CSCI3287 Database Information
Spring 2018
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HW1
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ProductSalesReport (ProductNumber, Description, InvoiceNumber, InvoiceDate, CustomerNumber, CustomerName, QuantityOrdered, OrderTotalPrice)

First Normal Form - (Put repeating attributes in to a new relation)
ProductSalesReport (ProductNumber, Description, CustomerName, CustomerNumber, CustomerName, OrderTotalPrice)

ProductOrder (ProductNumber, InvoiceNumber, Quantity, InvoiceDate)

Second Normal Form - (Every non-key attribute is functionally dependent on the primary key)
ProductSalesReport (InvoiceNumber, InvoiceDate, CustomerName, CustomerNumber, CustomerName, OrderTotalPrice)

ProductOrder (ProductNumber, InvoiceNumber, Quantity, Price)

Product (ProductNumber, Description)

Third Normal Form - (No non-key attributes are dependent on any other non-key attributes)

ProductSalesReport (ProductNumber, Description)

Customer (InvoiceNumber, InvoiceDate, CustomerName, CustomerNumber)

ProductOrder (InvoiceNumber, ProductNumber, QuantityOrdered, Price)

Product (ProductNumber)

Unnormalized Section

==CustomerInvoice== (<u>InvoiceNumber</u>, CustomerNumber, CustomerName, CustomerAddress, InvoiceDate, ProductNumber, ProductDescription, StansardPrice, DiscountCode, DiscountPrice, ProductQuantity, ProductTotalPrice, InvoiceTotalPrice)

First Normal Form - (Put repeating attributes in to a new relation)
==CustomerInvoice== (<u>InvoiceNumber</u>, InvoiceDate, CustomerNumber, CustomerName, CustomerAddress, DiscountCode, DiscountPrice, ProductTotalPrice)

==ProductOrder== (<u>ProductNumber, InvoiceNumber</u>, ProductDescription, StandardPrice, Quantity, InoviceTotalPrice)

Second Normal Form - (Every non-key attribute is functionally dependent on the primary key)

==CustomerInvoice== (<u>InvoiceNumber</u>, InvoiceDate, CustomerNumber, CustomerName, CustomerAddress, DiscountCode, DiscountPrice, InvoiceTotalPrice)

==ProductOrder== (<u>InvoiceNumber, ProductNumber</u>, Quantity, ProductTotalPrice)

==Product== (<u>ProductNumber</u>, StandardPrice, ProductDescription)

Third Normal Form - (No non-key attributes are dependent on any other non-key attributes)

==CustomerInvoice== (<u>InvoiceNumber</u>, InvoiceDate, DiscountCode, DiscountPrice, InvoiceTotalPrice)

==Customer== (<u>CustomerNumber</u>, CustomerName, CustomerAddress)

==ProductOrder== (<u>InvoiceNumber, ProductNumber</u>, ProductQuantity, ProductTotalPrice)

==Product== (<u>ProductNumber</u>, ProductDescription, StandardPrice)

Unnormalized Section

SalesTerritory (<u>CustomerNumber</u>, OrdersYrs2Date, AccountBalance, OrdersValue)

First Normal Form - (Put repeating attributes in to a new relation)

SalesTerritory (<u>SalesTerritoryAndNumber</u>, OrdersYTD)

ProductSales (<u>CustomerNumber</u>, OrdersYrs2Date, AccountBalance, OrdersValue)

Second Normal Form

SalesTerritory (<u>SalesTerritoryAndNumber</u>, OrdersValue)

ProductSales (<u>CustomerNumber</u>, TerritoryNumber, OrdersYrs2Date, AccountBalance, OrdersValue)

Customer (<u>CustomerNumber</u>, OrdersYTD, AccountBalance)

Third Normal Form

SalesTerritory (<u>SalesTerritoryAndNumber</u>, OrdersValue)

ProductSales (<u>CustomerNumber</u>, TerritoryNumber, OrdersYrs2Date, AccountBalance, OrdersValue)

Customer (<u>CustomerNumber</u>, OrdersYTD, AccountBalance)

ProductOrders (<u>CustomerNumber</u>, OrdersYTD, AccountBalance, OrdersValue)

This data entry screen shows all attributes that are funtional dependent on **Customer-Number** as primary key, so First, Second, Third normal form are the same.

