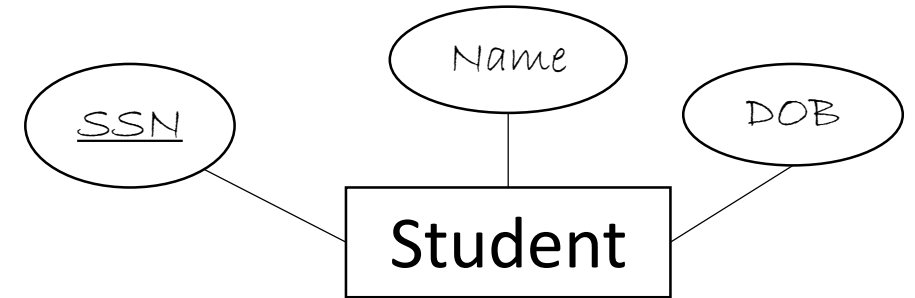


ER Mapping

- Regular (strong) Entity

Student

<u>SSN</u>	Name	DOB
------------	------	-----

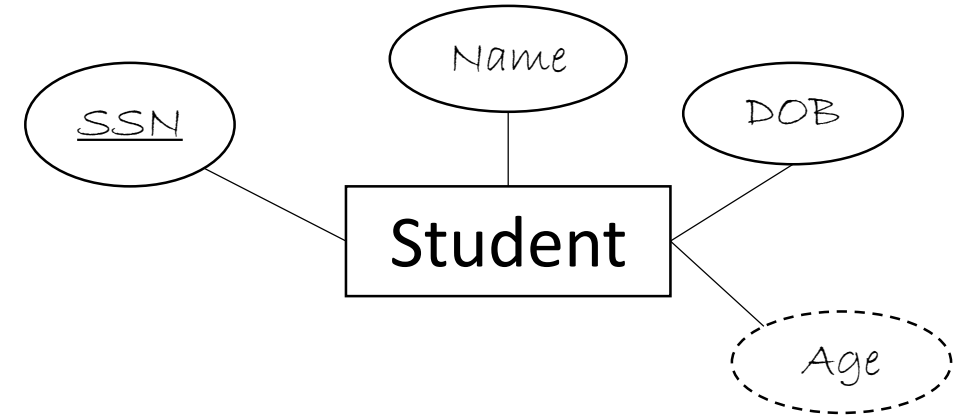


- Derived attribute

Student

<u>SSN</u>	Name	DOB
------------	------	-----

"Derived attribute is ignored from the relational tables"

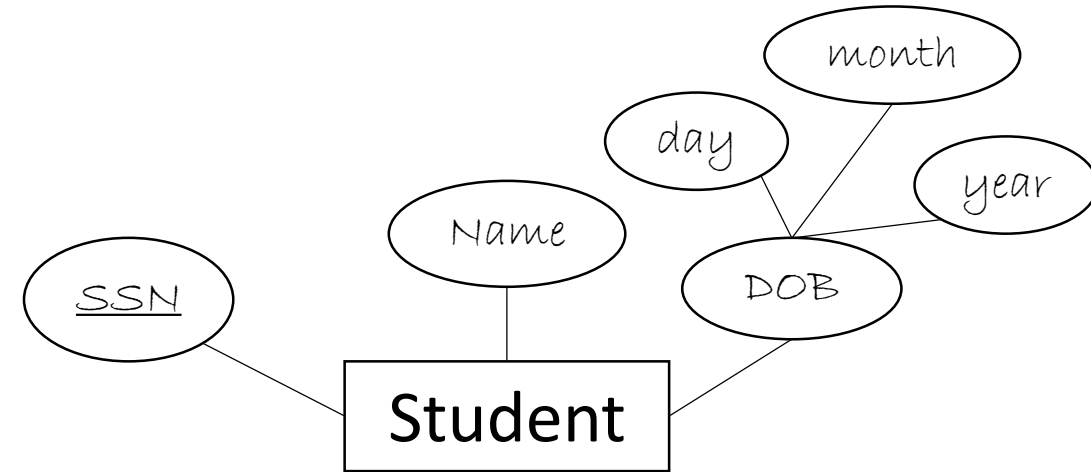


ER Mapping

- Composite attribute

Student

<u>SSN</u>	Name	day	month	year
------------	------	-----	-------	------



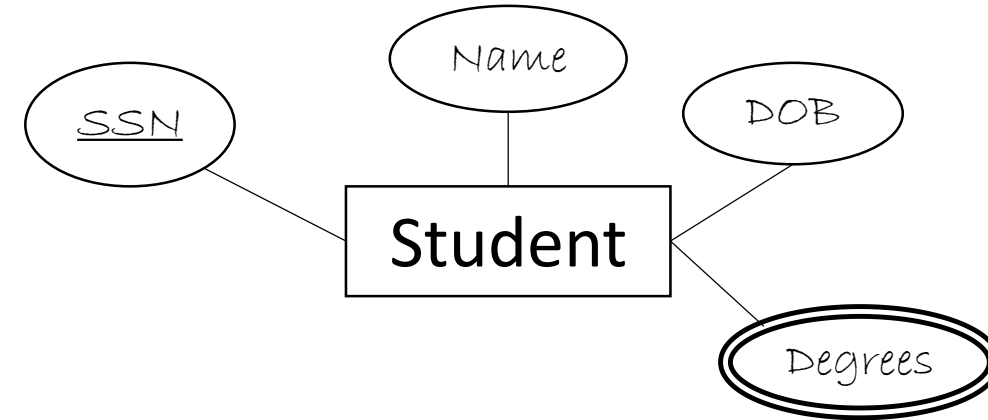
- Multivalued attribute

Student

<u>SSN</u>	Name	DOB
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Student_degrees

