

```
-- DATABASE ADVENTURE WORKS 2019
--- The Following is a Query on Adventure Works Database.
----
--1. How many people in the DB do not have a middle name? Show the query.
```

```
SELECT* FROM PERSON.Person
SELECT MiddleName FROM PERSON.Person
```

```
SELECT MiddleName FROM PERSON.Person
WHERE MiddleName = 'NULL'
```

```
SELECT MiddleName FROM PERSON.Person
WHERE MiddleName = NULL
-- THIS IS THE BEST WAY TO GET THE NULL VALUE USING 'IS'
SELECT MiddleName FROM PERSON.Person
WHERE MiddleName IS NULL
```

```
SELECT COUNT (*) MiddleName FROM PERSON.Person
WHERE MiddleName IS NULL
```

```
--2. How many email addresses do not end in adventure-works.com? Show the query.
```

```
SELECT* FROM PERSON.EmailAddress
```

```
SELECT COUNT(*) FROM PERSON.EmailAddress
WHERE EmailAddress NOT LIKE '%ADVENTURE-WORKS.COM'
-- The code below is counting the column EmailAddress it is also the same as Count
All
SELECT COUNT(EmailAddress) FROM PERSON.EmailAddress
WHERE EmailAddress NOT LIKE '%ADVENTURE-WORKS.COM'
```

```
-- 3 A customer has concerns with market penetration and would like a report on
what states have
--the most sales between 2010-2011. Provide the data that the customer would find
most
--relevant and add any additional information if required.
```

```
Select* from Sales.Customer
--CustomerID, PersonID, StoreID, TerritoryID, AccountNUmmbber
```

```
Select* From Sales.SalesPerson;
--In this table we have PK BusinessEntityID, Others SalesQuota, SalesYTD,
SalesLastYear, TerritoryID
```

```
Select* From Sales.SalesTerritoryHistory
--In this table we have PK BusinessEntityID, others are TerritoryID, StartDate,
EndDate, ModifiedDate
```

```
Select* From Person.StateProvince
--In this table we have PK TerritoryID, others are Name, ModifiedDate
```

```
Select SSP.BusinessEntityID, Name As State, SalesQuota, SalesYTD, SalesLastYear,
    StartDate, EndDate
From Sales.SalesPerson AS SSP
Left Outer Join Sales.SalesTerritoryHistory AS SST
ON SSP.BusinessEntityID = SST.BusinessEntityID
inner join Person.StateProvince as PSP
On SSP.TerritoryID = PSP.TerritoryID
Where StartDate Between '2011-01-01' and '2012-12-31'
Order By SalesQuota Desc
```

```
Select Top 10 SSP.BusinessEntityID, Name As State, SalesQuota, SalesYTD,
    SalesLastYear, StartDate, EndDate
From Sales.SalesPerson AS SSP
Left Outer Join Sales.SalesTerritoryHistory AS SST
ON SSP.BusinessEntityID = SST.BusinessEntityID
inner join Person.StateProvince as PSP
On SSP.TerritoryID = PSP.TerritoryID
Where StartDate Between '2011-01-01' and '2012-12-31'
Order By SalesYTD Desc
```

```
--Corrected
Select Top 10 Name As State, Sum(SalesYTD) As SalesYTD, SalesLastYear
From Sales.SalesPerson AS SSP
Left Outer Join Sales.SalesTerritoryHistory AS SST
ON SSP.BusinessEntityID = SST.BusinessEntityID
inner join Person.StateProvince as PSP
On SSP.TerritoryID = PSP.TerritoryID
Where StartDate Between '2011-01-01' and '2012-12-31'
Group by Name, SalesLastYear
Order By Sum(SalesYTD) Desc
```

```
Select SSP.BusinessEntityID, Name, SalesQuota, SalesYTD, SalesLastYear, StartDate,
    EndDate
From Sales.SalesPerson AS SSP
Left Outer Join Sales.SalesTerritoryHistory AS SST
ON SSP.BusinessEntityID = SST.BusinessEntityID
inner join Person.StateProvince as PSP
On SSP.TerritoryID = PSP.TerritoryID
Where StartDate Between '2011-01-01' and '2012-12-31'
```

```
Select SC.CustomerID, SalesOrderID, Orderdate, Totaldue, FirstName, LastName
From Sales.Customer AS SC
Left Outer Join Sales.SalesOrderHeader AS SS
ON SC.CustomerID = SS.CustomerID
inner join person.person as PP
```

```
on SC.PersonID = PP.BusinessEntityID;
```

```
-- 4. A ticket is escalated and asks what customers got the email promotion.  
