EE-R Model (Extended Entity Relationship Model)

Top-left diagram

Id

SUPPLIER

(s,j,p)

N

Id

SUPPLIES

Id

PROJECT — M — SUPPLIES — 1 — PART

Bottom-left diagram

(s,j,p)

SUPPLIER

ASSOCIATED_TO

SUPPLIES

(s,p)

(s,j)

PROJECT

PART

USES

(j,p)

Need to enforce additonal constraints to make 3 binary relationships equivelent to a single ternary relationship.
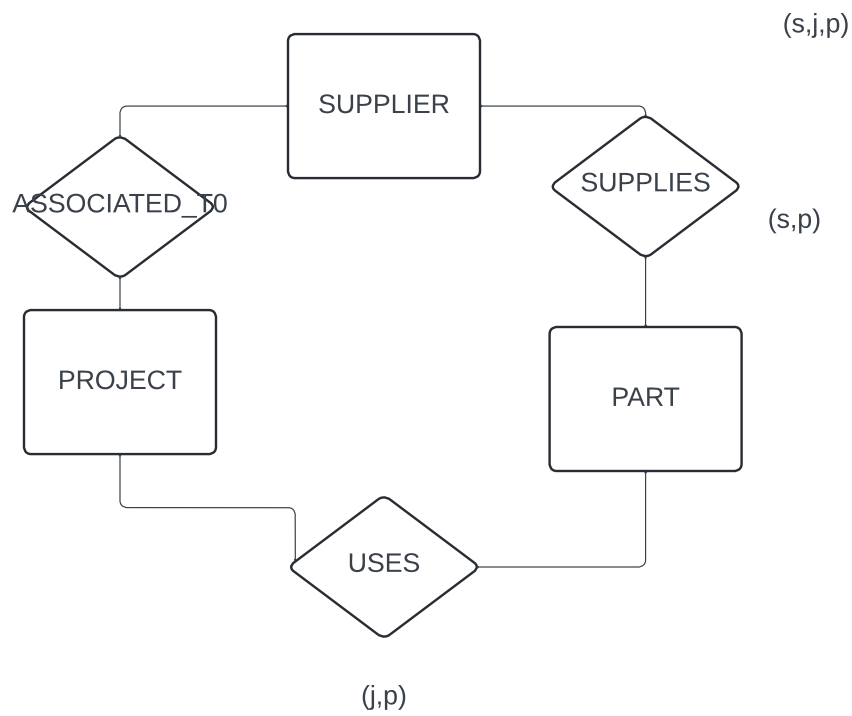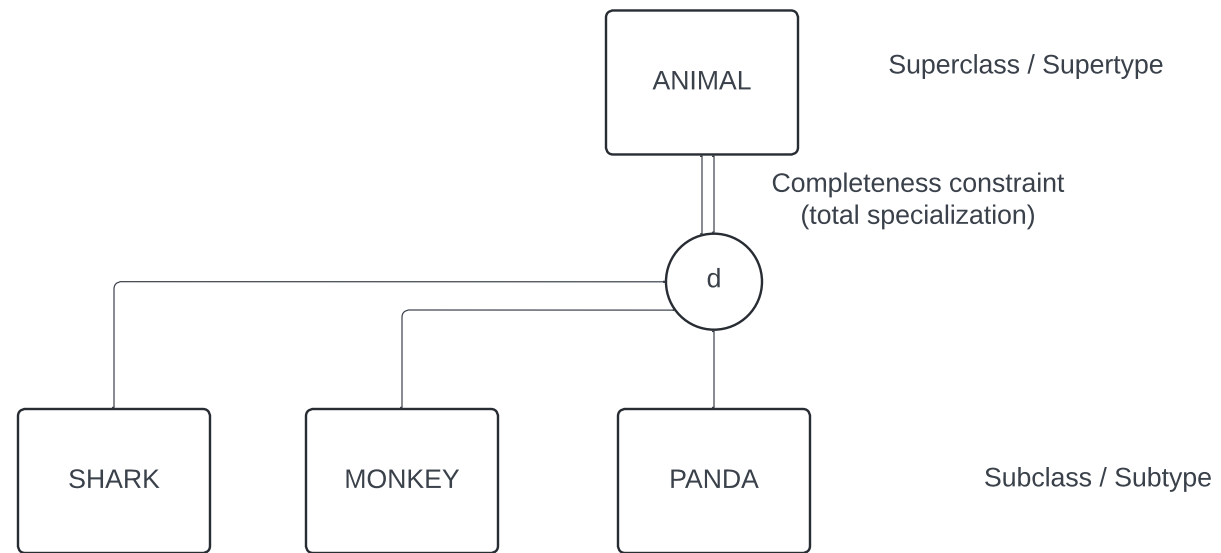
Right side

Inheritance -

Specialization - process of going from a less specific entity type, to groupingings of more specific entity types.

ANIMAL

SHARK   MONKEY   PANDA

ANIMAL

Superclass / Supertype

Takeaway 1 - I can't be an SHARK, MONKEY, or PANDA without being an ANIMAL

Completeness constraint (total specialization)

d

SHARK   MONKEY   PANDA

Subclass / Subtype

Constraints of Subclass / Superclass relationships?
• Completeness Constraint
• Disjointness Constraint