

```
-- *****
-- ***** NEW PRODUCTS *****
-- *****

-- Search and insert newly added product into staging added product table
INSERT INTO StagingDatabase.staging.stage_dim_product_added (product_id, name, valid_from, valid_to)
SELECT ProductID, Name, SellStartDate, SellEndDate
FROM AdventureWorks2017.Production.Product
WHERE productID IN (SELECT productID
                    FROM AdventureWorks2017.Production.Product
                    EXCEPT
                    SELECT product_id
                    FROM AdventureWorks_DW.star_schema.d_product);

-- Replace all NULL values with date 31.12.9999
UPDATE StagingDatabase.staging.stage_dim_product_added
SET valid_to='9999-12-31'
WHERE valid_to IS NULL;

-- Load newly added and modified rows into the Data Warehouse
INSERT INTO AdventureWorks_DW.star_schema.d_product
SELECT *
FROM StagingDatabase.staging.stage_dim_product_added;

-- *****
-- ***** DELETED PRODUCTS *****
-- *****

-- Retrieve and update data warehouse, set valid_to attribute to yesterdays date for deleted
-- products.
UPDATE AdventureWorks_DW.star_schema.d_product
SET valid_to = DATEADD(dd, -1, GETDATE())
WHERE product_id in (
    SELECT product_id
    FROM AdventureWorks_DW.star_schema.d_product
    WHERE product_id IN (SELECT product_id
                        FROM AdventureWorks_DW.star_schema.d_product
                        EXCEPT
                        SELECT productID
                        FROM AdventureWorks2017.Production.Product)
)

-- *****
-- ***** UPDATED PRODUCTS *****
-- *****

-- Inserting updated rows into the temporary table to handle changes
INSERT INTO StagingDatabase.staging.stage_dim_product_changed
(product_id, name, valid_from) (SELECT ProductID, Name, SellStartDate
                                FROM AdventureWorks2017.Production.Product
                                EXCEPT
                                SELECT product_id, name, valid_from
                                FROM StagingDatabase.staging.stage_dim_product
                                EXCEPT (
                                    SELECT ProductID, Name, SellStartDate
                                    FROM AdventureWorks2017.Production.Product
                                    WHERE productID IN
                                        (SELECT productID
                                         FROM AdventureWorks2017.Production.Product
                                         EXCEPT
                                         SELECT product_id
                                         FROM StagingDatabase.staging.stage_dim_product)
                                ));

-- Update valid_to attribute to '9999-12-31'
UPDATE StagingDatabase.staging.stage_dim_product_changed
SET valid_to = '9999-12-31'
```

```
WHERE valid_to IS NULL;
```

```
-- Alter changed rows in Data Warehouse
```

```
UPDATE AdventureWorks_DW.star_schema.d_product
```

```
SET valid_to = DATEADD(dd, -1, GETDATE())
```

```
WHERE product_id in (SELECT product_id FROM StagingDatabase.staging.stage_dim_product_changed);
```

```
-- Insert new product to Data Warehouse
```

```
INSERT INTO AdventureWorks_DW.star_schema.d_product
```

```
SELECT *
```

```
FROM StagingDatabase.staging.stage_dim_product_changed;
```