

# Data Modeling Project 1

Maheen Naqvi

# Strategy for Domains- User Defined Datatypes

Sets the template for attributes that apply to more than one attribute

Usage of SQL-92 standard domain concepts

Concept of physical ownership was used

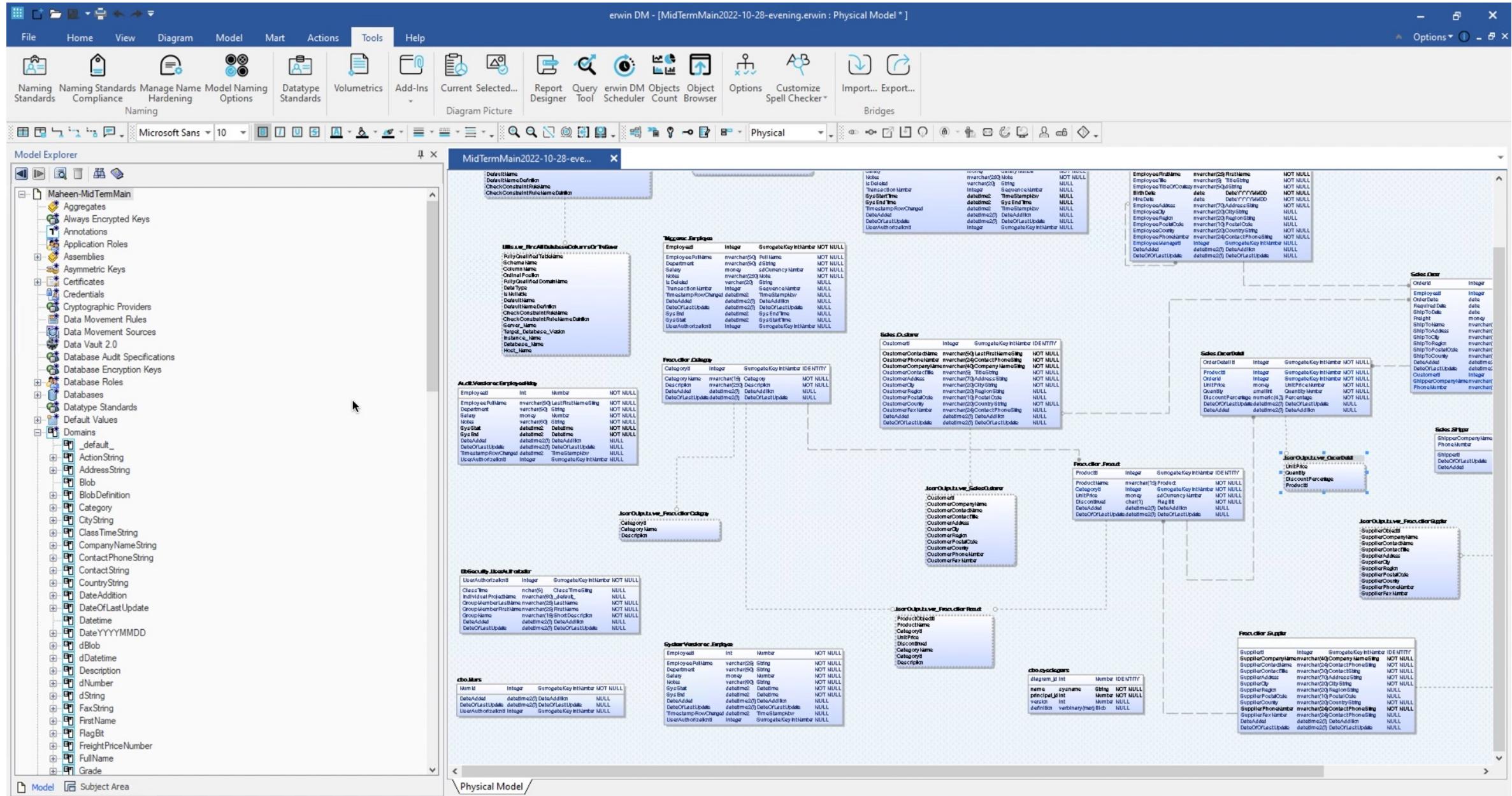
Mapping the unique subdomains to Schema names

Columns based upon the fully qualified UDTs

Physical Name	Domain Parent	Physical Data Type
?_default_	?_default_	char(18)
Blob	?_default_	varbinary
Datetime	?_default_	datetime
Number	?_default_	integer
String	?_default_	varchar(20)

