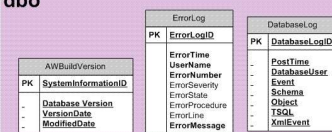


dbo

Rev 10.00.0009



```

    erDiagram
        DEPARTMENT ||--o{ EMPLOYEE : "has"
        EMPLOYEE ||--o{ SHIFT : "has"
        EMPLOYEE ||--o{ JOBCANDIDATE : "has"
        EMPLOYEE ||--o{ EMPLOYEEPAYHISTORY : "has"
        DEPARTMENT ||--o{ EMPLOYEE : "U1"
        EMPLOYEE ||--o{ SHIFT : "U2"
        EMPLOYEE ||--o{ JOBCANDIDATE : "U3"
        EMPLOYEE ||--o{ EMPLOYEEPAYHISTORY : "U4"
  
```

The diagram illustrates the following tables and their attributes:

- Department** (PK: DepartmentID): Name, GroupName, ModifiedDate.
- Employee** (PK: FK1, BusinessEntityID): NationalIDN, LoginID, ShiftID, JobTitle, BirthDate, MaritalStatus, Gender, HireDate, Salary/HourlyRate, VacationHours, SickLeaveHours, CurrentFlag, Rowguid, ModifiedDate.
- Shift** (PK: ShiftID): Name, StartTime, EndTime, ModifiedDate.
- JobCandidate** (PK: PK1, FK1, BusinessEntityID, JobCandidateID): Resume, ModifiedDate.
- EmployeePayHistory** (PK: FK1, PK1, BusinessEntityID, RateChangeDate): Rate, PayFrequency, ModifiedDate.

Relationships are indicated by lines with crow's foot notation:

- Department to Employee:** One-to-many relationship (U1).
- Employee to Shift:** One-to-many relationship (U2).
- Employee to JobCandidate:** One-to-many relationship (U3).
- Employee to EmployeePayHistory:** One-to-many relationship (U4).

Sales

Person

roduction

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The diagram illustrates the following entities and their attributes:

- SalesPerson**: PK.FK1 BusinessEntityID, FK2 TerritoryID, SalesQuota, Bonus, CommissionPct, SalesYTD, SalesLastYear, rovguid, ModifiedDate
- SalesOrderHeader**: PK.FK5 BusinessEntityID, PK SalesOrderID, FK7 ShipMethodID, RevisionNumber, OrderDate, ShipDate, Status, U2 OnlineOrderFlag, SalesOrderNumber, PurchaseOrderNumber, AccountNumber, FK6 TerritoryID, FK1 BillToAddressID, FK2 ShipToAddressID, FK6 CreditCardID, CreditCardApprovalCode, CurrencyRateID, FK4 SubTotal, TaxAmt, Freight, TotalDue, Comment, U1 rovguid, ModifiedDate
- SalesTerritory**: PK TerritoryID, U1 Name, CountryRegionCode, Group, SalesYTD, SalesLastYear, CostYTD, CostLastYear, U2 rovguid, ModifiedDate
- Customer**: PK CustomerID, FK2 PersonID, FK3 TerritoryID, FK1 AccountNumber, U2 rovguid, ModifiedDate
- Store**: PK.FK1.FK2 BusinessEntityID, Name, Demographics, rovguid, ModifiedDate
- SalesPersonQuoteHistory**: PK.FK1 BusinessEntityID, PK.FK2 QuoteID, SalesQuota, rovguid, ModifiedDate
- SalesTerritoryHistory**: PK.FK1 BusinessEntityID, PK.FK2 TerritoryID, PK StartDate, EndDate, rovguid, ModifiedDate
- PersonCreditCard**: PK.FK2 BusinessEntityID, PK.FK1 CreditCardID, rovguid, ModifiedDate
- CreditCard**: PK CreditCardID, U1 CardType, CardNumber, ExpMonth, ExpYear, rovguid, ModifiedDate

Relationships and Cardinalities:

- SalesPerson** to **SalesOrderHeader**: FK2 to FK7 (1:M)
- SalesPerson** to **SalesTerritory**: FK2 to PK (1:M)
- SalesPerson** to **SalesPersonQuoteHistory**: PK.FK1 to PK.FK1 (1:M)
- SalesPerson** to **SalesTerritoryHistory**: PK.FK1 to PK.FK1 (1:M)
- SalesTerritory** to **Customer**: PK to FK2 (1:M)
- Customer** to **Store**: PK to PK.FK1.FK2 (1:M)
- Customer** to **PersonCreditCard**: PK to PK.FK1 (1:M)
- PersonCreditCard** to **CreditCard**: PK.FK1 to PK (1:M)
- SalesOrderHeader** to **CreditCard**: FK6 to FK6 (1:M)
- SalesOrderHeader** to **PersonCreditCard**: FK6 to PK.FK1 (1:M)

```

classDiagram
    class BusinessEntity {
        BusinessEntityID PK
        Name
        rowguid
        ModifiedDate
    }
    class Person {
        BusinessEntityID PK_FK1
        PersonTypeID PK_FK2
        NameStyle
        Title
        FirstName
        MiddleName
        LastName
        Suffix
        EmailPromotion
        AdditionalContactInfo
        Demographics rowguid
        ModifiedDate
    }
    class EmailAddress {
        BusinessEntityID PK_FK1
        AddressID PK
        EmailAddress
    }
    class PersonPhone {
        BusinessEntityID PK_FK1
        PhoneTypeID PK_FK2
        PhoneNumber
        PhoneNumberTypeID
    }
    class BusinessEntityContact {
        BusinessEntityID PK_FK3
        PersonID PK_FK1
        ContactTypeID PK_FK2
        ModifiedDate
    }
    class ContactType {
        ContactTypeID PK
        Name
        ModifiedDate
    }
    class StateProvince {
        StateProvinceID PK
        StateProvinceCode U3
        CountryRegionCode FK1_U3
        IsOnlyStateProvinceFlag U1
        TerritoryID FK2_U2
        rowguid U2
        ModifiedDate U2
    }
    class CountryRegion {
        CountryRegionCode PK
        Name
        ModifiedDate
    }
    class BusinessEntityAddress {
        BusinessEntityID PK_FK3
        AddressID PK_FK2
        AddressTypeID FK1
        ModifiedDate
    }
    BusinessEntity "1" -- "1" Person
    BusinessEntity "1" -- "1" EmailAddress
    BusinessEntity "1" -- "1" PersonPhone
    BusinessEntity "1" -- "1" BusinessEntityContact
    BusinessEntity "1" -- "1" BusinessEntityAddress
    Person "1" -- "1" EmailAddress
    Person "1" -- "1" PersonPhone
    BusinessEntityContact "1" -- "1" ContactType
    StateProvince "1" -- "1" CountryRegion
    BusinessEntityAddress "1" -- "1" Address
  
```

The diagram illustrates the following entities and their attributes:

- BusinessEntity**: BusinessEntityID (PK), Name, rowguid, ModifiedDate.
- Person**: BusinessEntityID (PK_FK1), PersonTypeID (PK_FK2), NameStyle, Title, FirstName, MiddleName, LastName, Suffix, EmailPromotion, AdditionalContactInfo, Demographics (rowguid), ModifiedDate.
- EmailAddress**: BusinessEntityID (PK_FK1), AddressID (PK), EmailAddress.
- PersonPhone**: BusinessEntityID (PK_FK1), PhoneTypeID (PK_FK2), PhoneNumber, PhoneNumberTypeID.
- BusinessEntityContact**: BusinessEntityID (PK_FK3), PersonID (PK_FK1), ContactTypeID (PK_FK2), ModifiedDate.
- ContactType**: ContactTypeID (PK), Name, ModifiedDate.
- StateProvince**: StateProvinceID (PK), StateProvinceCode (U3), CountryRegionCode (FK1_U3), IsOnlyStateProvinceFlag (U1), TerritoryID (FK2_U2), rowguid (U2), ModifiedDate (U2).
- Country/Region**: CountryRegionCode (PK), Name, ModifiedDate.
- BusinessEntityAddress**: BusinessEntityID (PK_FK3), AddressID (PK_FK2), AddressTypeID (FK1), ModifiedDate.

Relationships are indicated by lines with crow's foot notation:

- BusinessEntity** to **Person**: 1:1 relationship.
- BusinessEntity** to **EmailAddress**: 1:1 relationship.
- BusinessEntity** to **PersonPhone**: 1:1 relationship.
- BusinessEntity** to **BusinessEntityContact**: 1:1 relationship.
- BusinessEntity** to **BusinessEntityAddress**: 1:1 relationship.
- Person** to **EmailAddress**: 1:1 relationship.
- Person** to **PersonPhone**: 1:1 relationship.
- BusinessEntityContact** to **ContactType**: 1:1 relationship.
- StateProvince** to **Country/Region**: 1:1 relationship.
- BusinessEntityAddress** to **Address**: 1:1 relationship.

```

    erDiagram
        PurchaseOrderHeader ||--o{ PurchaseOrderDetail : "has"
        PurchaseOrderHeader ||--o{ ShipMethod : "has"
        PurchaseOrderHeader ||--o{ ProductVendor : "has"
        PurchaseOrderHeader ||--o{ AccountNumber : "has"

        PurchaseOrderHeader {
            string PK_PurchaseOrderID PK
            string FK1_ShipMethodID FK1
            string FK4_VendorID FK4
            string RevisionNumber
            string Status
            string OrderDate
            string ShipDate
            float SubTotal
            float TaxAmt
            float Freight
            float TotalDue
            string ModifiedDate
        }

        PurchaseOrderDetail {
            string FK2_PurchaseOrderID FK2
            string FK2_PurchaseOrderDetailID FK2
            string DueDate
            float OrderQty
            string ProductID
            float UnitPrice
            float LineTotal
            float ReceivedQty
            float RejectedQty
            float ShoppedQty
            string ModifiedDate
        }

        ShipMethod {
            string PK_ShipMethodID PK
            string U1_Name U1
            float ShipBase
            float ShipRate
            string rowmod
            string ModifiedDate
        }

        ProductVendor {
            string PK_FK3_ProductID PK_FK3
            string FK1_BusinessEntityID FK1
            float AverageLeadTime
            float StandardPrice
            float LastReceiptCost
            string LastReceiptDate
            float MinOrderQty
            float MaxOrderQty
            string OnOrderQty
            string UnitMeasureCode
            string ModifiedDate
        }

        AccountNumber {
            string U1_AccountNumber U1
            string Name
            string CreditRating
            string PreferredVendorStatus
            string ActiveFlag
            string PurchasingWebServiceURL
            string ModifiedDate
        }
  