<u>SSN</u>	Degree
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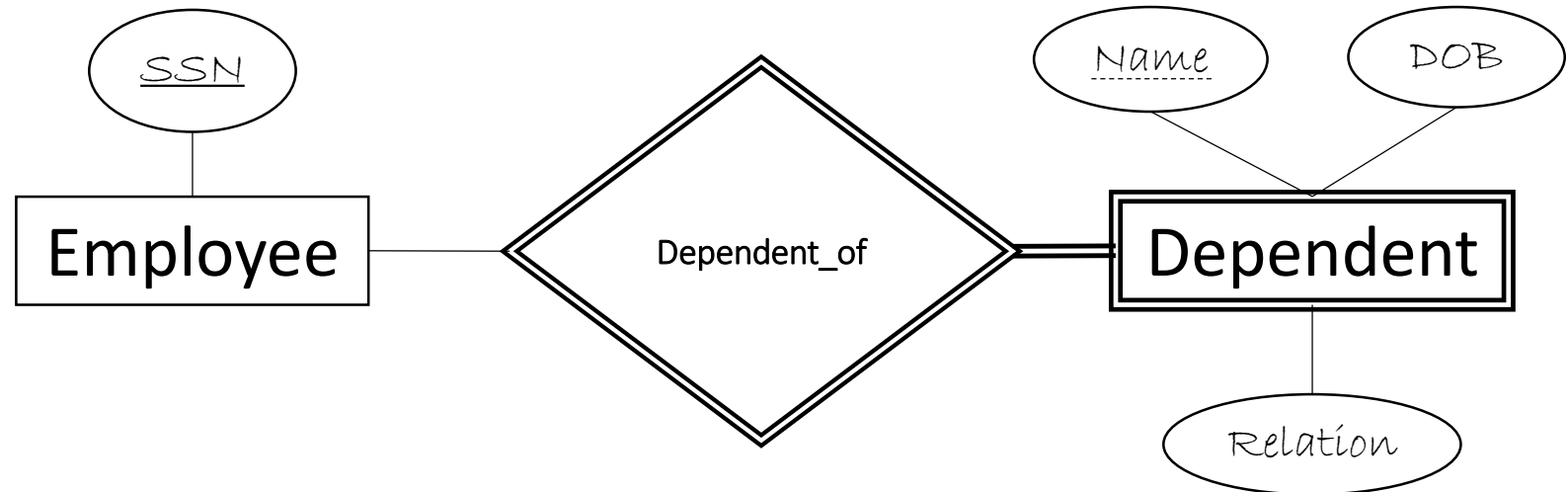


ER Mapping

- Weak Entity

Dependent

<u>SSN</u>	<u>Name</u>	DOB	Relation
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ER Mapping

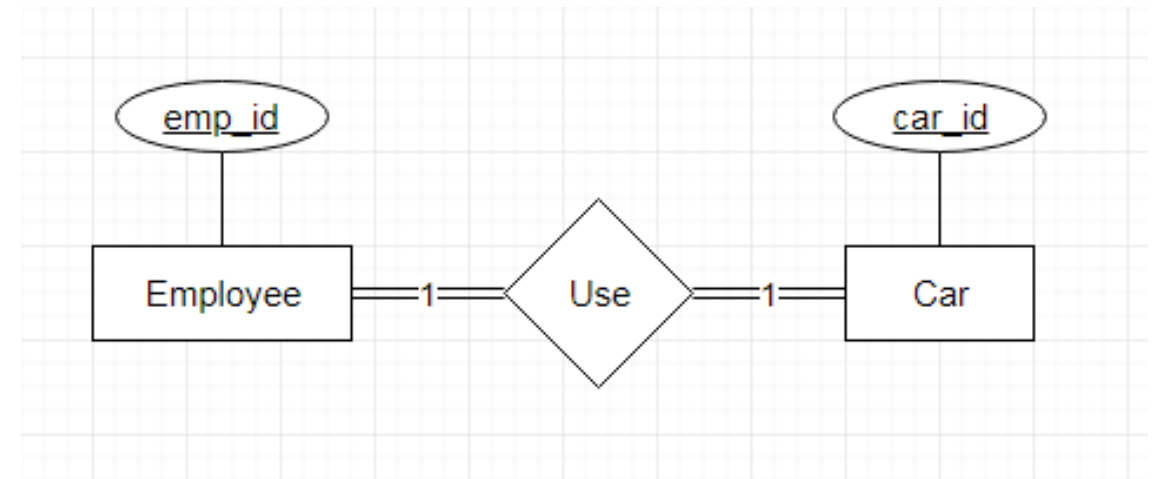
- Binary Relationship (1:1)

Employee

<u>Emp_id</u>	car_id
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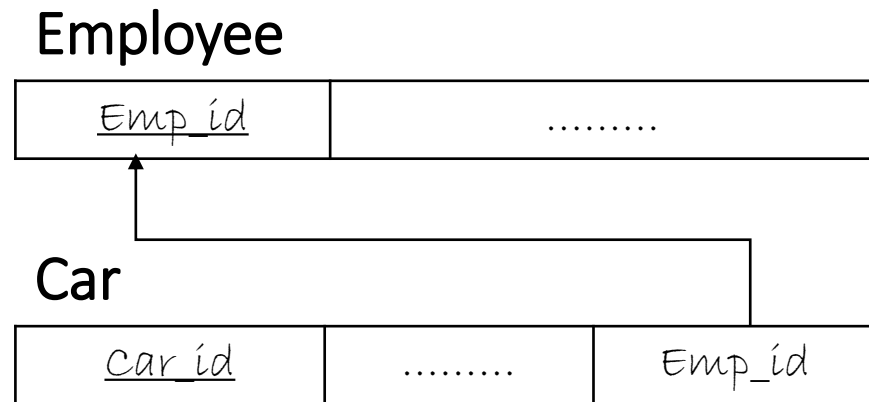
"Merged Relation"