Options

Row GUID	
Sparse	<input type="checkbox"/>
Schema	dString



# Strategy for Relationships

- Foreign Key relationships were recreated
- Demonstration of different cardinalities
- Establishment of Identifying and Non-Identifying relationships

Foreign Key Constraint Name	Parent	Child	Disabled	With Check	Is Not For Replication	Physical Only	Generate
FK_Employees_Employees	Employee	Employee	False	True			<input checked="" type="checkbox"/>
FK_Order_Customer	Customer	Order	False	True			<input checked="" type="checkbox"/>
FK_Order_Employee	Employee	Order	False	True			<input checked="" type="checkbox"/>
FK_Order_Shipper	Shipper	Order	False	True			<input checked="" type="checkbox"/>
FK_OrderDetail_Order	Order	OrderDetail	False	True	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FK_OrderDetail_Product	Product	OrderDetail	False	True			<input checked="" type="checkbox"/>
FK_Product_Category	Category	Product	False	True			<input checked="" type="checkbox"/>
FK_Product_Supplier	Supplier	Product	False	True			<input checked="" type="checkbox"/>
FK_uvw_OrderDetail_OrderDetail	OrderDetail	uvw_OrderDetail					<input checked="" type="checkbox"/>
FK_uvw_ProductionCategory_Category	Category	uvw_ProductionCategory					<input checked="" type="checkbox"/>
FK_uvw_ProductionProduct_Category	Category	uvw_ProductionProduct					<input checked="" type="checkbox"/>
FK_uvw_ProductionProduct_Product	Product	uvw_ProductionProduct					<input checked="" type="checkbox"/>
FK_uvw_ProductionSupplier_Supplier	Supplier	uvw_ProductionSupplier					<input checked="" type="checkbox"/>
FK_uvw_SalesCustomer_Customer	Customer	uvw_SalesCustomer					<input checked="" type="checkbox"/>
FK_uvw_SalesShipper_Shipper	Shipper	uvw_SalesShipper					<input checked="" type="checkbox"/>
FK_uw_FindAllDatabaseColumnsOnTheServer_uvw_FindColumnDefinitionPlus...	uvw_FindColumnDefinitionPlus...	uvw_FindAllDatabaseColumnsOnTh...					<input checked="" type="checkbox"/>

.....

General Comment Role Name RI Actions Trigger Template Style UDP Notes Extended Notes

'FK\_OrderDetail\_Order' Type Properties

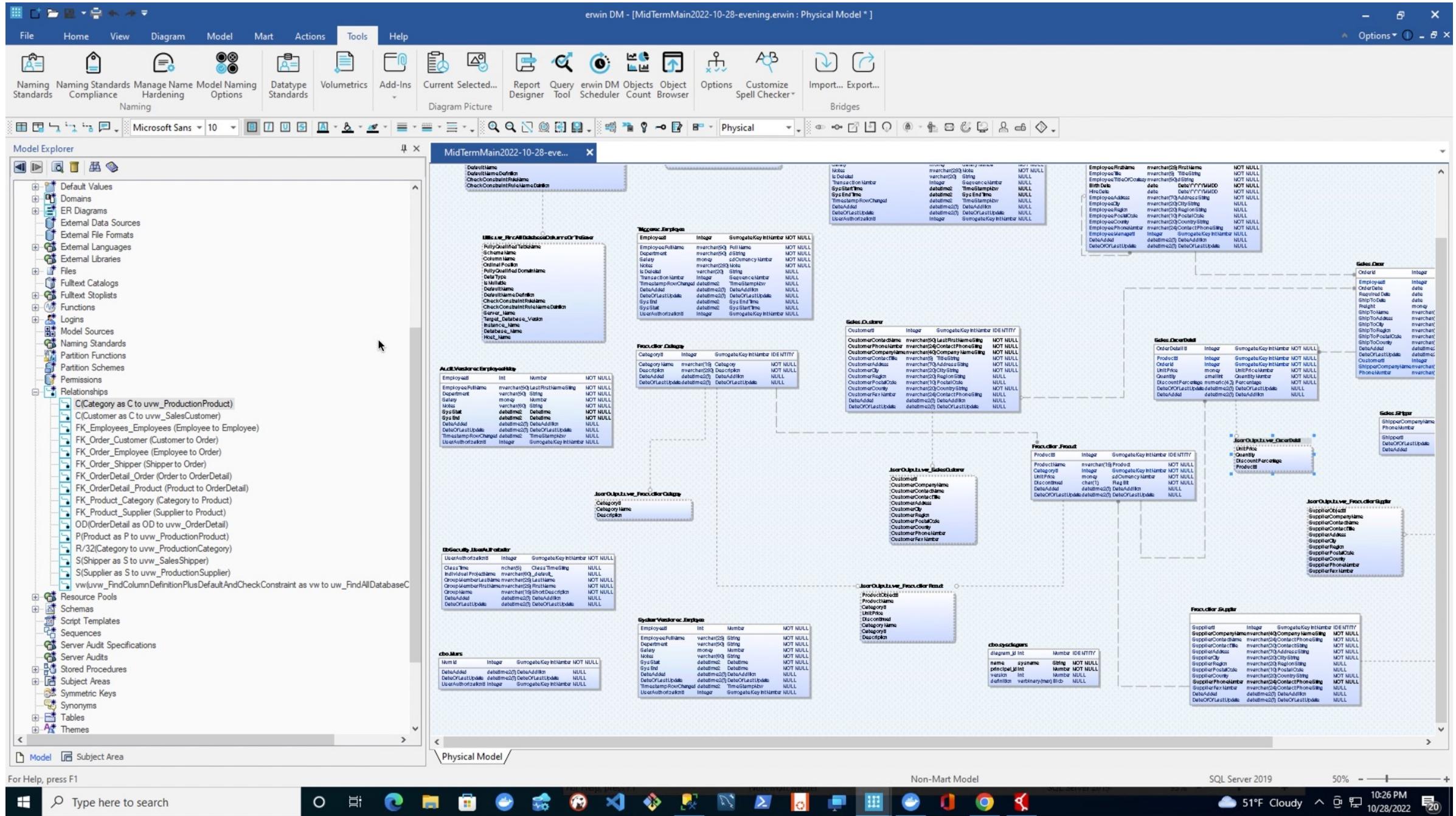
Type	Non-Identifying
Null Option	Nulls Not Allowed

