

SQL Assignment-1 USED AdventureWorks2019 Database

1)

```
SELECT * FROM Sales.Customer;
```

2)

```
SELECT c.*,s.Name as CompanyName
FROM Sales.Customer c
JOIN Sales.Store s
on c.StoreID=s.BusinessEntityID
WHERE s.Name LIKE '%N';
```

3)

```
SELECT c.*, a.City
FROM Sales.Customer c
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
JOIN Person.BusinessEntityAddress bea ON p.BusinessEntityID = bea.BusinessEntityID
JOIN Person.Address a ON bea.AddressID = a.AddressID
WHERE a.City IN ('Berlin', 'London');
```

```
Select * from Person.Address;
Select * from Person.Person;
Select * from Sales.Customer where PersonID IS NOT NULL;
Select * from Person.BusinessEntityAddress;
```

4)

```
SELECT c.*, a.City, cr.Name AS Country
FROM Sales.Customer c
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
JOIN Person.BusinessEntityAddress bea ON p.BusinessEntityID = bea.BusinessEntityID
JOIN Person.Address a ON bea.AddressID = a.AddressID
JOIN Person.StateProvince sp ON a.StateProvinceID = sp.StateProvinceID
JOIN Person.CountryRegion cr ON sp.CountryRegionCode = cr.CountryRegionCode
WHERE cr.Name IN ('United Kingdom', 'United States');
```

```
Select * from Person.Address;
Select * from Person.Person;
Select * from Sales.Customer where PersonID IS NOT NULL;
Select * from Person.BusinessEntityAddress;
SELECT * FROM Person.StateProvince;
SELECT * FROM Person.CountryRegion;
SELECT * FROM Sales.Customer;
```

5)

```
SELECT * FROM Production.Product
ORDER BY Name;
```

6)

```
SELECT * FROM Production.Product
WHERE Name LIKE 'A%';
```

7)

```
SELECT DISTINCT c.*
FROM Sales.Customer c
JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID;
```

```
Select * from Person.Address;
```

```

Select * from Person.Person;
Select * from Sales.Customer where PersonID IS NOT NULL;
Select * from Person.BusinessEntityAddress;
SELECT * FROM Person.StateProvince;
SELECT * FROM Person.CountryRegion;
SELECT * FROM Sales.Customer;
SELECT * from Sales.SalesOrderDetail;
SELECT * from Sales.SalesOrderHeader;

```

8)

```

SELECT DISTINCT c.*
FROM Sales.Customer c
JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
JOIN Sales.SalesOrderDetail sod ON soh.SalesOrderID = sod.SalesOrderID
JOIN Production.Product p ON sod.ProductID = p.ProductID
JOIN Person.BusinessEntityAddress bea ON c.PersonID = bea.BusinessEntityID
JOIN Person.Address a ON bea.AddressID = a.AddressID
WHERE a.City = 'London' AND p.Name = 'chai';

```

9)

```

SELECT * FROM Sales.Customer c
WHERE NOT EXISTS (
    SELECT SalesOrderID
    FROM Sales.SalesOrderHeader soh
    WHERE c.CustomerID = soh.CustomerID
);

```

10)

```

SELECT DISTINCT c.*
FROM Sales.Customer c
JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
JOIN Sales.SalesOrderDetail sod ON soh.SalesOrderID = sod.SalesOrderID
JOIN Production.Product p ON sod.ProductID = p.ProductID
WHERE p.Name = 'Tofu';

```

```

SELECT * from Production.Product ;
SELECT * from Sales.SalesOrderDetail;
SELECT * from Sales.SalesOrderHeader;

```

11)

```

SELECT TOP 1 *
FROM Sales.SalesOrderHeader
ORDER BY OrderDate;
SELECT * from Sales.SalesOrderHeader;

```

12)

```

SELECT TOP 1 *
FROM Sales.SalesOrderHeader
ORDER BY TotalDue DESC;
SELECT * from Sales.SalesOrderHeader;

```

13)

```

SELECT SalesOrderID AS OrderID, AVG(OrderQty) AS AverageQuantity
FROM Sales.SalesOrderDetail
GROUP BY SalesOrderID;

```

14)

```

SELECT SalesOrderID, MIN(OrderQty) AS MinQuantity, MAX(OrderQty) AS MaxQuantity

```

```
FROM Sales.SalesOrderDetail
GROUP BY SalesOrderID;
SELECT * from Sales.SalesOrderDetail;
```