When both participations are total

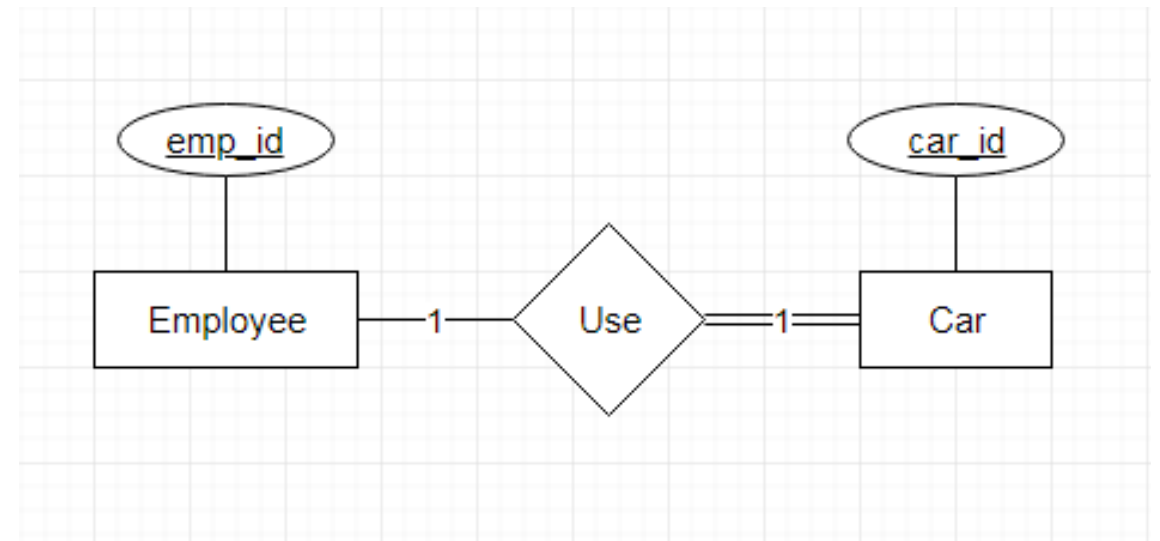


ER Mapping

- Binary Relationship (1:1)

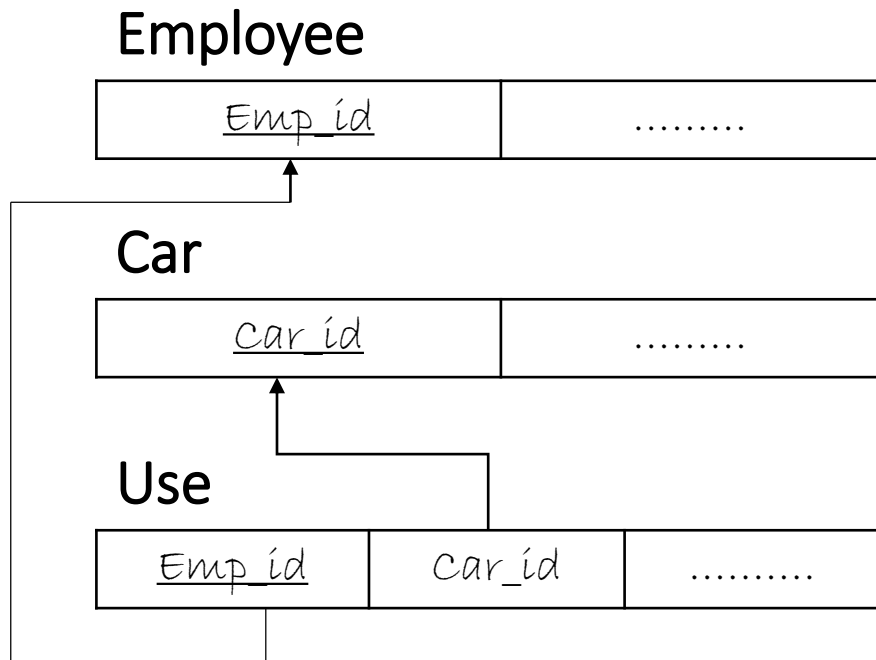


"foreign key approach"
When one participation is total
and the other is partial

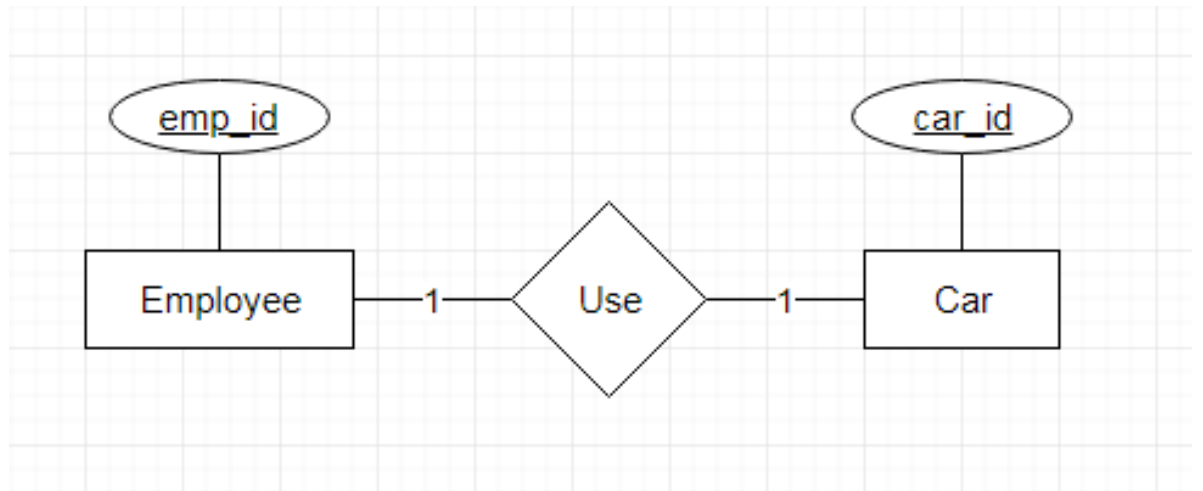


ER Mapping

- Binary Relationship (1:1)