'FK\_OrderDetail\_Order' Relationship Properties

Physical Name	FK_OrderDetail_Order
---------------	----------------------

'FK\_OrderDetail\_Order' Cardinality Properties

Cardinality	Zero, One or More
Cardinality Value	



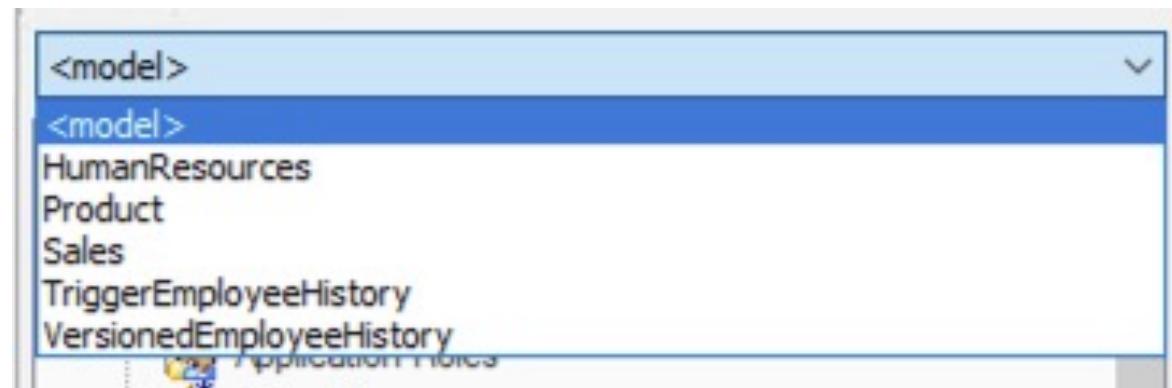
# Strategy for Subject Areas

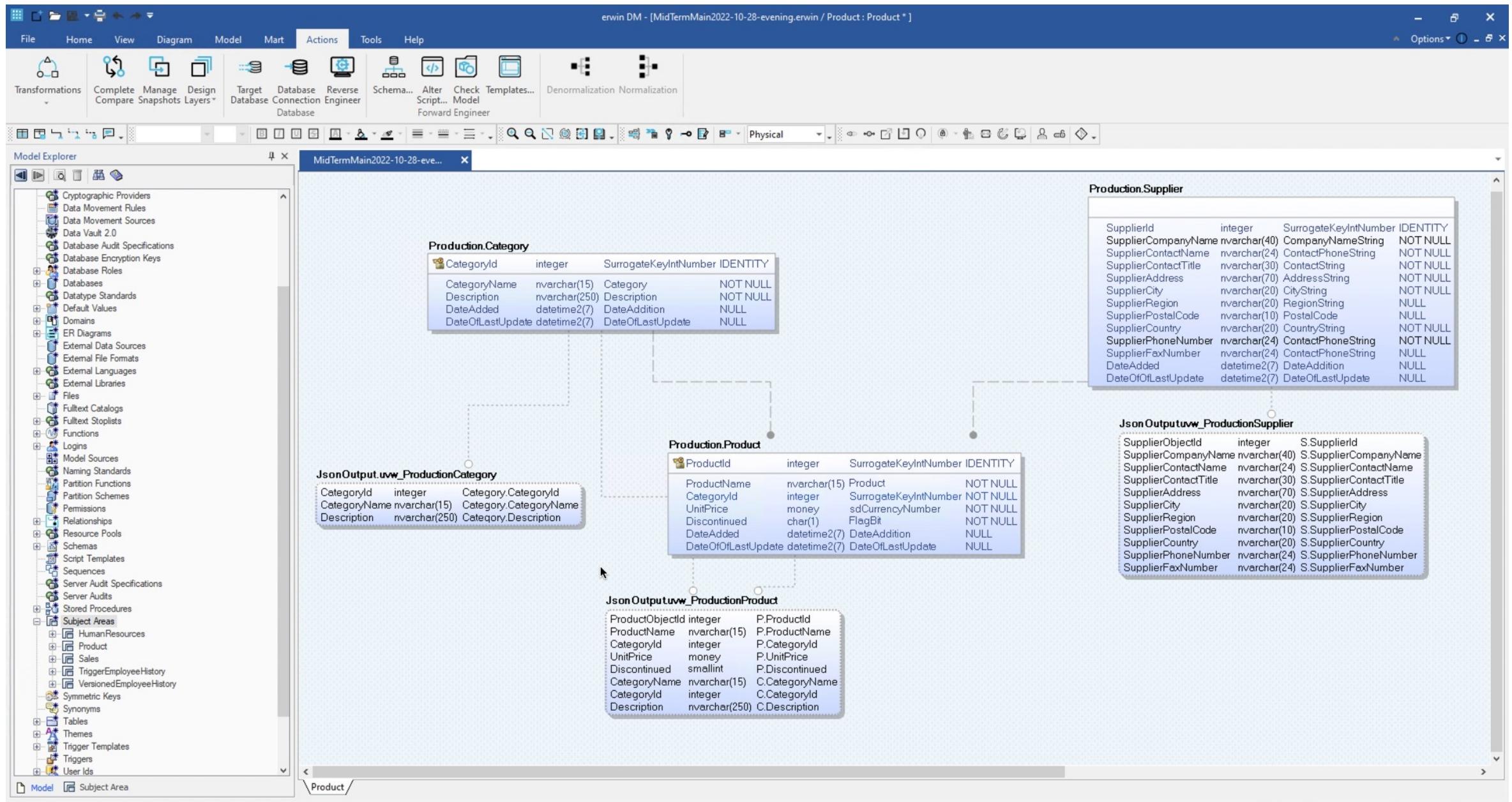
Divide the model to five subject areas:

- Human Resources
- Product
- Sales
- TriggeredEmployeeHistory
- VersionedEmployeeHistory

Purpose is to use the large data model to reduce the number of objects to focus on particular business area

Application of ER Diagrams under the Subject Area

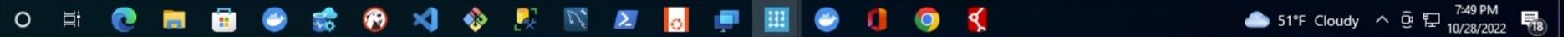




For Help, press F1



Type here to search



# Strategy for Validations



Purpose is that an attribute must never contain a value outside of its assigned validation rule



Strategy was to define the list of values or a range of values.



Demonstration of how to create and test business rules to validate data entered by users in form fields

