

This document summarizes the final logical design of the XYZ Company database system. All relations are in Third Normal Form (3NF), and transformations were applied to support implementation in a relational DBMS such as Oracle.

Supertype/Subtype Structure:

- Person (superclass) is divided into:
 - Employee
 - Customer
 - PotentialEmployee

Multivalued Attributes:

- Phone numbers were separated into a PhoneNumber table with a composite PK.

Recursive Relationships:

- SupervisorID in Employee references Employee.PersonalID.

Many-to-Many Relationships Resolved:

- Person \leftrightarrow JobPosition \rightarrow Application
- Product \leftrightarrow Part \rightarrow ProductPart
- Vendor \leftrightarrow Part \rightarrow VendorPart
- Person \leftrightarrow MarketingSite \rightarrow SiteAssignment

Composite Keys Used In:

- SalaryTransaction: (TransactionNumber, EmpID)
- ProductPart: (ProductID, PartID)
- VendorPart: (VendorID, PartID)
- SiteAssignment: (SiteID, PersonalID)
- DepartmentAssignment: (EmpID, DepartmentID, StartDate)

All 19 relations and their attributes, PKs, and FKs are fully documented in the NormalizedRelations.pdf file.

This logical model is consistent with the EER diagram and has been normalized for integrity and implementation.