Please provide the information.
```

```
Select* From Sales.SalesReason
```

```
--SalesReasonID, Name, ReasonType
```

```
Select* From Sales.SalesOrderHeaderSalesReason
```

```
-- After the query above I found out SalesReasonID 2 is on promotion and  
SalesOrderID
```

```
Select* From Sales.SalesOrderHeader
```

```
-- CustomerID, SalesorderID
```

```
Select SalesReasonID, Name from Sales.SalesReason
```

```
Where SalesReasonID = 2
```

```
Select* From Person.Person
```

```
Select PersonType, Title, FirstName, Middlename, LastName, EmailPromotion
```

```
From Person.Person
```

```
Where EmailPromotion >= 1
```

```
and PersonType like '%IN%'
```

```
--Eneh
```

```
select PCH.ProductID, PTH.ActualCost, PCH.StandardCost , EmailAddress from  
Production.TransactionHistory PTH
```

```
left join Production.ProductCostHistory PCH
```

```
on PCH.ProductID = PTH.ProductID
```

```
inner join Person.EmailAddress PEA
```

```
on PCH.ProductID = PEA.BusinessEntityID
```

```
where PCH.StandardCost < PTH.ActualCost
```

```
order by ActualCost desc;
```

```
Select* from Sales.SalesOrderHeaderSalesReason
```

```
Select SalesOrderID, SalesReasonID from Sales.SalesOrderHeaderSalesReason
```

```
Where SalesReasonID =2
```

```
Select SHS.SalesOrderID, CustomerID, ReasonType
```

```
From Sales.SalesReason As SSR
```

```
Inner Join Sales.SalesOrderHeaderSalesReason As SHS
```

```
ON SSR.SalesReasonID = SHS.SalesReasonID
```

```
Left Outer Join Sales.SalesOrderHeader As SOH
```

```
ON SHS.SalesOrderID = SOH.SalesOrderID
```

```
Where SSR.SalesReasonID = 2
```

```
--5. Retrieve a list of the different types of contacts and how many of them exist  
in the database.
```

```
--We are only interested in ContactTypes that have 100 contacts or more.