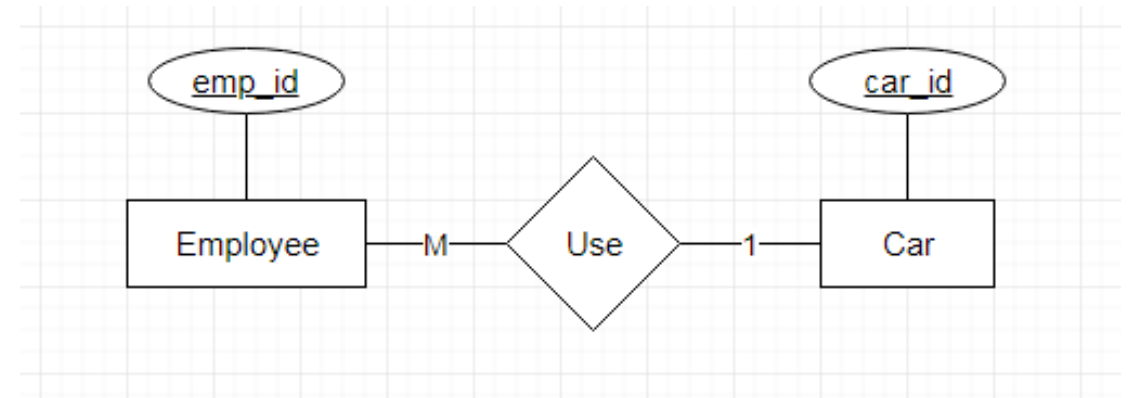
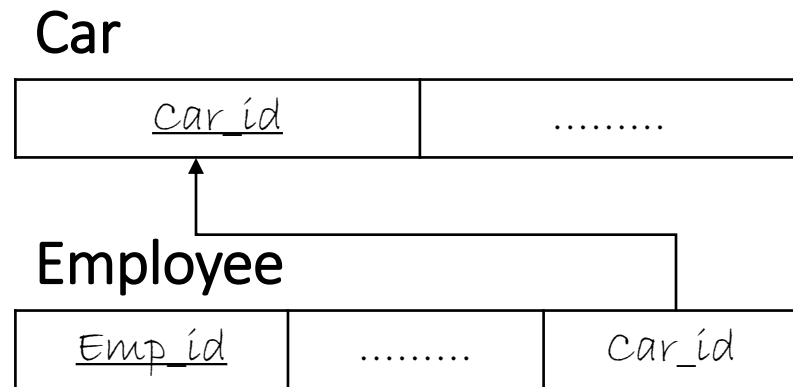


"Cross-reference Relation"
When both participations are partial



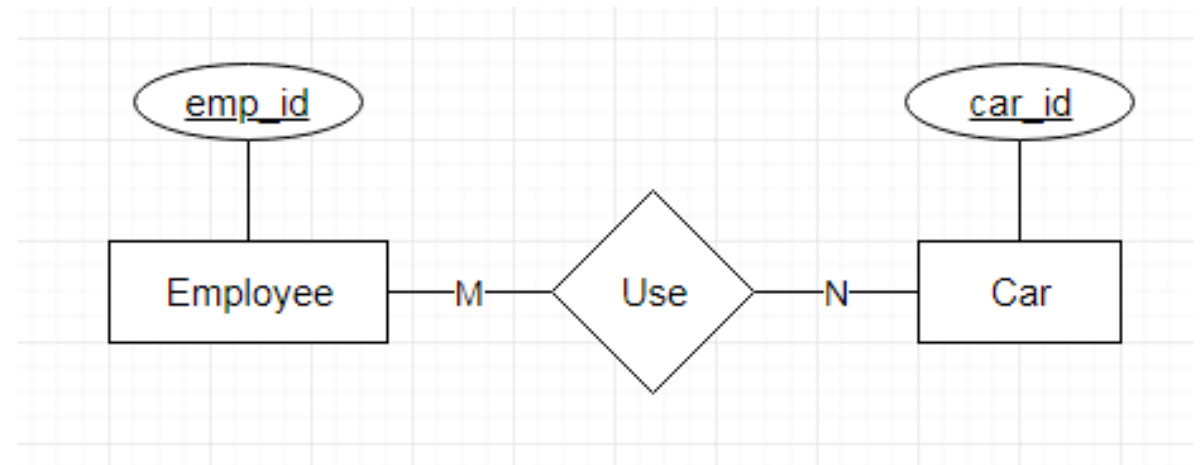
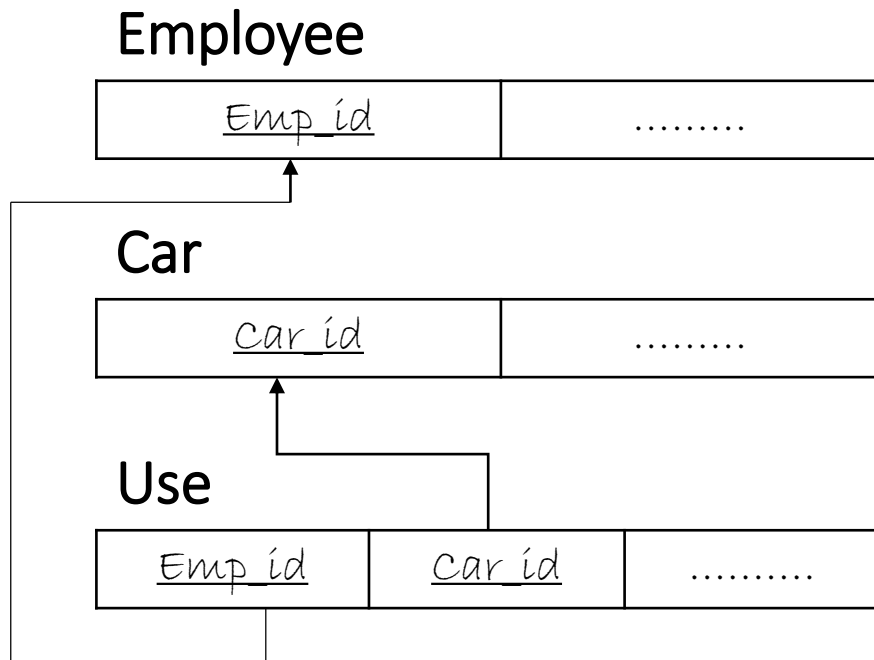
ER Mapping

