

/* Cleaning Data in SQL Queries */

```
Select *  
From PortfolioProject.dbo.NashvilleHousing
```

-- Standardize Date Format

```
Select SaleDate, CONVERT(Date, SaleDate)  
From PortfolioProject.dbo.NashvilleHousing  
  
update NashvilleHousing  
SET SaleDate=CONVERT(Date, SaleDate)  
  
Alter table NashvilleHousing  
Add SalesDateConverted Date;  
  
update NashvilleHousing  
SET SalesDateConverted=CONVERT(Date, SaleDate)  
  
ALTER TABLE NashvilleHousing  
ALTER COLUMN SaleDate Date  
  
ALTER TABLE NashvilleHousing  
DROP COLUMN SalesDateConverted
```

-- Populate Property Address data

```
Select a.ParcelID, a.PropertyAddress, b.ParcelID, b.PropertyAddress  
From PortfolioProject.dbo.NashvilleHousing a  
  
Join PortfolioProject.dbo.NashvilleHousing b  
on a.ParcelID=b.ParcelID
```

```

and a.[UniqueID] <> b.[UniqueID ]
where a.PropertyAddress is null

Update a
SET PropertyAddress=ISNULL(a.PropertyAddress,b.PropertyAddress)
From PortfolioProject.dbo.NashvilleHousing a
JOIN PortfolioProject.dbo.NashvilleHousing b
    on a.ParcelID = b.ParcelID
    AND a.[UniqueID ] <> b.[UniqueID ]
Where a.PropertyAddress is null

```

-- Breaking out Address into Individual Columns (Address, City)

```

SELECT
SUBSTRING(PropertyAddress,1,CHARINDEX(',',PropertyAddress)-1) as
Address,
SUBSTRING(PropertyAddress,CHARINDEX(',',PropertyAddress) +1
,LEN(PropertyAddress)) as City

From PortfolioProject.dbo.NashvilleHousing

ALTER TABLE NashvilleHousing
Add PropertySplitAddress VARCHAR(255);
ALTER TABLE [dbo].[NashvilleHousing]
Add PropertySplitCity Nvarchar(255);

UPDATE NashvilleHousing
SET
PropertySplitAddress=SUBSTRING(PropertyAddress,1,CHARINDEX(',',PropertyAddress)-1)
UPDATE NashvilleHousing
SET
PropertySplitCity=SUBSTRING(PropertyAddress,CHARINDEX(',',PropertyAddress) +1 ,LEN(PropertyAddress))

```

-- Breaking out OwnerAddress into Individual Columns (Address, City, State)

```
Select OwnerAddress
From PortfolioProject.dbo.NashvilleHousing
```

```
Select
SUBSTRING(OwnerAddress,1,CHARINDEX(',',Owneraddress)-1) as
NewOwnAddress,
SUBSTRING(OwnerAddress,CHARINDEX(',',Owneraddress)+1,CHARINDEX(',',Owneraddress)) as NewOwnCity
From PortfolioProject.dbo.NashvilleHousing
```

```
Alter TABLE NashvilleHousing
Add OwnerSplitAddress VARCHAR(255)
```

```
Update NashvilleHousing
SET
OwnerSplitAddress=SUBSTRING(OwnerAddress,1,CHARINDEX(',',Owneraddress)-1)
From PortfolioProject.dbo.NashvilleHousing
```

```
Alter TABLE NashvilleHousing
Add OwnerSplitcity VARCHAR(255)
```

```
Update NashvilleHousing
SET
OwnerSplitcity=SUBSTRING(OwnerAddress,CHARINDEX(',',Owneraddress)+1,CHARINDEX(',',Owneraddress))
From PortfolioProject.dbo.NashvilleHousing
```

```
Select
SUBSTRING(Ownersplitcity,1,CHARINDEX(',',Ownersplitcity)) as
Ownercity,
SUBSTRING(Ownersplitcity,CHARINDEX(',',Ownersplitcity)+1,LEN(Ownersplitcity)) as OwnerState
From PortfolioProject.dbo.NashvilleHousing
```

```
Alter TABLE NashvilleHousing
Add OwnerSplitcity2 VARCHAR(255)
```

```
Update NashvilleHousing
SET
OwnerSplitcity2=SUBSTRING(Ownersplitcity,1,CHARINDEX(',',Ownersplitcity))
From PortfolioProject.dbo.NashvilleHousing
```

```
Alter TABLE NashvilleHousing
Add OwnerSplitstate VARCHAR(255)
Update NashvilleHousing
SET
OwnerSplitstate=SUBSTRING(Ownersplitcity,CHARINDEX(',',Ownersplitcity)
+1,LEN(Ownersplitcity))
From PortfolioProject.dbo.NashvilleHousing
```

```
Select *
From PortfolioProject.dbo.NashvilleHousing
```

```
Alter Table NashvilleHousing
DROP COLUMN OwnerSplitcity
```

```
EXEC sp_rename 'NashvilleHousing.OwnerSplitcity2', 'OwnerSplitcity',
'COLUMN'
```

```
UPDATE NashvilleHousing
SET OwnerSplitcity=REPLACE( OwnerSplitcity,',','');
```

-- Change Y and N to Yes and No in "Sold as Vacant" field

```
Select SoldAsVacant,Count(SoldAsVacant)
From PortfolioProject.dbo.NashvilleHousing
Group by SoldAsVacant
order by 2
```

```
Select SoldAsVacant,
```

```
CASE when SoldAsVacant='Y' Then 'Yes'
      When SoldAsVacant='N' Then 'No'
      Else SoldAsVacant
      End
From PortfolioProject.dbo.NashvilleHousing

update NashvilleHousing
SET
SoldAsVacant=CASE when SoldAsVacant='Y' Then 'Yes'
                When SoldAsVacant='N' Then 'No'
                Else SoldAsVacant
                End
```