

These assumptions were made during the design and implementation. All entity identifiers (e.g., PersonID, EmployeeID, CustomerID, etc.) are assumed to be unique integers, either system-generated or manually assigned. The Person entity is a generalized superclass for individuals involved in the system, including employees, customers, and job candidates. Each specialized object has its own table connected by shared identifiers, which allows logical inheritance and not physical table-level inheritance.

I assumed that the employees are also persons, customers are optionally persons, and candidates are from persons too. Each employee can have many salary records and departmental assignments, maintained in the Salary and WorkHistory tables. Employees are interviewers and are able to supervise other employees from a self-referencing foreign key. Customers are connected to preferred sales representatives, who are employees. Each sale is with a customer, site, product, and salesperson, all that should exist before the transaction record.

Products have one or more parts, from the vendors, with prices stored in the ProductComponent and ProductSupplier tables. A product can only be sold if the components are available. Job listings are department-specific and accept applications from candidates that can go through multiple interviews from one or more employees. Grades assigned to interviews are constrained between 0 and 100. All date-related attributes like SaleTime, StartTime, ApplicationDate are stored using the DATE or DATETIME data type.