- Binary Relationship (1:N)



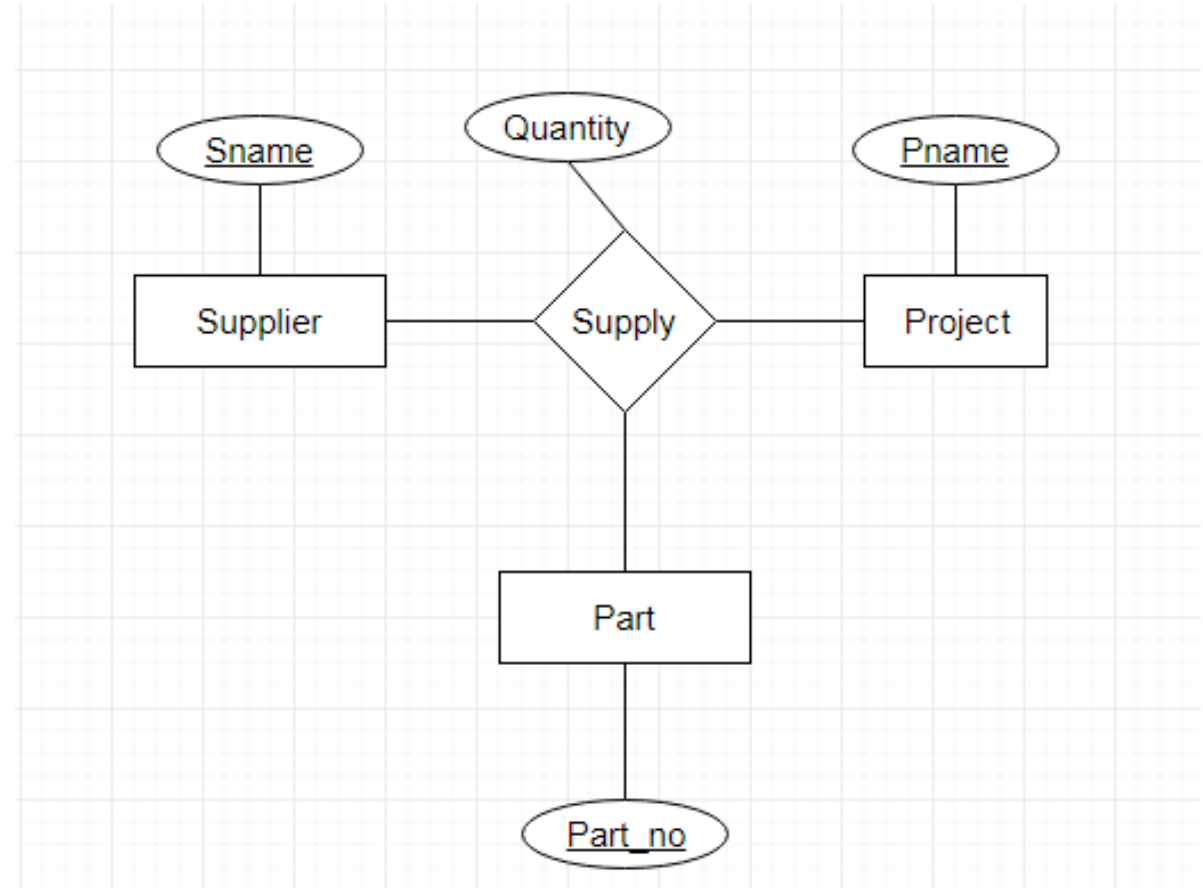
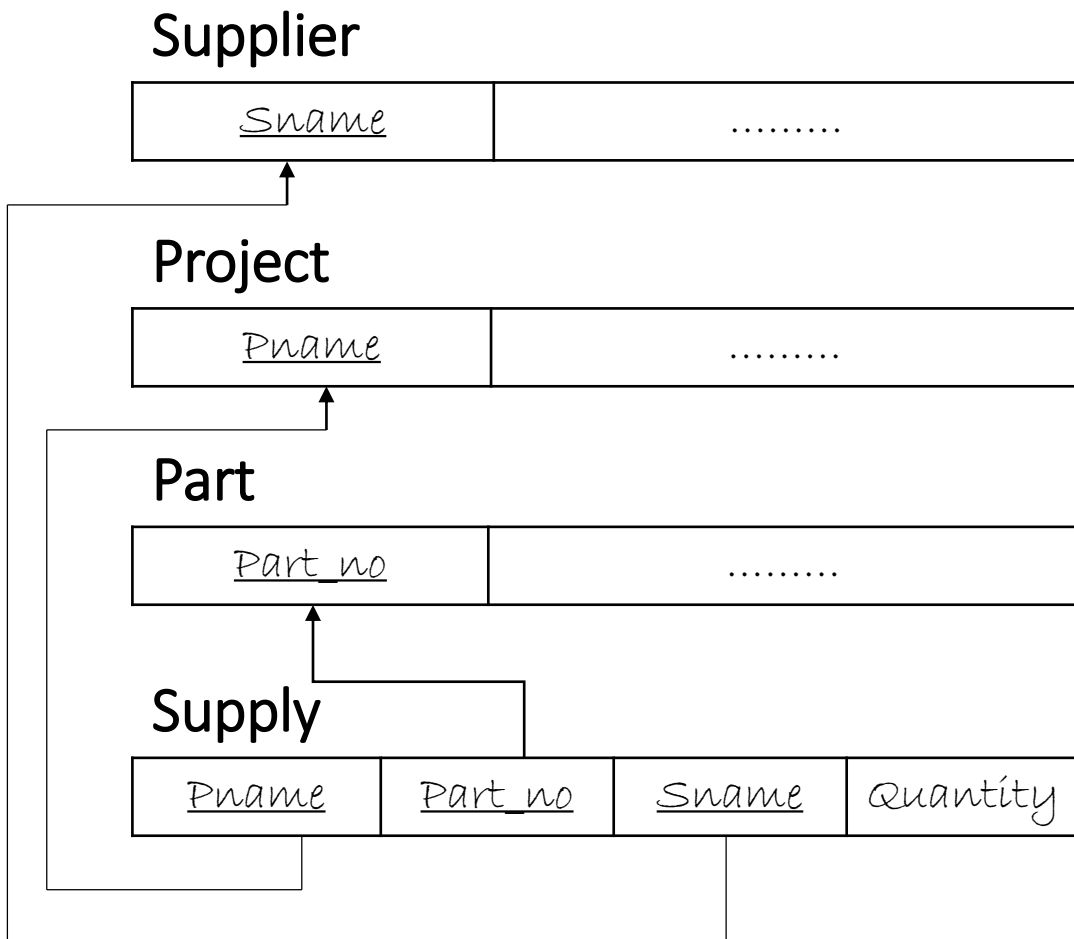
ER Mapping

