DDL Exercise: Build Tables with Constraints

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**Requirements**:

1. Check for Service Description/Title

2. Calc column for Age

**Questions**

1. Data Dictionary

2. Database Diagram

3. Screen Capture of expanded Service Table and Dog Table to display calc column and check

4. MDF and LDF files.

**Question1: Data Dictionary**

Table\_name:Customer

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Cust\_ID | PK so Unique | int | 25 | Y | Y |  |  |  |  | Y |
| First\_Name | Customer name | varchar | 25 |  |  |  |  |  |  |  |
| Last\_Name | Customer name | varchar | 25 |  |  |  |  |  |  |  |
| Street | Address details of customer | varchar | 15 |  |  |  |  |  |  |  |
| City | City of customer | varchar | 15 |  |  |  |  |  |  |  |
| State | State in which customer lives | varchar | 15 |  |  |  |  |  |  |  |
| Phone | Phone no of customer | varchar | 15 |  |  |  |  |  |  |  |
| Email | Email address of customer | varchar | 15 |  |  |  |  |  |  |  |

Table\_name:Dog

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Check | Computation expression | Allow nulls | Index |
| Dog\_ID | PK so Unique | int |  | Y | Y |  |  |  | Y |
| Dog\_name | Dog’s name | varchar | 15 |  |  |  |  |  |  |
| Breed | Dog’s name | varchar | 15 |  |  |  |  |  |  |
| Temper | Dog’s temper level | varchar | 15 |  |  |  |  |  |  |
| DOB | Date of Birth of dog | date |  |  |  |  |  |  |  |
| Age | Age of Dog | int |  |  |  |  | (datediff(year,[DOB],getdate())) |  |  |
| Cust\_ID | Customer\_ID of dog’s owner(Foreign key i.e., refers to Cust\_ID in customer table) | Int |  |  |  |  |  |  |  |

Table\_name:Employee

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Employee\_ID | PK so Unique | int |  | Y | Y |  |  |  |  | Y |
| First\_Name | Employee name | varchar | 50 |  |  |  |  |  |  |  |
| Last\_Name | Employee name | varchar | 50 |  |  |  |  |  |  |  |
| Street | Address details of Employee | varchar | 60 |  |  |  |  |  |  |  |
| City | City of Employee | varchar | 20 |  |  |  |  |  |  |  |
| State | State in which Employee lives | varchar | 15 |  |  |  |  |  |  |  |
| Zip | Zip code of Employee | Numeric | 5,0 |  |  |  |  |  |  |  |
| Phone | Phone no of Employee | Numeric | 10,0 |  |  |  |  |  |  |  |
| Email | Email address of Employee | varchar | 15 |  |  |  |  |  |  |  |

Table\_name:FamilyMember

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Cust\_ID | PK so Unique(Foreign key i.e., refers to Cust\_ID in customer table) | int |  | Y | Y |  |  |  |  | Y |
| Fam\_ID | ID associated with family member registration | int |  |  |  |  |  |  |  |  |
| Name | Family member’s name | varchar | 20 |  |  |  |  |  |  |  |

Table\_name:Order

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Order\_No | PK so Unique(Order ID) | int |  | Y | Y |  |  |  |  | Y |
| DateOrdered | Order date | date |  |  |  |  |  |  |  |  |
| DateArrived | Date of arrival | date |  |  |  |  |  |  |  |  |
| Quantity | Number of items ordered | numeric | 5,0 |  |  |  |  |  |  |  |
| Supplier\_ID | Supplier of a particular order  (Foreign key that refers to the supplier\_ID in supplier ID) | int |  |  |  |  |  |  |  |  |
| Product\_ID | Product ordered  (Foreign key that refers to product\_ID in in product table) | int |  |  |  |  |  |  |  |  |

Table\_name:Preferred\_Service

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Dog\_ID | CPK (Dog\_ID and DateOrdered together uniquely identifies each row)Also foreign key as it refers to Dog\_ID in Dog table) | int |  |  |  |  |  |  |  | Y |
| DateOrdered | CPK (Dog\_ID and DateOrdered together uniquely identifies Preferred  \_Service) | date |  |  |  |  |  |  |  | Y |

Table\_name:Product

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Product\_ID | PK so Unique(Product ID) | int |  | Y | Y |  |  |  |  | Y |
| Name | Name of the product | varchar |  |  |  |  |  |  |  |  |
| Description | Product Description | varchar |  |  |  |  |  |  |  |  |
| UnitOnHand | Number of Units available | numeric | 5,0 |  |  |  |  |  |  |  |
| CostPerUnit | Cost per single unit of product | numeric | 10,0 |  |  |  |  |  |  |  |

Table\_name:Service

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Check | Index |
| Service\_ID | PK so Unique(Service ID)(Also Foreign key as it refers to Dog\_ID in Dog table) | int |  | Y | Y |  | Y |
| Description | Description of service | varchar | 50 |  |  | ([Description]='flea\_treatments' OR [Description]='nailpainting' OR [Description]='nail\_trimming' OR [Description]='hairstyles' OR [Description]='haircuts' OR [Description]='washes') |  |
| Price | Price of a particular service | numeric | 18,2 |  |  |  |  |

Table\_name:Service\_provided

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Transaction\_ID | PK so Unique(Order ID) | int |  | Y | Y |  |  |  |  | Y |
| Date | Date on which service was provided | datetime |  |  |  |  |  |  |  |  |
| Dog\_ID | ID of dog which receives service(Foreign key which refers to Dog ID in dog table) | Int |  |  |  |  |  |  |  |  |
| Employee\_ID | ID of Employee who provided service(Foreign key which refers to Employee \_ID in Employee table | int |  |  |  |  |  |  |  |  |
| Service\_ID | Service provided to dog(Foreign key that refers to service\_ID in service table) | int |  |  |  |  |  |  |  |  |

Table\_name:Supplier

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Supplier\_ID | PK as it uniquely identifies each row | int |  | Y | Y |  |  |  |  | Y |
| Name | Name of supplier | varchar | 20 |  |  |  |  |  |  |  |
| Sreet | Address details of supplier | varchar | 20 |  |  |  |  |  |  |  |
| City | City where supplier exists | varchar | 15 |  |  |  |  |  |  |  |
| State | State of supplier | varchar | 10 |  |  |  |  |  |  |  |
| Zip | Zip code | numeric | 5,0 |  |  |  |  |  |  |  |
| Phone\_no | Phone\_no of supplier | numeric | 10,0 |  |  |  |  |  |  |  |

**Question2:Database Diagram**

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**Question1:Screen Capture of expanded Service Table and Dog Table to display calc column and check**

Graphical user interface, application

Description automatically generated



A screenshot of a computer

Description automatically generated with medium confidence