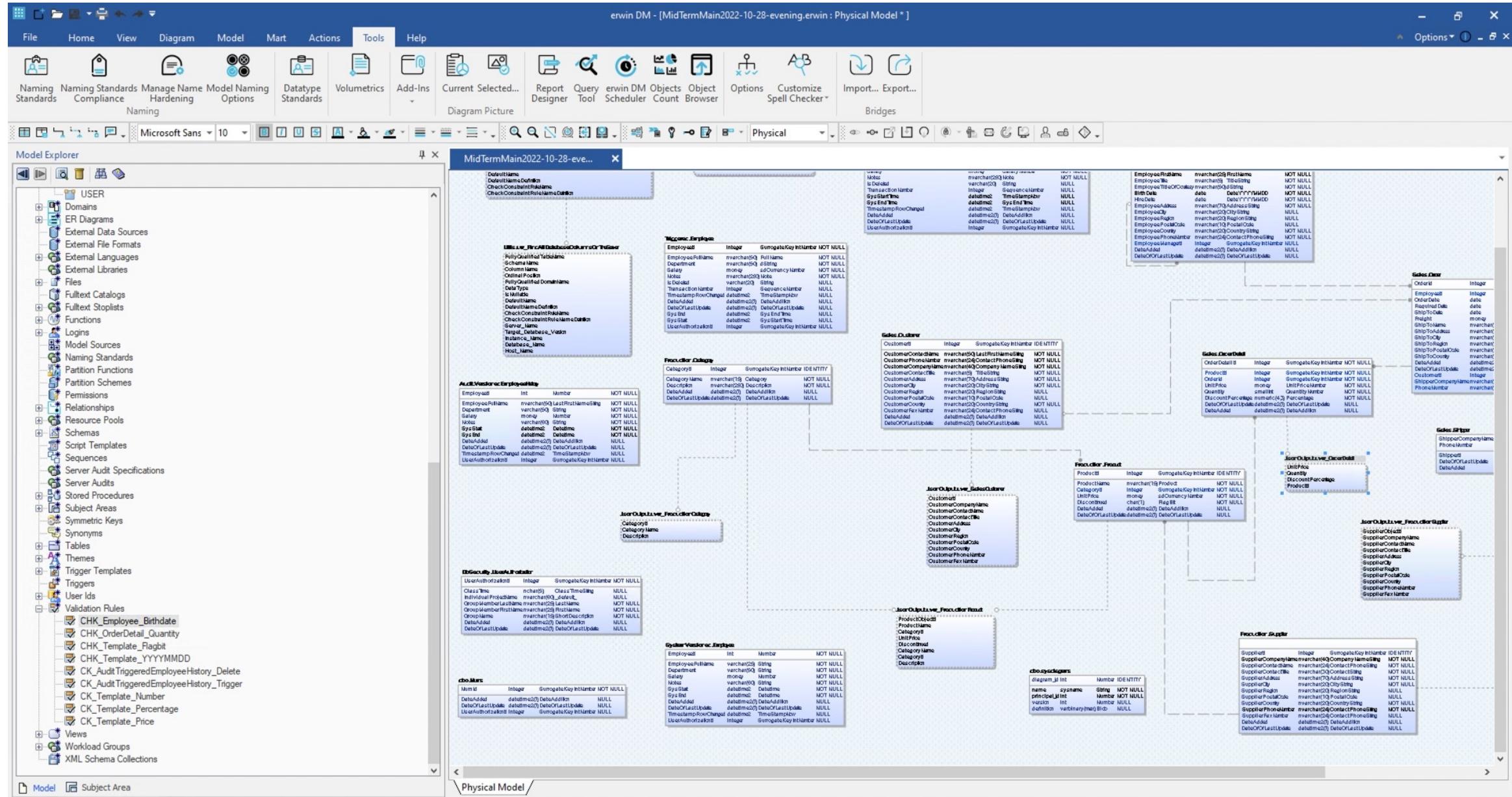
Physical Name	Type	Generate Using Bind	Physical Only
CK_Employee_Birthdate	User-Defined	<input type="checkbox"/>	<input type="checkbox"/>
CK_Template_YYYYMMDD	User-Defined	<input type="checkbox"/>	<input type="checkbox"/>
CK_AuditTriggeredEmployeeHistory_Delete	Valid Values	<input type="checkbox"/>	<input type="checkbox"/>
CK_AuditTriggeredEmployeeHistory_Trigger	Valid Values	<input type="checkbox"/>	<input type="checkbox"/>
CK_Template_Number	MinMax	<input type="checkbox"/>	<input type="checkbox"/>
CK_Template_Flagbit	Valid Values	<input type="checkbox"/>	<input type="checkbox"/>
CK_OrderDetail_Quantity	MinMax	<input type="checkbox"/>	<input type="checkbox"/>
CK_Template_Price	MinMax	<input type="checkbox"/>	<input type="checkbox"/>
CK_Template_Percentage	MinMax	<input type="checkbox"/>	<input type="checkbox"/>

'CK\_AuditTriggeredEmployeeHistory\_Trigger' Valid Values

Valid Value	Display Value	Definition
U	update	update
D	delete	delete
I	insert	insert

