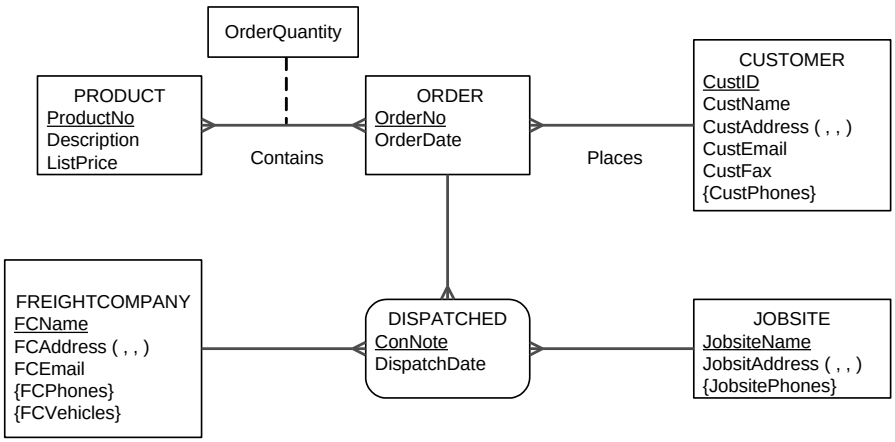
Map the following ERD to tables:



Step1. Map regular entities

Composite attributes

Multi-value attributes

Step 2. Map weak entities (not required)

Step 3. Map Binary relationships

One-to-many

Many-to-many

One-to-one

Step 4. Map associative entities

Identifier not assigned

Identifier assigned

Step 5. Map unary relationships

One-to-many

Many-to-many

Step 6. Map ternary (and *n*-ary) relationships

Step 7. Show referential integrity constraints

STEP ONE: MAP REGULAR ENTITIES

Create a Relation for each regular entity.

Composite Attributes –

Separate into individual attributes in the same relation

Multivalue Attributes –

mv attributes removed from original relation, placed in new relation

Set PK as combination of mv Attribute and PK from original relation

PRODUCT

ProductNo	Description	ListPrice

ORDER

OrderNo	Date

CUSTOMER

CustID	CustName	CustAddress	CustCity	CustState	CustCode	CustEmail	CustFax

CUSTPH

CustID	**CustPhone**

JOBSITE

JobsiteName	JobsiteAddr	JobsiteCity	JobsiteState	JobsiteState	JobsitePCode

JOBSITEPHONE

JobsiteName	JobsitePhone

FREIGHTCO

FCName	FCAddress	FCCity	FCState	FCPcode	FCEmail

FREIGHTCO_PHONE

FCName	**FCPhone**

FREIGHTCO_VEHICLE

FCName	**VehicleType**

STEP TWO: WEAK ENTITIES – N/A

STEP THREE: BINARY RELATIONSHIPS

- 1 to Many - Include the primary key of the relation on the one side as a foreign key in the relationship on the many side
- Many to Many - Create a new relation for the relationship, include its attributes, and the the pks of the participating entities.

PRODUCT

ProductNo	Description	ListPrice

PRODUCT_ORDER

ProductNo	**OrderNo**	OrderQty

ORDER

OrderNo	Date	**CustID**

CUSTOMER

CustID	CustName	CustAddress	CustCity	CustState	CustPCode	CustEmail	CustFax

CUSTPH

CustID	**CustPhone**

JOBSITE

JobsiteName	JobsiteAddr	JobsiteCity	JobsiteState	JobsiteState	JobsitePCode

JOBSITEPHONE

JobsiteName	JobsitePhone

FREIGHTCO

FCName	FCAddress	FCCity	FCState	FCPcode	FCEmail

FREIGHTCO_PHONE

FCName	**FCPhone**

FREIGHTCO_VEHICLE

FCName	**VehicleType**

Step 4: Associative Entities

Relation for each participating entitiy and one for the associative entity

PK depends on if unique identitier assigned in ERD

FKs are the PKs of the participating entities

PRODUCT

ProductNo	Description	ListPrice

PRODUCT_ORDER

ProductNo	**OrderNo**	OrderQty

ORDER

OrderNo	Date	***CustID***

CUSTOMER

CustID	CustName	CustAddress	CustCity	CustState	CustPCode	CustEmail	CustFax

CUSTPH

CustID	**CustPhone**

JOBSITE

JobsiteName	JobsiteAddr	JobsiteCity	JobsiteState	JobsiteState	JobsitePCode

JOBSITEPHONE

JobsiteName	JobsitePhone

FREIGHTCO

FCName	FCAddress	FCCity	FCState	FCPcode	FCEmail

FREIGHTCO_PHONE

FCName	**FCPhone**

FREIGHTCO_VEHICLE

FCName	**VehicleType**

DISPATCH

CONNOTE	DISPATCHDATE	*FCNAME*	*JOBSITENAME*	*ORDERNO*

Step 5. Map unary relationships – not required

Step 6. Map ternary (and *n*-ary) relationships – not required as have mapped DISPATCH as an associative entity

Step 7: Usually done during process

Arrows originating FROM where the attribute appears as a foreign key TO where the attribute appears as a primary key.