```

The diagram illustrates the following relationships:

- PurchaseOrderHeader** (PK: PurchaseOrderID) is the primary table, with foreign keys to **ShipMethod** (FK1: ShipMethodID), **ProductVendor** (FK4: VendorID), and **AccountNumber** (U1: AccountNumber).
- PurchaseOrderDetail** (FK2: PurchaseOrderID, FK2: PurchaseOrderDetailID) is a detail table for **PurchaseOrderHeader**.
- ShipMethod** (PK: ShipMethodID) is a lookup table for **PurchaseOrderHeader**.
- ProductVendor** (PK: ProductID, FK1: BusinessEntityID) is a lookup table for **PurchaseOrderHeader**.
- AccountNumber** (U1: AccountNumber) is a lookup table for **PurchaseOrderHeader**.

The diagram illustrates a comprehensive product management system with the following entities and their attributes:

- ProductListPriceHistory**: ProductID (PK), StartDate (PK), EndDate, ListPrice, ModifiedDate.
- ProductReview**: ProductReviewID (PK), ReviewerName, ReviewDate, EmailAddress, Rating, Comments, ModifiedDate.
- ProductPhoto**: ProductPhotoID (PK), ThumbnailPhotoFileName, LargePhotoFileName, ModifiedDate.
- ProductProductPhoto**: ProductID (PK, FK1), ProductPhotoID (FK2), ModifiedDate.
- ProductModel**: ProductModelID (PK), Name, CatalogDescription, Instructions, rowguid, ModifiedDate.
- ProductSubcategory**: ProductSubcategoryID (PK), Name, rowguid, ModifiedDate.
- ProductCategory**: ProductCategoryID (PK), Name, rowguid, ModifiedDate.
- ProductDescription**: ProductDescriptionID (PK), Description, rowguid, ModifiedDate.
- Culture**: CultureID (PK), Name, ModifiedDate.
- ProductCostHistory**: ProductID (PK, FK1), StartDate (PK), EndDate, StandardCost, ModifiedDate.
- ProductDocument**: ProductID (PK, FK2), DocumentNode (PK, FK1), ModifiedDate.
- TransactionHistory**: TransactionID (PK), ProductID (FK1), ReferenceOrderID, TransactionDate, TransactionType, Quantity, ActualCost, ModifiedDate, ReferenceOrderLineID.
- UnitMeasure**: UnitMeasureCode (PK), Name, ModifiedDate.
- ProductInventory**: ProductID (PK, FK2), LocationID (PK, FK1), Shelf Bin, Quantity, rowguid, ModifiedDate.
- Location**: LocationID (PK), Name, CostRate, Availability, ModifiedDate.
- WorkOrderRouting**: WorkOrderID (PK, FK2), ProductID (PK, FK1), OperationSequence (PK, FK1), LocationID (FK1), ScheduleStartDate, ScheduledEndDate, ActualStartDate, ActualEndDate, ActualResourceID, PlannedCost, ActualCost, ModifiedDate.
- WorkOrder**: WorkOrderID (PK), ProductID (FK1), OrderQty, StockedQty, ScrapedQty, StartDate, EndDate, DueDate, ScrapReasonID (FK2), ModifiedDate.
- ScrapReason**: ScrapReasonID (PK), Name, ModifiedDate.
- TransactionHistoryArchive**: TransactionID (PK), ProductID, ReferenceOrderID, TransactionDate, TransactionType, Quantity, ActualCost, ModifiedDate, ReferenceOrderLineID.

The central **Product** entity (ProductID, Name, ProductNumber, MakeFlag, FinishedGoodsFlag, Color, SafetyStockLevel, StandardCost, ListPrice, Size, SizeUnitMeasureCode, Weight, WeightUnitMeasureCode, DaysToManufacture, ProductLine, Class, Style, ProductSubcategoryID, ProductModelID, SellStartDate, SellEndDate, DiscontinuedDate, rowguid, ModifiedDate) is the core of the system, with relationships to all other entities.