```

```
Select* from Person.Address
--AdressID, AdressLine1, City, PostalCode, StateProvinceID
Select* from Person.EmailAddress
--BusinessEntityID, EmailAddress, EmailAddressID
Select* from Person.PersonPhone
--BusinessEntityID, PhoneNumber

Select PE.EmailAddressID, AddressLine1, City, PostalCode, StateProvinceID,
      EmailAddress, PhoneNumber
From   Person.Address AS PA
Inner Join Person.EmailAddress AS PE
On PA.AddressID = PE.EmailAddressID
Inner Join Person.PersonPhone AS PPP
ON PE.BusinessEntityID = PPP.BusinessEntityID

-- 6. Retrieve a list of all contacts which are 'Purchasing Manager' and their
names

Select* From HumanResources.Employee

Select BusinessEntityID, NationalIDNumber, JobTitle, Gender From
      HumanResources.Employee
Where JobTitle like 'Purchasing Manager'

Select* From Person.Person

Select BusinessEntityID, PersonType, FirstName, MiddleName, LastName From
      Person.Person
Where BusinessEntityID = 250

Select HRE.BusinessEntityID, PersonType, JobTitle, FirstName, MiddleName,
      LastName, NationalIDNumber, Gender
From   HumanResources.Employee As HRE
Inner Join Person.Person As PP
ON HRE.BusinessEntityID =PP.BusinessEntityID
Where JobTitle like 'Purchasing Manager'

-- 7. Show OrdeQty, the Name and the ListPrice of the order made by CustomerID
635

Select* From Sales.Customer
-- CustomerID, PersonID, StoreID, AccounNumber, TerritoryID
Select* From Sales.SalesOrderHeader
--SalesOrderID, CustomerID,
Select* From Sales.SalesOrderDetail
--SalesOrderID, OrderQty, UnitPrice, UnitPriceDiscount, LineTotal
Select* From Person.Person
--BusinessEntityID, Firstname, MiddleName, LastName
```

```
Select* From Sales.SalesPerson
--BusinessEntityID, TerritoryID
```

```
Select SC.CustomerID, Firstname, MiddleName, LastName, OrderQty, UnitPrice,
      UnitPriceDiscount, LineTotal
From Sales.Customer AS SC
Left Outer Join Sales.SalesOrderHeader AS SSO
ON SC.CustomerID = SSO.CustomerID
Left Outer Join Sales.SalesOrderDetail AS SSD
ON SSO.SalesOrderID = SSD.SalesOrderID
Inner Join Sales.SalesPerson AS SSP
ON SC.TerritoryID = SSP.TerritoryID
Inner Join Person.Person AS PP
ON SSP.BusinessEntityID = PP.BusinessEntityID
Where SC.CustomerID = 635
```

```
Select CustomerID, PersonID, StoreID, AccountNumber from Sales.Customer
Where CustomerID =635
```

```
Select* From Sales.vIndividualCustomer
-- SalesOrderID, SalesOrderDetails, OrderQty, UnitPrice
```

```
Select* from Sales.SalesOrderHeader
-- CustomerID, SalesOrderID, AccountNumber, SalesOrderNumber
```

```
Select CustomerID, SalesOrderNumber from Sales.SalesOrderHeader
Where CustomerID = 636
```

```
Select* From Purchasing.Vendor
```

```
Select Name, accountnumber from Purchasing.Vendor
Where AccountNumber like 'AW00000635'
```

```
Select* From Sales.SalesOrderHeader
```

```
-- 8. A "Single Item Order" is a customer order where only one item is ordered.
Show the
--SalesOrderID and the UnitPrice for every Single Item Order.
```

```
Select* from Sales.SalesOrderDetail
```

```
Select Distinct SalesOrderID, OrderQty,UnitPrice
From Sales.SalesOrderDetail
Where OrderQty = 1
Group By SalesOrderID
```

```
Select distinct SalesOrderID, OrderQty, UnitPrice
```

```
From Sales.SalesOrderDetail
Where OrderQty = 1
Order by UnitPrice DESC
```

```
--9. Where did the racing socks go? List the product name and the CompanyName for
all
--Customers who ordered ProductModel 'Racing Socks'.
