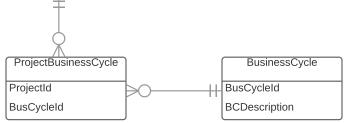
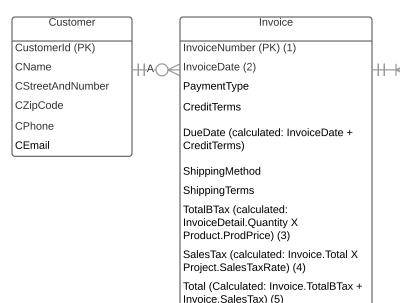
Project ProjectId ProjectName DateRange (default: last calendar year OR input year, quarter, month, specific dates (validation ?) (format? mm/dd/yyyy, ...) WorkingDays (default: weekdays, OR Monday-Saturday OR All week) (Seasonality?) ExportTables (default: joined OR separate) SalesTaxRate (default: random between .05 and .1 OR input (validation >=0 AND <=.2) NumberStyle (default: simple OR complex)





CustomerId (FK)

InvoiceDetail

InvDetailNumber (PK)

Quantity (6)

SubtotalProduct

Product

Product (PK)

Product(PK)

Productld (PK)

Productld (PK)

Productld (PK)

Productld (PK)

Productld (PK)

(calculated:

Χ

(7)

InvoiceDetail.Quantity

Product.ProductPrice)

InvoiceNumber (FK)

ProductId (FK)

SalesSubcycleParameters

NumberOfCustomers (default: random between 1,000 AND 2,000 OR input (validation >=1 AND <=?))

NumberOfInvoices (default: random between NumberOfCustomers AND NumberOfCustomers X 12) OR input (validation >=1 AND <=?))

NumberOfInvoiceDetail (default: random between 1 and NumberOfProducts)

NumberOfProducts (default: random between 5 and 20 OR input (validation >=1 AND <=20)

Anomalies in fields

Input number/percentage

For Customer and Invoice PK:

Missing PK Repeated PK

For other fields with potential anomalies: Missing

- (1) Invoice.InvoiceNumber
- (6) InvoiceDetail.Quantity
 Default: Complies with Benford's law

Benford's law (number of digits 1-3?)

(2) Invoice.InvoiceDate Out of project range Invalid working days

- (3) Invoice.TotalBTax,
- (4) Invoice.SalesTax,
- (5) Invoice. Total,
- (7) InvoiceDetail.SubtotalProduct

Negative number

Anomalies in relationships

Α

Default: Normal distribution of number of invoices (Total?)

Skewed

Invoice

InvoiceNumber (PK) (1) Anomalies: Missing, repeated, Benford, 5 digits (with zeros on the left)
InvoiceDate (2) Out of project range (from Project.DateRange), invalid working days (from

Project.WorkingDays) Default: random (seasonality?)

PaymentType: random "cash" or "credit"

CreditTerms: if each then blank, also DiscountPercentage/Days Discount, not Days Credit, Example

CreditTerms: if cash then blank, else DiscountPercentage/DaysDiscount, net DaysCredit. Example: "2/10, net 30". DiscountPercentage: random integer number between 2 and 5, DaysDiscount: 10 or 15, DaysCredit (30 or 60).

DueDate (calculated: InvoiceDate + DaysCredit)

ShippingMethod (random "Standard", "Expedited")

ShippingTerms (random "FOB destination", "FOB shipping")

TotalBTax (calculated: InvoiceDetail.Quantity X Product.ProdPrice) (3) Negative number, incorrect calculation

SalesTax (calculated: Invoice.Total X Project.SalesTaxRate) (4) Negative number, incorrect calculation

Total (Calculated: Invoice TotalRTax + Invoice SalesTax) (5) Negative number, incorrect calculation

Total (Calculated: Invoice.TotalBTax + Invoice.SalesTax) (5) Negative number, incorrect calculation

CustomerId (FK)

ustomena (FK)

InvoiceDetail

InvDetailNumber (PK)

Quantity Default: Benform (6) Anomalies: Benford,

SubtotalProduct (calculated: InvoiceDetail.Quantity X Product.ProductPrice) (7) Negative number, incorrect calculation

InvoiceNumber (FK)

ProductId (FK)