'CK\_AuditTriggeredEmployeeHistory\_Trigger' Expression

```
[%AttFieldName]='U' OR [%AttFieldName]='D' OR [%AttFieldName]='I'
```



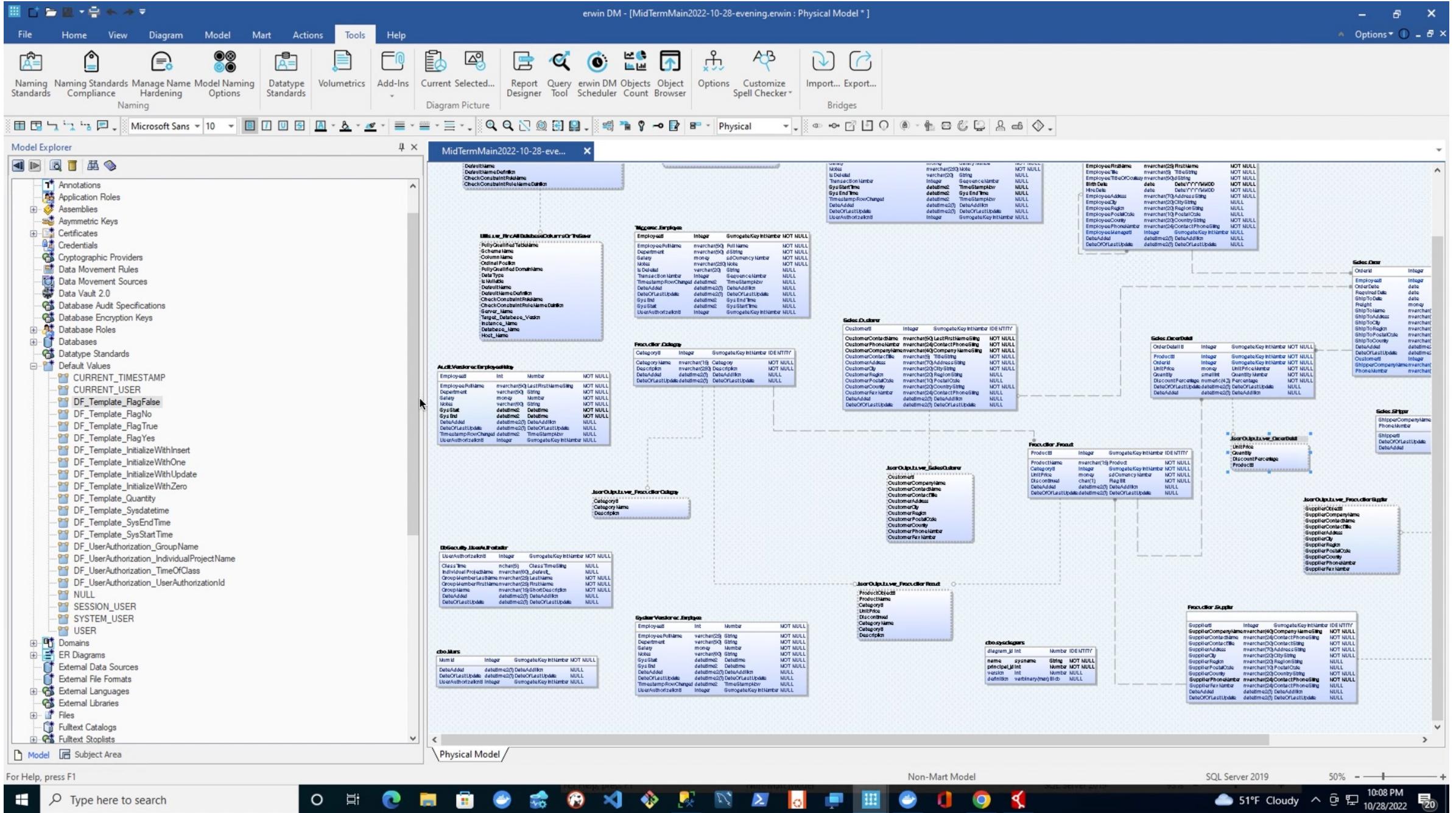
# Strategy for Default Values

- Instructions on what to do attributes contain NO Values
- Default Values were created based on the validation rules.
- Created at the attribute level.
- For instance, default value for ‘GroupName’ for my project was Group 1.