```

```
Select* From Production.Product
```

```
Select ProductID, Name, ProductModelID, ProductNumber From Production.Product
Where name like '%Racing%'
```

```
Select* From Production.Product
--ProductID, Name AS ProductName, ProductModelID, ProductNumber
Select ProductID, Name From Production.Product
Where name like '%Racing%'
```

```
Select* From Purchasing.ProductVendor
--ProductID, BusinessEntityID, OneOrderQty
Select ProductID, Name From Production.Product
Where ProductID = 875
```

```
Select* From Purchasing.Vendor
--BusinessEntityID, AccountNumber Name AS CompanyName
Select* from Sales.SalesOrderHeader
--CustomerID, AccountNumber
```

```
Select PPV.ProductID, CustomerID, PV.BusinessEntityID, PP.Name As ProductName,
PV.Name As CompanyName, MinOrderQty, MaxOrderQty,
OnOrderQty
From Purchasing.ProductVendor As PPV
Inner Join Production.Product As PP
On PPV.ProductID = PP.ProductID
Inner Join Purchasing.Vendor As PV
On PPV.BusinessEntityID = PV.BusinessEntityID
Left Outer Join Sales.SalesOrderHeader AS SSH
ON PV.AccountNumber = SSH.AccountNumber
Where PPV.ProductID In (874, 875)
```

```
Select* from Sales.store
--Eneh
select sc.CustomerID, ppm.Name, ss.Name as CompanyName from sales.customer sc
left join Sales.SalesOrderHeader ssOH
on sc.CustomerID = ssOH.CustomerID
left join sales.Store ss
on ss.BusinessEntityID = sc.StoreID
left join sales.SalesOrderDetail ssOD
on ssOD.SalesOrderID = ssOH.SalesOrderID
```

```

left join Production.Product pp
on pp.ProductID = ssod.ProductID
left join Production.ProductModel ppm
on ppm.ProductModelID = pp.ProductModelID
where ppm.name like '%racing socks%'
order by sc.CustomerID desc;

```

```

Select PPV.ProductID, CustomerID, PV.BusinessEntityID, PP.Name As ProductName,
      PV.Name As CompanyName, MinOrderQty, MaxOrderQty,
OnOrderQty
From Purchasing.ProductVendor As PPV
Inner Join Production.Product As PP
On PPV.ProductID = PP.ProductID
Inner Join Purchasing.Vendor As PV
On PPV.BusinessEntityID = PV.BusinessEntityID
Left Outer Join Sales.SalesOrderHeader AS SSH
ON PV.AccountNumber = SSH.AccountNumber
Where PP.Name like '%racing socks%'

order by PPV.CustomerID desc;

```

--10. How many products in ProductCategory 'Cranksets' have been sold to an address in 'London'?

```

Select* From Production.ProductSubcategory
Where Name like '%Crankset%'
--ProductSubCategoryID, ProductCategoryID, Name AS ProductName
Select* From Production.Product
Where Name like '%Crankset%'
--ProductID, ProductName, ProductSubcategoryID
Select* From Sales.SalesOrderDetail
--SalesOrderID, OrderQty, ProductID
Select* From Sales.SalesOrderHeader
-- SalesOrderID, AccountNumber, CustomerID, ShipToAddressID
Select* From Purchasing.Vendor
--AccountNumber, BusinessEntityID, Name As CompanyName
Select* From Person.Address
-- AdreessID, AddressLine1, City

```

```

Select CustomerID, PPS.Name AS ProductName, AddressLine1 AS VendorAddress, City,
      SSO.SalesOrderID, OrderQty
From Production.ProductSubcategory AS PPS
Inner Join Production.Product AS PP
On PPS.ProductSubcategoryID = PP.ProductSubcategoryID
Left Outer Join Sales.SalesOrderDetail AS SSO
On PP.ProductID = SSO.ProductID
Left Outer Join Sales.SalesOrderHeader AS SSH
On SSO.SalesOrderID = SSH.SalesOrderID

```

```
Left Outer Join Purchasing.Vendor AS PV
On SSH.AccountNumber = PV.AccountNumber
Left Outer Join Person.Address AS PA
On SSH.ShipToAddressID = PA.AddressID
Where PPS.Name like '%Crankset%'
and City like '%London%'
```

--11. Show the best-selling item by value.

```
Select* From Sales.SalesOrderDetail
```

```
Select* From Sales.SalesOrderHeader
```

```
Select* from Sales.Store
```

```
Select SalesOrderID, Sum(LineTotal) As TotalSales
From Sales.SalesOrderDetail
Group by SalesOrderID
```