- Binary Relationship (N:M)



ER Mapping

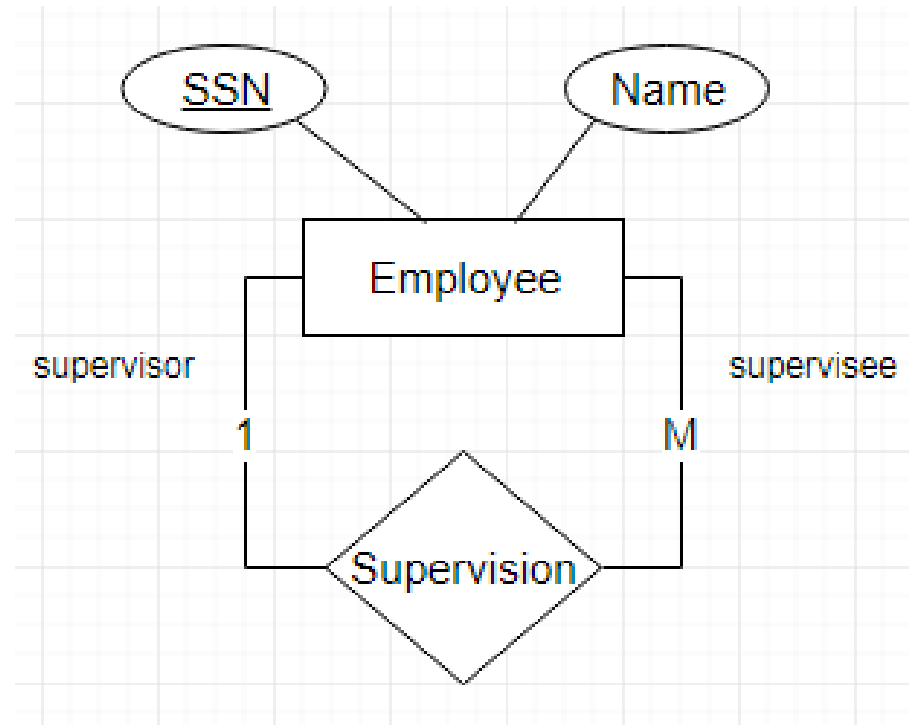
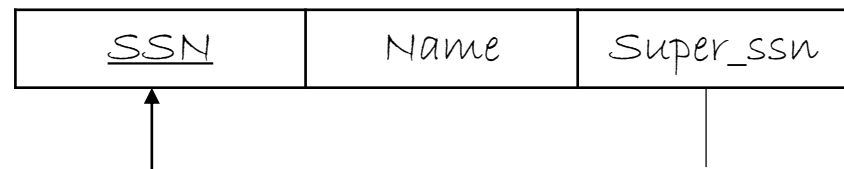
- N-ary Relationship