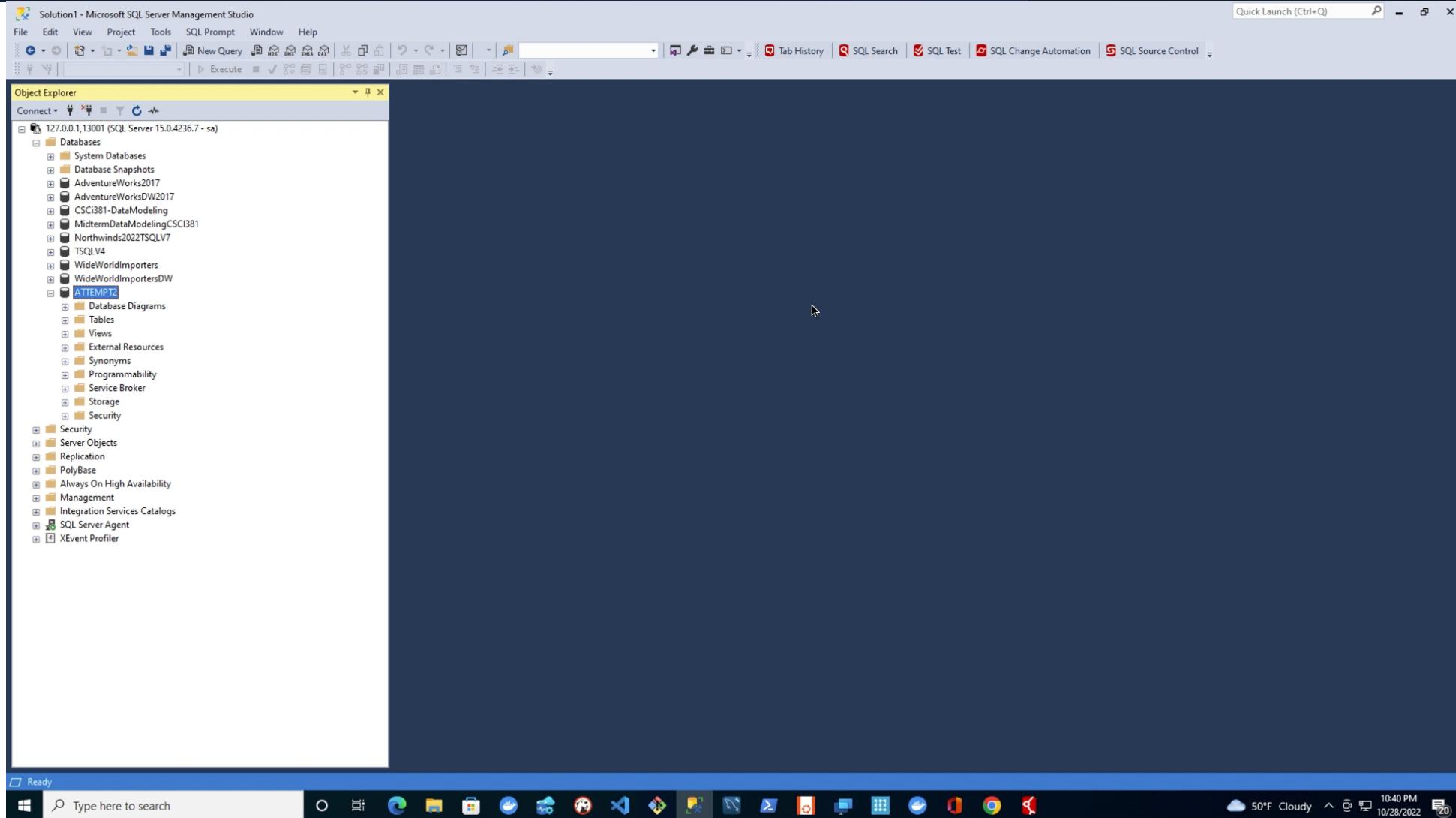
Physical Name	Physical Only
DF_Template_Quantity	<input type="checkbox"/>
DF_UserAuthorization_UserAuthorizationId	<input type="checkbox"/>
DF_Template_FlagFalse	<input type="checkbox"/>
DF_Template_FlagTrue	<input type="checkbox"/>
DF_Template_FlagYes	<input checked="" type="checkbox"/>
DF_Template_FlagNo	<input type="checkbox"/>
DF_Template_InitializeWithInsert	<input type="checkbox"/>
DF_Template_InitializeWithOne	<input type="checkbox"/>
DF_Template_InitializeWithUpdate	<input type="checkbox"/>
DF_Template_InitializeWithZero	<input type="checkbox"/>
DF_Template_Sysdatetime	<input type="checkbox"/>
DF_Template_SysStartTime	<input type="checkbox"/>
DF_Template_SysEndTime	<input type="checkbox"/>
DF_UserAuthorization_TimeOfClass	<input type="checkbox"/>
DF_UserAuthorization_GroupName	<input type="checkbox"/>
DF_UserAuthorization_IndividualProjectName	<input type="checkbox"/>

