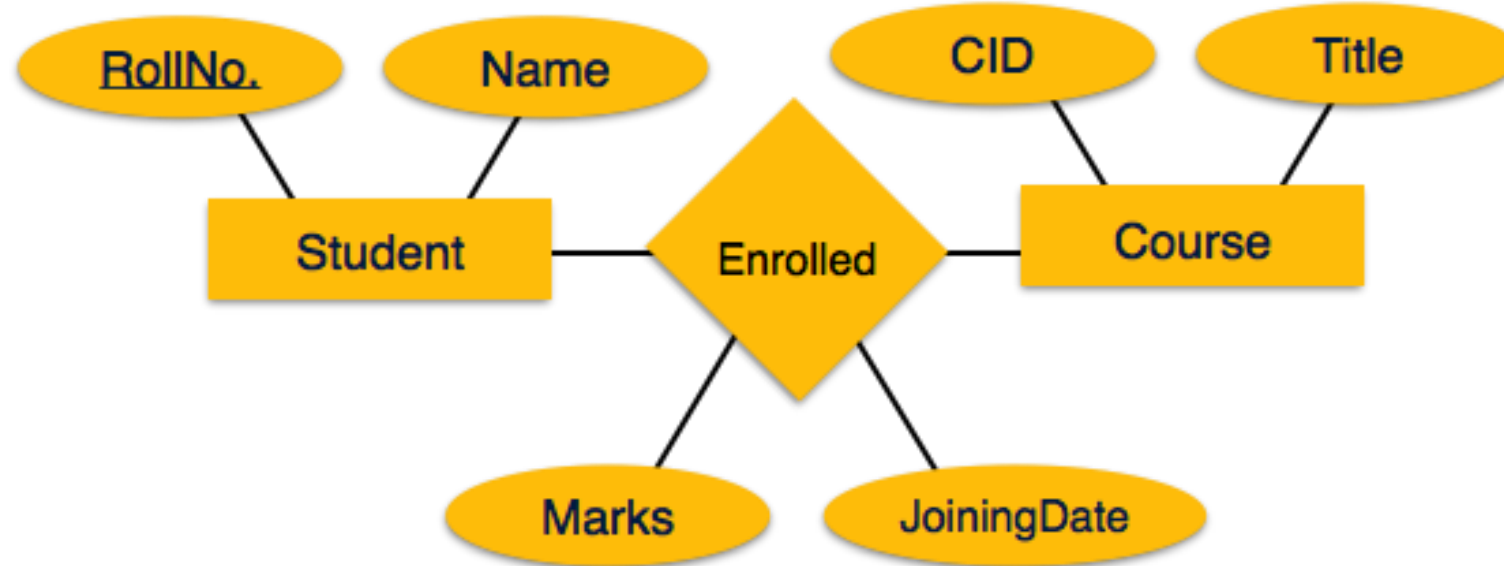
CONSTRAINS

- Mapping Relationship sets to tables:
 - Create a table for the relationship set.
 - Add all primary keys of the participating entity sets as fields of the table.
 - Add a field for each attribute of the relationship
 - Declare a primary key using all key fields from the entity sets.



CONSTRAINS

➤ Mapping Relationship sets to tables:





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➤ Mapping Relationship sets to tables:

➤ create table enrolled(Roll_No int, Name char(30), cid int, title char(30),
PRIMARY KEY (Roll_No, cid), FOREIGN KEY (Roll_No) REFERENCES
Student, FOREIGN KEY (cid) REFERENCES Course)



Conn...



Thank You.....