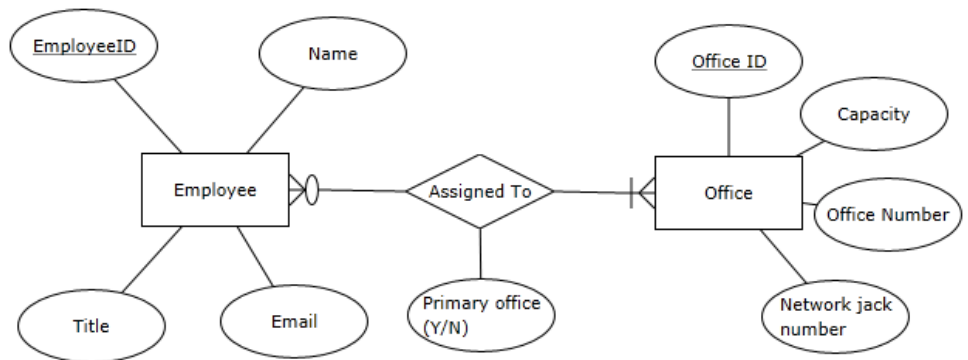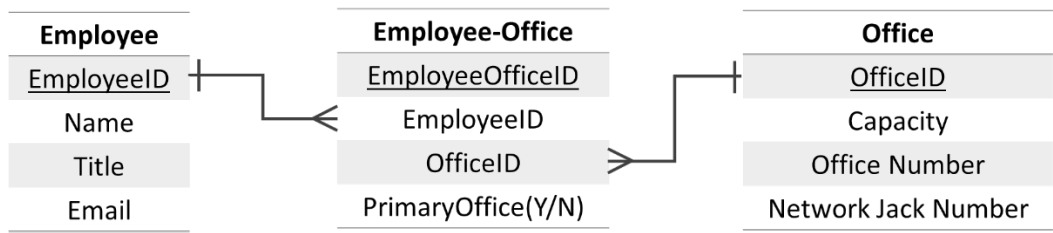# In-class Exercise: Creating Schemas

Take the ERDs from the previous in-class exercise (on the next page) and convert each to a schema. Remember, the schema is the implementation of an ERD – you'll wind up with a set of tables that make up your database.

1. Create a table for every entity

2. Create table fields for every entity's attributes

3. Implement relationships between the tables

| 1:many relationships | • Primary key field of "1" table put into "many" table as foreign key field |

| many:many relationships | • Create new table
 • 1:many relationships with original tables |

| 1:1 relationships | • Primary key field of one table put into other table as foreign key field |

So, for example, if you have this (very simple) ERD with a many-to-many relationship:
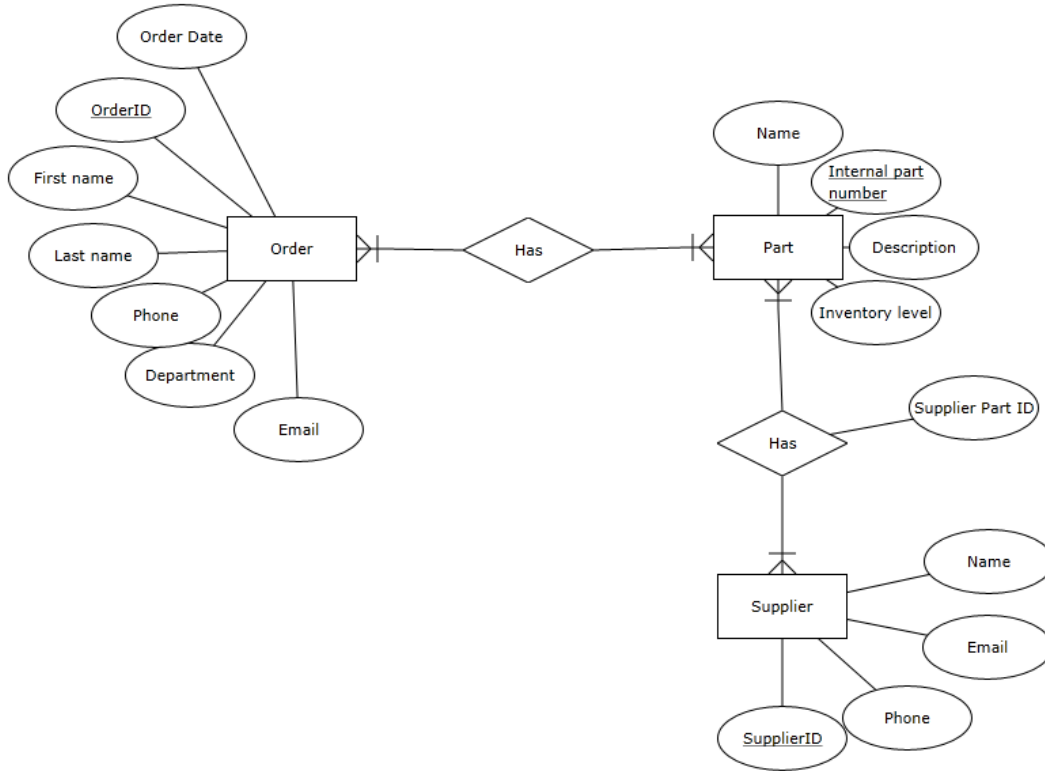
EmployeeID Name Office ID Capacity

Employee Assigned To Office Office Number

Title Email Primary office (Y/N) Network jack number

You'll wind up with this schema (note that we only specified maximum cardinality):

Employee	Employee-Office	Office
EmployeeID	EmployeeOfficeID	OfficeID
Name	EmployeeID	Capacity
Title	OfficeID	Office Number
Email	PrimaryOffice(Y/N)	Network Jack Number

New table with

- New primary key
- Foreign keys from other tables' primary keys
- Attribute describing the relationship (if applicable)

Now create the schemas for the following ERDs:

Scenario 1: Inventory and Parts

Scenario 2: Housing Authority