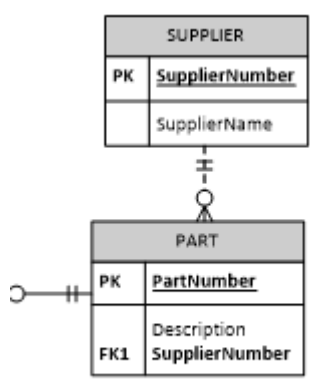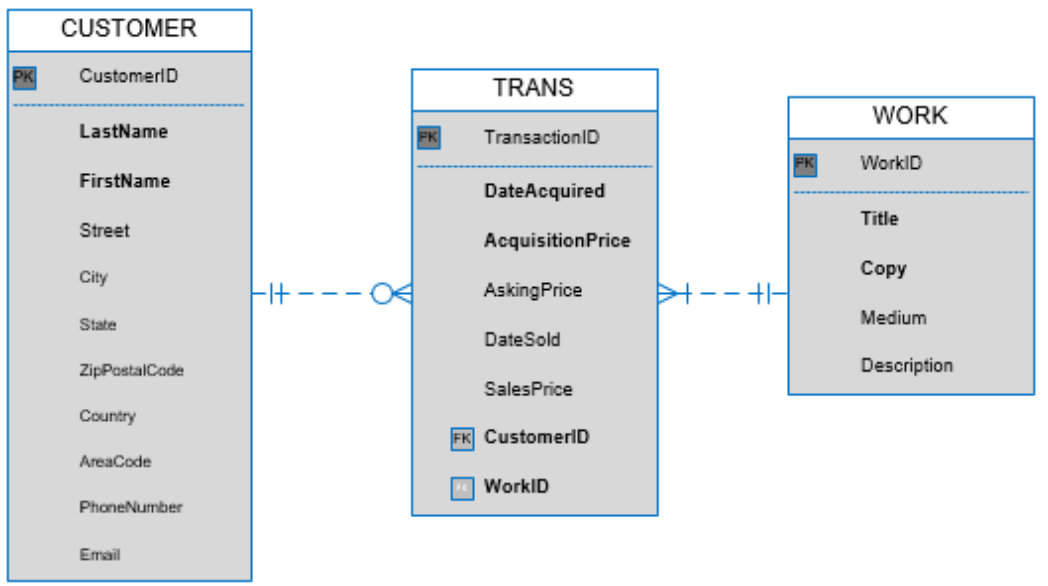Non-Identifying relationship: (Non-ID)

Strong entity: Existence does NOT depend on parent

TRANS entity is **not dependent** on WORK or CUSTOMER for its primary key.

Always look for whether - PK (parent) → FK (child)

CUSTOMER

PK	CustomerID
	LastName
	FirstName
	Street
	City
	State
	ZipPostalCode
	Country
	AreaCode
	PhoneNumber
	Email

TRANS

FK	TransactionID
	DateAcquired
	AcquisitionPrice
	AskingPrice
	DateSold
	SalesPrice
FK	CustomerID
	WorkID

WORK

PK	WorkID
	Title
	Copy
	Medium
	Description

SUPPLIER

PK	SupplierNumber
	SupplierName

PART

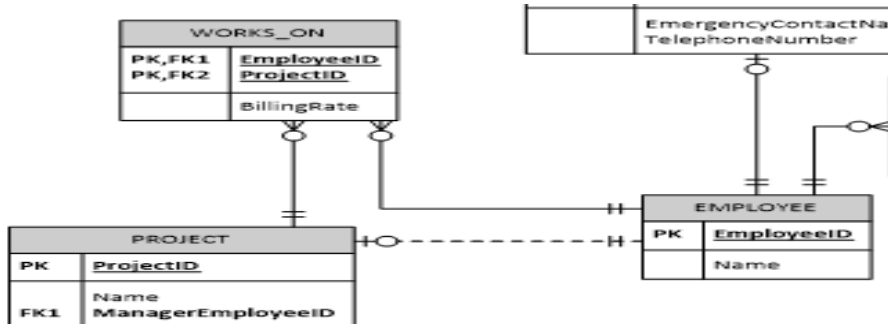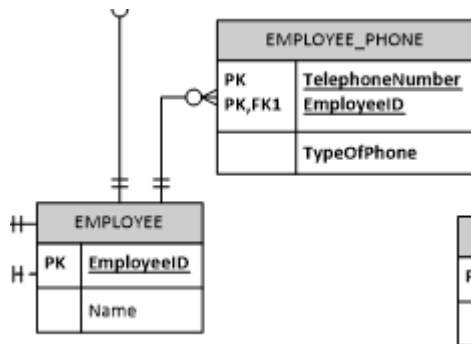| PK	PartNumber
FK1	Description SupplierNumber

Identifying relationship: (ID)

Weak entity: existence-dependent on the owner entity

Always look for whether- PK (parent) → PK (child)

WORKS_ON entity is **dependent** on PROJECT or EMPLOYEE for its primary key.

WORKS_ON	
PK,FK1	EmployeeID
PK,FK2	ProjectID
	BillingRate

	EmergencyContactNa
	TelephoneNumber

EMPLOYEE	
PK	EmployeeID
	Name

PROJECT	
PK	ProjectID
FK1	Name
	ManagerEmployeeID

s

EMPLOYEE_PHONE	
PK	TelephoneNumber
PK,FK1	EmployeeID
	TypeOfPhone

EMPLOYEE	
PK	EmployeeID
	Name

P

Split many to many to associative entity

Min/Max cardinality:

Pick a side. A relationship should have *2* maximin cardinality from each side and *2* minimum cardinality from *each side*

Min cardinality of *0* means *optional* relationship while *1* means *mandatory* relationship

EG: One instance of an _employee_ can be related to _zero, and many_ instances of an _employee_phone_

Thus maximum cardinality is: many

Other way around

Maximum cardinality is: one