16)

```
SELECT SalesOrderID, SUM(OrderQty) AS TotalQuantity
FROM Sales.SalesOrderDetail
GROUP BY SalesOrderID
HAVING SUM(OrderQty) > 300;
```

```
SELECT * from Sales.SalesOrderDetail;
```

17)

```
SELECT * FROM Sales.SalesOrderHeader
WHERE OrderDate >= '1996-12-31';
```

18)

```
SELECT soh.*
FROM Sales.SalesOrderHeader soh
JOIN Person.Address a ON soh.ShipToAddressID = a.AddressID
JOIN Person.StateProvince sp ON a.StateProvinceID = sp.StateProvinceID
WHERE sp.CountryRegionCode = 'CA';
```

```
select * from Person.StateProvince;
```

19)

```
SELECT * FROM Sales.SalesOrderHeader
WHERE TotalDue > 200;
```

20)

```
SELECT cr.Name AS Country, SUM(soh.TotalDue) AS TotalSales
FROM Sales.SalesOrderHeader soh
JOIN Person.Address a ON soh.BillToAddressID = a.AddressID
JOIN Person.StateProvince sp ON a.StateProvinceID = sp.StateProvinceID
JOIN Person.CountryRegion cr ON sp.CountryRegionCode = cr.CountryRegionCode
GROUP BY cr.Name;
```

21)

```
SELECT p.FirstName + ' ' + p.LastName AS ContactName, COUNT(soh.SalesOrderID) AS
NumberOfOrders
FROM Sales.Customer c
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
GROUP BY p.FirstName, p.LastName;
```

22)

```
SELECT p.FirstName + ' ' + p.LastName AS ContactName
FROM Sales.Customer c
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
GROUP BY p.FirstName, p.LastName
HAVING COUNT(soh.SalesOrderID) > 3;
```

23)

```
SELECT DISTINCT p.*
FROM Production.Product p
JOIN Sales.SalesOrderDetail sod ON p.ProductID = sod.ProductID
```

```
JOIN Sales.SalesOrderHeader soh ON sod.SalesOrderID = soh.SalesOrderID
WHERE p.DiscontinuedDate IS NOT NULL
AND soh.OrderDate BETWEEN '1957-01-01' AND '2998-01-01';
```

25)

```
SELECT e.BusinessEntityID, SUM(soh.TotalDue) AS TotalSales
FROM Sales.SalesOrderHeader soh
JOIN Sales.SalesPerson sp ON soh.SalesPersonID = sp.BusinessEntityID
JOIN HumanResources.Employee e ON sp.BusinessEntityID = e.BusinessEntityID
GROUP BY e.BusinessEntityID;
```

26)

```
SELECT p.FirstName+' '+p.MiddleName+' '+p.LastName as EmployeeName
FROM HumanResources.Employee e
JOIN Person.Person p ON e.BusinessEntityID = p.BusinessEntityID
WHERE p.FirstName LIKE '%a%';
```

28)

```
SELECT soh.SalesOrderID, p.Name AS ProductName
FROM Sales.SalesOrderHeader soh
JOIN Sales.SalesOrderDetail sod ON soh.SalesOrderID = sod.SalesOrderID
JOIN Production.Product p ON sod.ProductID = p.ProductID;
SELECT * from Sales.SalesOrderDetail;
SELECT * from Sales.SalesOrderHeader;
```

29)

```
SELECT soh.*
FROM Sales.SalesOrderHeader soh
JOIN (SELECT TOP 1 CustomerID, SUM(TotalDue) AS TotalSpent
FROM Sales.SalesOrderHeader
GROUP BY CustomerID
ORDER BY SUM(TotalDue) DESC) bc ON soh.CustomerID = bc.CustomerID;
```

30)

```
SELECT soh.*
FROM Sales.SalesOrderHeader soh
JOIN Sales.Customer c ON soh.CustomerID = c.CustomerID
LEFT JOIN Person.BusinessEntityContact bec ON c.CustomerID = bec.BusinessEntityID AND
bec.ContactTypeID = (SELECT ContactTypeID FROM Person.ContactType WHERE Name = 'Fax')
WHERE bec.BusinessEntityID IS NULL;
```

31)

```
SELECT DISTINCT a.PostalCode
FROM Sales.SalesOrderHeader soh
JOIN Sales.SalesOrderDetail sod ON soh.SalesOrderID = sod.SalesOrderID
JOIN Production.Product p ON sod.ProductID = p.ProductID
JOIN Person.Address a ON soh.ShipToAddressID = a.AddressID
WHERE p.Name = 'Tofu';
```

