

```

-- *****
-- ***** CREATING STAGE TABLES *****
-- *****

--This statement creates staging dimension table stage_dim_customer with attributes and assigned primary key as customer_id
CREATE TABLE staging.stage_dim_customer
(
    dimension_customer_id INT NOT NULL IDENTITY,
    customer_id          INT NOT NULL,
    title                varchar(10),
    first_name           varchar(50),
    middle_name          varchar(50),
    last_name            varchar(50),
    PRIMARY KEY (customer_id)
);

--This statement creates staging dimension table stage_dim_product with attributes and assigned primary key as dimension_product_id
CREATE TABLE staging.stage_dim_product
(
    dimension_product_id INT NOT NULL IDENTITY,
    product_id           INT,
    name                 varchar(50),
    PRIMARY KEY (dimension_product_id)
);

--This statement creates staging dimension table stage_dim_date with attributes and assigned primary key as dimension_date_id
CREATE TABLE staging.stage_dim_date
(
    dimension_date_id INT NOT NULL IDENTITY,
    month_name        varchar(10),
    day_name          varchar(10),
    date              DATETIME NOT NULL,
    PRIMARY KEY (dimension_date_id)
);

-- *****
-- ***** INSERTING DATA INTO STAGE TABLES *****
-- *****

-- _____ CUSTOMER _____

--This statement inserts attribute values into staging dimension table stage_dim_customer
INSERT INTO staging.stage_dim_customer(customer_id, title, first_name, middle_name, last_name)
SELECT CustomerID, Title, FirstName, MiddleName, LastName
FROM AdventureWorks2017.Sales.Customer
JOIN AdventureWorks2017.Person.Person ON Customer.PersonID = Person.BusinessEntityID;

--This statement removes null values in the title attribute in stage_dim_customer table by replacing with 'N/A'
UPDATE staging.stage_dim_customer
SET title='N/A'
WHERE title IS NULL;

--This statement removes null values in the middle_name attribute in stage_dim_customer table by replacing with 'N/A'
UPDATE staging.stage_dim_customer
SET middle_name='N/A'
WHERE middle_name IS NULL;

-- _____ PRODUCT _____

--This statement inserts attribute values into staging dimension table stage_dim_product
INSERT INTO staging.stage_dim_product(product_id, name)
SELECT ProductID, Name
from AdventureWorks2017.Production.Product;

--This statement removes null values in the name attribute in stage_dim_product table by replacing with 'N/A'

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UPDATE staging.stage_dim_product
SET name='N/A'
WHERE name IS NULL;
```

```
-- _____ DATE _____
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```
--This statement inserts attribute values unto staging dimension table stage_dim_date
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```
DECLARE @StartDate DATETIME = '2011-05-31'
```

```
DECLARE @EndDate DATETIME = '2014-06-30'
```

```
WHILE @StartDate <= @EndDate
```

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BEGIN
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```
INSERT INTO StagingDatabase.staging.stage_dim_date (date,
                                                    day_name,
                                                    month_name)
```

```
SELECT @StartDate,
       DATENAME(weekday, @StartDate),
       DATENAME(month, @StartDate)
```

```
SET @StartDate = DATEADD(dd, 1, @StartDate)
```

```
END
```

```
-- *****
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```
-- ***** INSERTING DATA INTO FACT TABLES *****
```

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-- *****
```

```
--This statement creates staging fact table stage_f_sales with attributes and assigned primary key as sales_id
```

```
CREATE TABLE staging.stage_f_sales
```

```
(
  sales_id          INT      NOT NULL IDENTITY,
  customer_id       INT      NULL,
  product_id        INT      NULL,
  date_id           INT      NULL,
  business_customer_id INT    NULL,
  business_product_id INT    NULL,
  business_order_date DATETIME NULL,
  quantity          INT      NULL,
  line_total        FLOAT    NULL,
  PRIMARY KEY (sales_id)
```

```
);
```

```
--This statement inserts attribute values into staging fact table stage_f_sales
```

```
INSERT INTO staging.stage_f_sales(business_customer_id, business_product_id, business_order_date, quantity, line_total)
```

```
(SELECT C.CustomerID, P.ProductID, OrderDate, SOD.OrderQty, SOD.LineTotal
```

```
FROM AdventureWorks2017.Sales.SalesOrderHeader SOH
```

```
JOIN AdventureWorks2017.Sales.SalesOrderDetail SOD on SOH.SalesOrderID = SOD.SalesOrderID
```

```
JOIN AdventureWorks2017.Sales.Customer C on SOH.CustomerID = C.CustomerID
```

```
JOIN AdventureWorks2017.Production.Product P on SOD.ProductID = P.ProductID
```

```
WHERE OnlineOrderFlag = 1);
```

```
--This statement extracts the customer_id from staging dimesnsion table stage_dim_customer and assigns it to the customer_id attribute in stage_f_sales table when the value is null
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```
UPDATE staging.stage_f_sales
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```
SET customer_id = (SELECT dimension_customer_id FROM staging.stage_dim_customer AS dim_C_id WHERE
dim_C_id.customer_id = business_customer_id) WHERE customer_id IS NULL;
```

```
--This statement extracts the product_id from staging dimesnsion table stage_dim_product and assigns it to the product_id attribute in stage_f_sales table when the value is null
```

```
UPDATE staging.stage_f_sales
```

```
SET product_id = (SELECT dimension_product_id FROM staging.stage_dim_product AS dim_P_id WHERE
dim_P_id.product_id = business_product_id) WHERE product_id IS NULL;
```

```
--This statement extracts the date_id from staging dimesnsion table stage_dim_date and assigns it to the date_id attribute in
```

stage_f_sales table when the value is null

UPDATE staging.stage_f_sales

SET date_id = (**SELECT** dimension_date_id **FROM** staging.stage_dim_date **AS** dim_D_id **WHERE** dim_D_id.date =
business_order_date) **WHERE** date_id **IS NULL**;