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**Table and Attribute Summaries(Version 3)**

The purpose is to create tables for all entities and relationships and detail the attributes.

Based on Conceptual Schema(Version 4)

Changes: Edited the For relationship into the ForPart relationship. Added the Assembly Card entity, the Creates relationship, two ForPart attributes, and the OrderTotal Order attribute. Removed the Exact Date attribute from Order and added it to AssemblyCard.

**Part**

Table

|  |  |
| --- | --- |
| Table | Part |
| ER Origin | Part Entity |
| Primary Key | PartID |
| Foreign Keys |  |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| PartID | INTEGER |  |  | Required | Stored |
| Name | VARCHAR(30) |  |  | Required | Stored |
| Unit Cost | FLOAT(12,2) |  | >0.00 | Required | Stored |

**Technician**

Table

|  |  |
| --- | --- |
| Table | Technician |
| ER Origin | Technician Entity |
| Primary Key | TechnicianID |
| Foreign Keys |  |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| TechnicianID | INTEGER |  |  | Required | Stored |
| Name | VARCHAR(30) |  |  | Required | Stored |
| Street | VARCHAR(30) |  |  | Optional | Stored |
| City | VARCHAR(20) |  |  | Optional | Stored |
| State | CHAR(2) |  |  | Optional | Stored |
| Zip | VARCHAR(10) |  |  | Optional | Stored |

**Order**

Table

|  |  |
| --- | --- |
| Table | Order |
| ER Origin | Order Associative Entity |
| Primary Key | OrderID |
| Foreign Keys | CustomerID references Customer |
|  | PartID references Part |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| OrderID | INTEGER |  |  | Required | Stored |
| CustomerID | INTEGER |  |  | Required | Stored |
| PartID | INTEGER |  |  | Required | Stored |
| OrderTotal | INTEGER |  | >=0 | Required | Derived |

**Assembly Card**

Table

|  |  |
| --- | --- |
| Table | Assembly Card |
| ER Origin | Assembly Card Entity |
| Primary Key | Card Number |
| Foreign Keys | OrderID references Order |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| Card Number | INTEGER |  |  | Required | Stored |
| OrderID | INTEGER |  |  | Required | Stored |
| Exact Date | DATE |  |  | Optional | Stored |

**Customer**

Table

|  |  |
| --- | --- |
| Table | Customer |
| ER Origin | Customer Entity |
| Primary Key | CustomerID |
| Foreign Keys |  |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| CustomerID | INTEGER |  |  | Required | Stored |
| Name | VARCHAR (30) |  |  | Required | Stored |
| Street | VARCHAR(30) |  |  | Required | Stored |
| City | VARCHAR(20) |  |  | Required | Stored |
| State | CHAR(2) |  |  | Required | Stored |
| Zip | VARCHAR(10) |  |  | Required | Stored |

**Supplier**

Table

|  |  |
| --- | --- |
| Table | Supplier |
| ER Origin | Supplier Entity |
| Primary Key | SupplierID |
| Foreign Keys |  |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| SupplierID | INTEGER |  |  | Required | Stored |
| Name | VARCHAR(30) |  |  | Required | Stored |
| Street | VARCHAR(30) |  |  | Required | Stored |
| City | VARCHAR(20) |  |  | Required | Stored |
| State | CHAR(2) |  |  | Required | Stored |
| Zip | VARCHAR(10) |  |  | Required | Stored |

**Supply Shipment**

Table

|  |  |
| --- | --- |
| Table | Supply Shipment |
| ER Origin | Supply Shipment Associate Entity |
| Primary Key | SupplyID |
| Foreign Keys | SupplierID references Supplier |
|  | PartID references Part |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| SupplyID | INTEGER |  |  | Required | Stored |
| Quantity | INTEGER |  |  | Required | Stored |
| SupplierID | INTEGER |  |  | Required | Stored |
| PartID | INTEGER |  |  | Required | Stored |

**Assembles**

Table

|  |  |
| --- | --- |
| Table | Assembles |
| ER Origin | Assembles Relationship |
| Primary Key | TechnicianID, PartID |
| Foreign Keys | TechnicianID references Technician |
|  | PartID references Part |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| TechnicianID | INTEGER |  |  | Required | Stored |
| PartID | INTEGER |  |  | Required | Stored |

**Ships**

Table

|  |  |
| --- | --- |
| Table | Ships |
| ER Origin | Ships Relationship |
| Primary Key | SupplierID, SupplyID |
| Foreign Keys | SupplierID references Supplier |
|  | SupplyID references Supply Shipment |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| SupplierID | INTEGER |  |  | Required | Stored |
| SupplyID | INTEGER |  |  | Required | Stored |

**Contains**

Table

|  |  |
| --- | --- |
| Table | Contains |
| ER Origin | Contains Relationship |
| Primary Key | PartID, SupplyID |
| Foreign Keys | PartID references Part |
|  | SupplyID references Supply Shipment |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| PartID | INTEGER |  |  | Required | Stored |
| SupplyID | INTEGER |  |  | Required | Stored |

**BOM**

Table

|  |  |
| --- | --- |
| Table | BOM |
| ER Origin | BOM Relationship |
| Primary Key | CompositePart, ComponentPart |
| Foreign Keys | CompositePart references Part |
|  | ComponentPart references Part |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| CompositePart | INTEGER |  |  | Optional | Stored |
| ComponentPart | INTEGER |  |  | Optional | Stored |

**Uses**

Table

|  |  |
| --- | --- |
| Table | Uses |
| ER Origin | Uses Relationship |
| Primary Key | TechnicianID, OrderID |
| Foreign Keys | Card Number references Assembly Card |
|  | OrderID references Order |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| Card Number | INTEGER |  |  | Required | Stored |
| OrderID | INTEGER |  |  | Required | Stored |

**ForPart**

Table

|  |  |
| --- | --- |
| Table | For |
| ER Origin | For Relationship |
| Primary Key | PartID, OrderID |
| Foreign Keys | PartID references Part |
|  | OrderID references Order |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| PartID | INTEGER |  |  | Required | Stored |
| OrderID | INTEGER |  |  | Required | Stored |
| Quantity | INTEGER |  | >=0 | Required | Stored |
| LineTotal | INTEGER |  | >=0 | Required | Derived |

**Places**

Table

|  |  |
| --- | --- |
| Table | Places |
| ER Origin | Places Relationship |
| Primary Key | CustomerID, OrderID |
| Foreign Keys | CustomerID references Customer |
|  | OrderID references Order |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| CustomerID | INTEGER |  |  | Required | Stored |
| OrderID | INTEGER |  |  | Required | Stored |

**Creates**

Table

|  |  |
| --- | --- |
| Table | Creates |
| ER Origin | Creates Relationship |
| Primary Key | OrderID, Card Number |
| Foreign Keys | OrderID references Order |
|  | Card Number references Assembly Card |

Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Default Value | Range | Req/Opt | Derived/Stored |
| OrderID | INTEGER |  |  | Required | Stored |
| Card Number | INTEGER |  |  | Required | Stored |