32)

```
SELECT DISTINCT p.Name, cr.Name
FROM Sales.SalesOrderHeader soh
JOIN Sales.SalesOrderDetail sod ON soh.SalesOrderID = sod.SalesOrderID
JOIN Production.Product p ON sod.ProductID = p.ProductID
JOIN Person.Address a ON soh.ShipToAddressID = a.AddressID
JOIN Person.StateProvince sp ON a.StateProvinceID = sp.StateProvinceID
JOIN Person.CountryRegion cr ON sp.CountryRegionCode = cr.CountryRegionCode
WHERE cr.Name = 'France';
```

33)

```
SELECT p.Name AS ProductName, pc.Name AS CategoryName
FROM Production.Product p
JOIN Production.ProductSubcategory ps ON p.ProductSubcategoryID =
ps.ProductSubcategoryID
JOIN Production.ProductCategory pc ON ps.ProductCategoryID = pc.ProductCategoryID
JOIN Purchasing.ProductVendor pv ON p.ProductID = pv.ProductID
JOIN Purchasing.Vendor v ON pv.BusinessEntityID = v.BusinessEntityID;

SELECT p.Name AS ProductName, pc.Name AS CategoryName
FROM Production.Product p
JOIN Production.ProductSubcategory ps ON p.ProductSubcategoryID =
ps.ProductSubcategoryID
JOIN Production.ProductCategory pc ON ps.ProductCategoryID = pc.ProductCategoryID
JOIN Purchasing.ProductVendor pv ON p.ProductID = pv.ProductID
JOIN Purchasing.Vendor v ON pv.BusinessEntityID = v.BusinessEntityID
WHERE v.Name = 'Specialty Biscuits, Ltd';
```

34)

```
SELECT p.ProductID, p.Name AS ProductName
FROM Production.Product p
LEFT JOIN Sales.SalesOrderDetail sod ON p.ProductID = sod.ProductID
WHERE sod.ProductID IS NULL;
```

36)

```
SELECT TOP 10 cr.Name AS Country, SUM(soh.TotalDue) AS TotalSales
FROM Sales.SalesOrderHeader soh
JOIN Person.Address a ON soh.BillToAddressID = a.AddressID
JOIN Person.StateProvince sp ON a.StateProvinceID = sp.StateProvinceID
JOIN Person.CountryRegion cr ON sp.CountryRegionCode = cr.CountryRegionCode
GROUP BY cr.Name
ORDER BY SUM(soh.TotalDue) DESC;
```

37)

```
SELECT e.BusinessEntityID, COUNT(soh.SalesOrderID) AS NumberOfOrders
FROM Sales.SalesOrderHeader soh
JOIN Sales.SalesPerson sp ON soh.SalesPersonID = sp.BusinessEntityID
JOIN HumanResources.Employee e ON sp.BusinessEntityID = e.BusinessEntityID
JOIN Sales.Customer c ON soh.CustomerID = c.CustomerID
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
WHERE p.LastName BETWEEN 'A' AND 'AO'
GROUP BY e.BusinessEntityID;
```

38)

```
SELECT TOP 1 OrderDate
FROM Sales.SalesOrderHeader
ORDER BY TotalDue DESC;
```

39)

```
SELECT p.Name AS ProductName, SUM(sod.LineTotal) AS TotalRevenue
FROM Sales.SalesOrderDetail sod
JOIN Production.Product p ON sod.ProductID = p.ProductID
GROUP BY p.Name
ORDER BY TotalRevenue DESC;
```

40)

```
SELECT v.Name AS Supplier, COUNT(pv.ProductID) AS NumberOfProducts
FROM Purchasing.Vendor v
JOIN Purchasing.ProductVendor pv ON v.BusinessEntityID = pv.BusinessEntityID
```

```
GROUP BY v.Name;
```

41)

```
SELECT TOP 10 c.CustomerID, p.FirstName + ' ' + p.LastName AS CustomerName,  
SUM(soh.TotalDue) AS TotalSpent  
FROM Sales.SalesOrderHeader soh  
JOIN Sales.Customer c ON soh.CustomerID = c.CustomerID  
JOIN Person.Person p ON c.PersonID = p.BusinessEntityID  
GROUP BY c.CustomerID, p.FirstName, p.LastName  
ORDER BY SUM(soh.TotalDue) DESC;
```

42)

```
SELECT SUM(TotalDue) AS TotalRevenue  
FROM Sales.SalesOrderHeader;
```