

# Mapping ER Diagrams to Relational Schemas

- Each strong entity set becomes a table
- Non-composite, single-valued attributes become attributes of table
- Composite attributes: either make the composite a single attribute or use individual attributes for components, ignoring the composite
- Multi-valued attributes: remove them to a new table along with the primary key of the original table; also keep key in original table
- Weak entity sets become tables-add primary key of owner entity
- Binary Relationships:
  - 1:M-place primary key of 1 side in table of M side as foreign key
  - 1:1- use either key as foreign key in the other table
  - M:M-create a relationship table with primary keys of related entities, along with any relationship attributes
- Ternary or higher degree relationships: construct relationship table of keys, along with any relationship attributes
- Recursive relationship-use foreign key if 1:M; use relationship table if M:M