ER Mapping

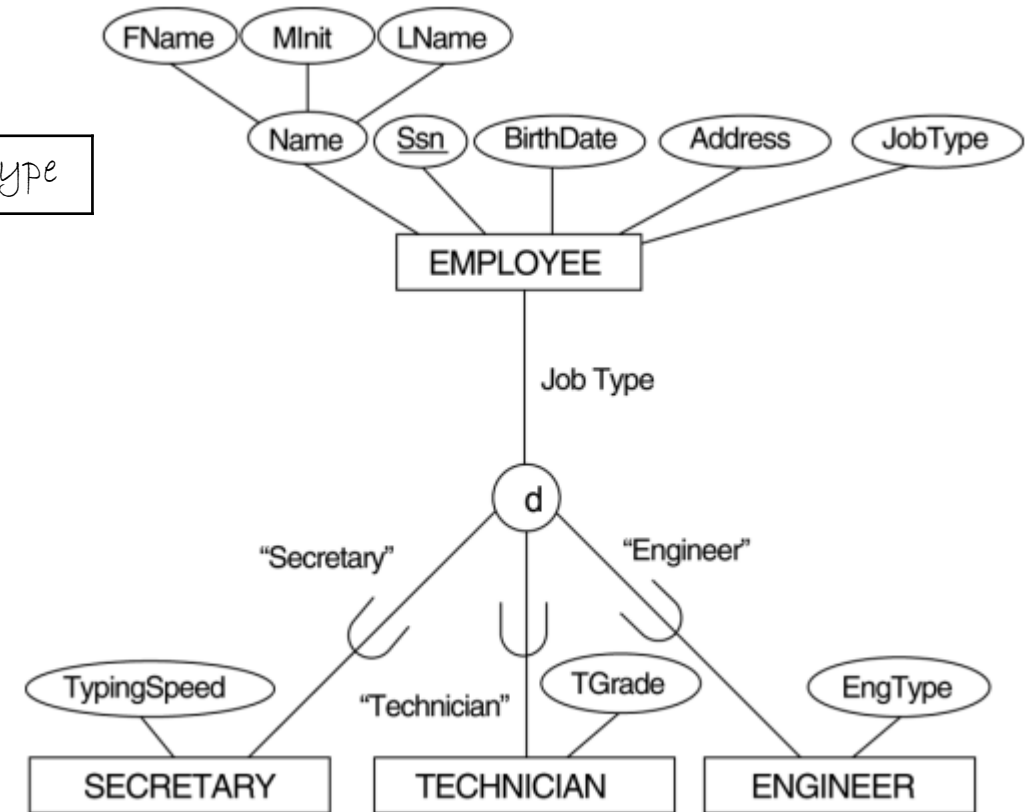
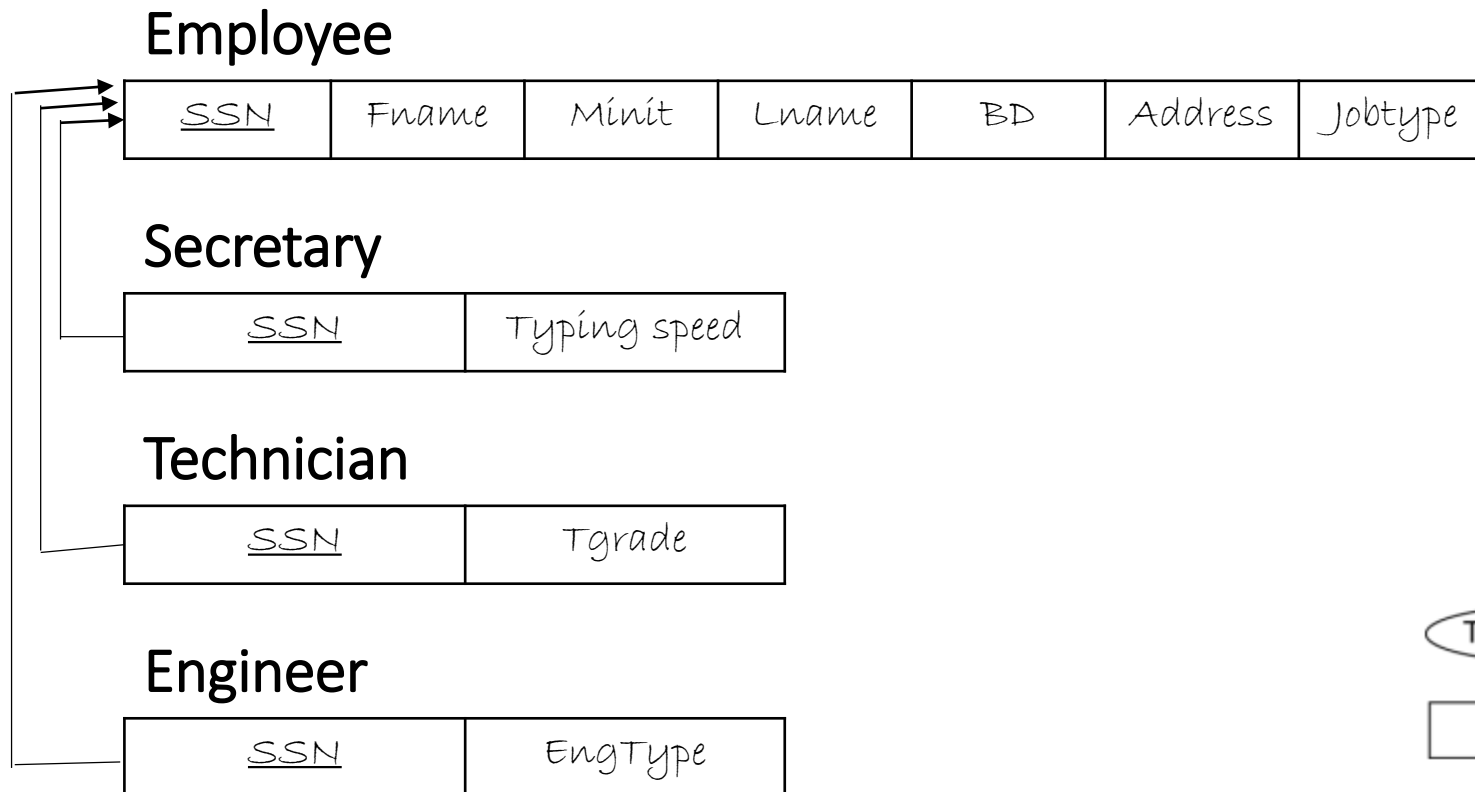
- Unary Relationship

Employee



EER Mapping

- 8A → multiple relations – superclass and subclasses



EER Mapping

- 8B → multiple relations – subclass relations only

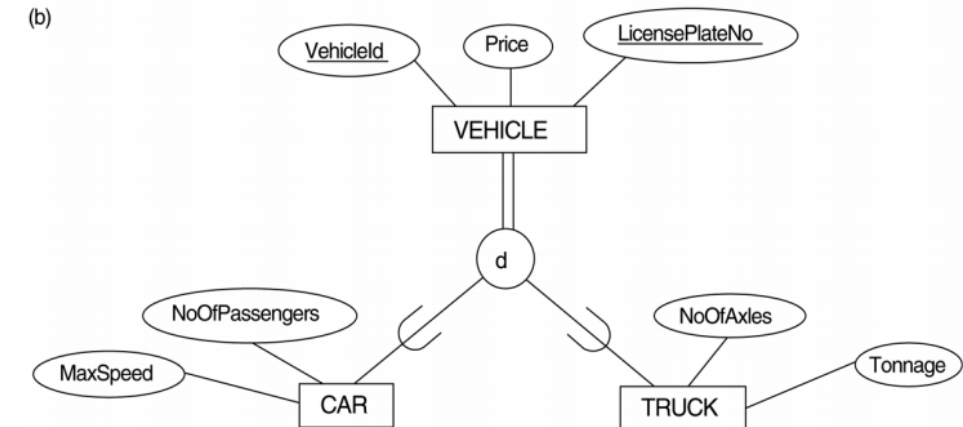
This option only works for a specialization whose subclasses are total