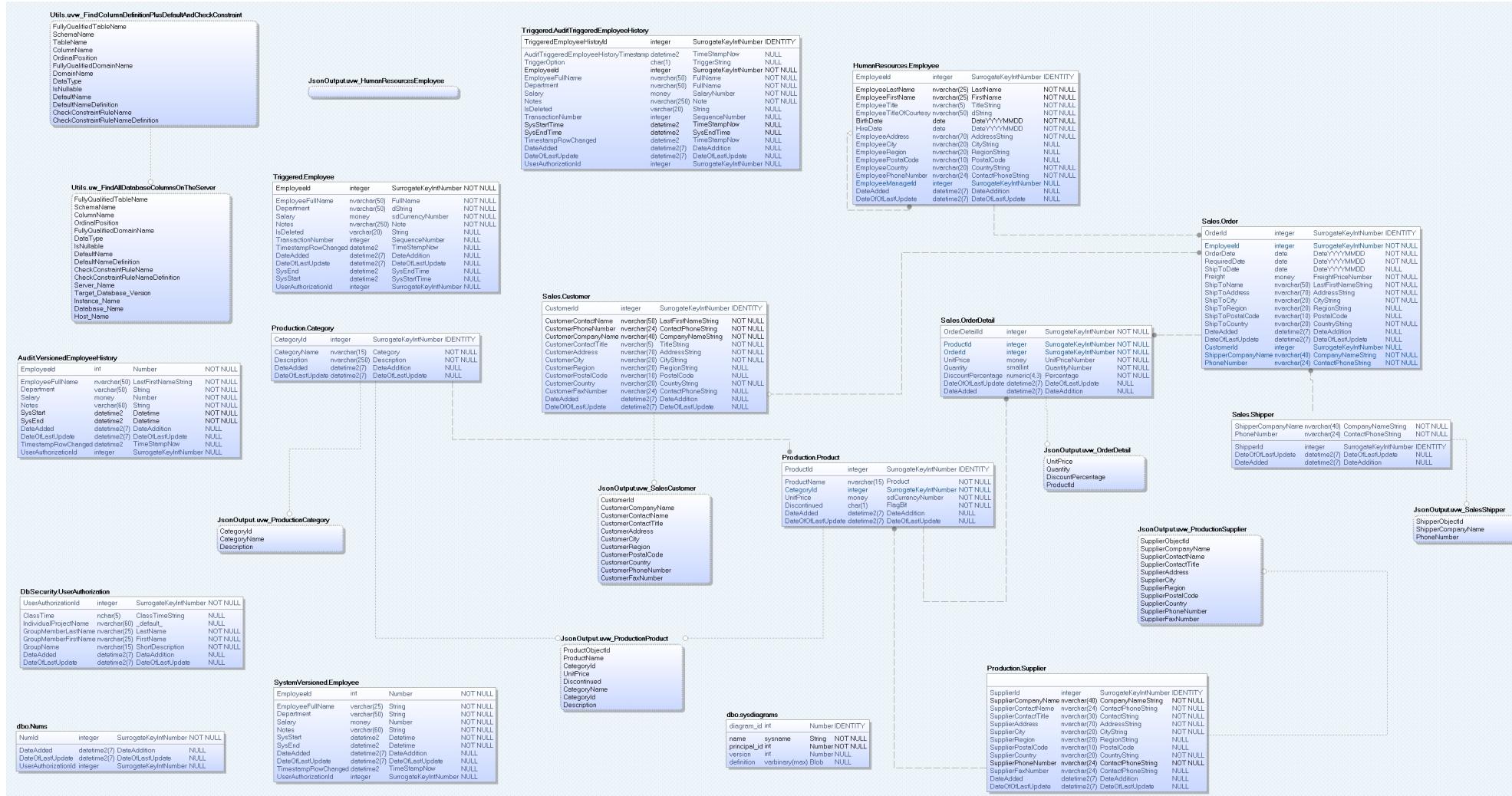
SQL Server	Comment	Where Used	UDP	Notes	Extended Notes
<a href="#">'DF_Template_FlagYes' Properties</a>					
Value	<input type="text" value="Y"/>				
Generate Using Bind	<input type="checkbox"/>				



# Redgate and SQL Documentation



# My Data Model



Thank you for watching! ☺