Unnormalized Section

CustomerEntry (CustomerNumber SalesTerritory, Depot, CustomerName, Address, TradeClass, Substitute, DiscountCode, CreditLimit, DeliveryInstructions)

First Normal Form - (Put repeating attributes in to a new relation)

CustomerEntry (CustomerNumber SalesTerritory, Depot, CustomerName, Address, TradeClass, Substitute, DiscountCode, CreditLimit, DeliveryInstructions)

Second Normal Form

CustomerEntry (CustomerNumber SalesTerritory, Depot, CustomerName, Address, TradeClass, Substitute, DiscountCode, CreditLimit, DeliveryInstructions)

Third Normal Form

CustomerEntry (CustomerNumber SalesTerritory, Depot, CustomerName, Address, TradeClass, Substitute, DiscountCode, CreditLimit, DeliveryInstructions)

Unnormalized Section

==ProductWarehouseStockReport== (<u>ProductNumber</u>, DepotCode, StockQuantity, LocationCode, Yrs2DateOrders, ProductTotals)

First Normal Form - (Put repeating attributes in to a new relation)

==ProductData== (<u>ProductNumber</u>, LocationCode, YTDOrders)

==DepotProductData== (<u>ProductNumber, DepotCode</u>, Totals)

Second Normal Form

==ProductData== (<u>ProductNumber</u>, LocationCode, YTDOrders)

==DepotProductData== (<u>ProductNumber, DepotCode</u>, Totals)

Third Normal Form

==ProductData== (<u>ProductNumber</u>, LocationCode, YTDOrders)

==DepotProductData== (<u>ProductNumber, DepotCode</u>, Totals)

This data entry screen shows all attributes that are functional dependent on **Product-Number** as primary key, so First Second, Third normal form are the same

Unnormalized Section

ProductEntry (ProductNumber, ProductWeight, PackUnit, ProductClass, Product-Description, ProductDiscountPricesType, InventoryCode, ProductStandardPrice)

First Normal Form - (Put repeating attributes in to a new relation)

ProductEntry (ProductNumber, ProductWeight, PackUnit, ProductClass, Product-Description, ProductDiscountPricesType, InventoryCode, ProductStandardPrice)

Second Normal Form

ProductEntry (ProductNumber, ProductWeight, PackUnit, ProductClass, Product-Description, ProductDiscountPricesType, InventoryCode, ProductStandardPrice)

Third Normal Form

ProductEntry (ProductNumber, ProductWeight, PackUnit, ProductClass, Product-Description, ProductDiscountPricesType, InventoryCode, ProductStandardPrice)

Unnormalized Section

Product (ProductNumber, CustomerNumber, ProductSalesReport, CustomerInvoice, SalesTerriroty, CustomerEntry, ProductWarehouseStockReport, ProductEntry, InvoiceNumber, InvoiceDate, CustomerName, Quantity, TotalPrice, ProductDescription, CustomerAddress, StandardPrice, DiscountCode, DiscountPrice, InvoiceTotal, AccountBalance, OrderValue, Depot, TradeClass, Substitute, CreditLimit, DelivertyInstructions, DepotCode, StockQuantity, LocationCode, YTDOrders, Weight, PackUnit, ProductClass, InventoryCode)

Third Normal Form

Product (ProductNumber, StandardPrice, DiscountPrice, Weight, PackUnit, ProductClass, Description)

Customer (CustomerNumber, CustomerName, CustomerAddress, ZipCode, AccountBalance, Subtitute, CreditLimit, DeliveryInstructions, TradeClass)

Invoice (InvoiceNumber, InvoiceDate, Quantity, TotalPrice, ProductDescription, CustomerAddress, InvoiceTotal, OrdersValue)

DepotProduct (DepotCode, ProductNumber, StockQuantity, LocationCode, InventoryCode, Depot)

InvoiceDetail (InvoiceNumber, ProductNumber, ProductAmount, DiscountCode)

CustomerSales (SalesTerritory, CustomerNumber, AccountBalance, OrdersYTD, TradeClass)