Car

<u>VehicleId</u>	<u>LicencePlateNo</u>	Price	MaxSpeed	NoOfPassengers
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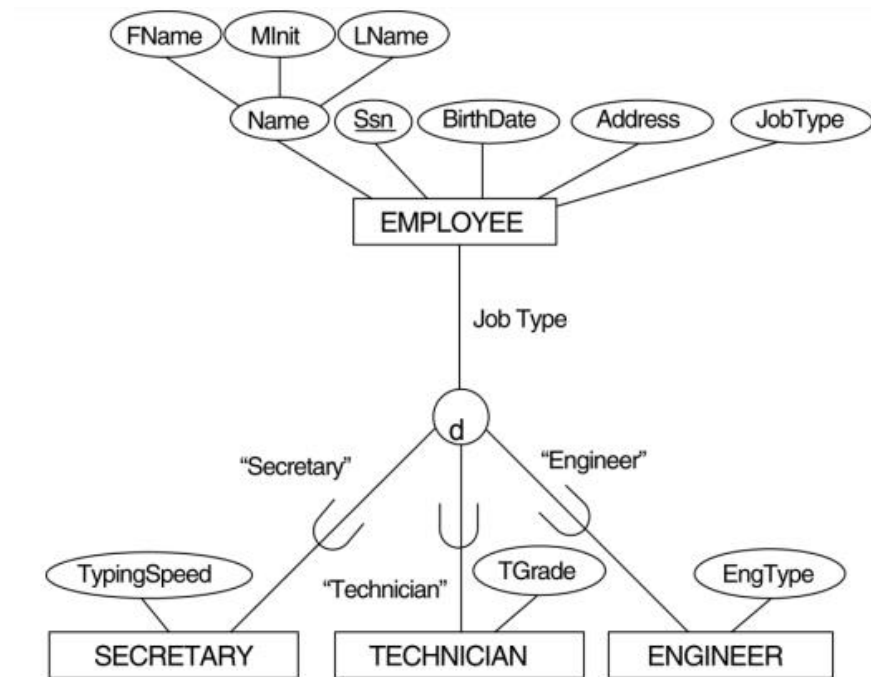
Truck

<u>VehicleId</u>	<u>LicencePlateNo</u>	Price	Tonnage	NoOfAxes
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EER Mapping

- 8C → Single relation with one type attribute

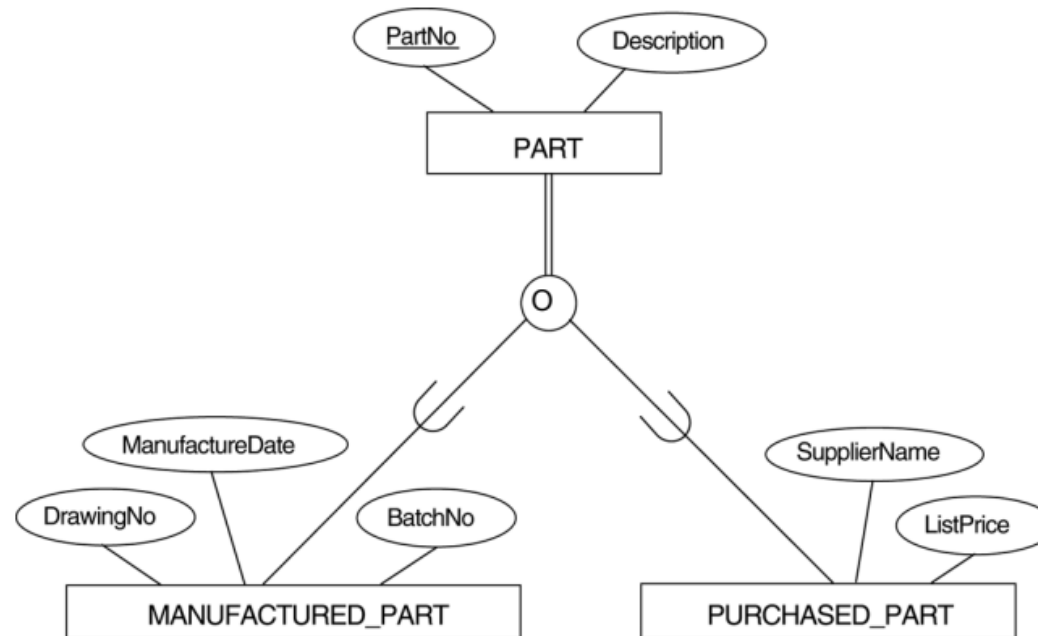


Employee

<u>SSN</u>	Fname	Minit	Lname	BD	Address	JobType	TypingSpeed	Tgrade	EngType
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EER Mapping

- 8D → Single relation with multiple type attribute



Part

<u>PartNo</u>	Description	Mflag	DrawingNo	ManufactureDate	BatchNO	Pflag	SupplierName	Listprice
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EER Mapping

- Union

Person

<u>SSN</u>	DriverLicenseNo	Name	Address	ownerId
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Bank

<u>BName</u>	BAddress	ownerId
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Company

<u>CName</u>	CAddress	ownerId
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Owner

<u>ownerId</u>

"surrogate key"

