**Lab 1 :** Introduction

1. Human Resources

2. EmployeeId

3. ContactID -----> Contact Table

ManagerID -----> Manager Table

4.ManagerId

5. S / M

6. NationalIDNumber

LoginID

Title

7. 1---->Salaried,Exempt from collective bargaining

**Lab 2 :** Basic Select Statements

SELECT Person.Contact.FirstName,Person.Contact.LastName,HumanResources.Employee.Title,Sales.SalesPerson.SalesYTD,Sales.SalesTerritory.Name

FROM Person.Contact INNER JOIN HumanResources.Employee ON Person.Contact.ContactID=HumanResources.Employee.ContactID INNER JOIN

Sales.SalesPerson ON HumanResources.Employee.EmployeeID=Sales.SalesPerson.SalesPersonID INNER JOIN

Sales.SalesTerritory ON Sales.SalesPerson.TerritoryID=Sales.SalesTerritory.TerritoryID

Lab 2 Challenge :

SELECT Production.Product.Name,Purchasing.Vendor.Name AS EXPR1,Person.Address.City

FROM Purchasing.Vendor CROSS JOIN Production.Product CROSS JOIN Person.Address

**Lab 3 :** Languages in SQL

DDL DML DCL

CREATE SELECT GRANT

DROP INSERT DENY

ALTER DELETE

UPDATE

**Lab 4 :**

1.SELECT \* FROM AdventureWorks.HumanResources.Employee;

2.SELECT LoginID, Title,VacationHours FROM HumanResources.Employee

3.SELECT HumanResources.Employee.MaritalStatus,Person.Contact.FirstName FROM HumanResources.Employee

INNER JOIN Person.Contact ON HumanResources.Employee.ContactID=Person.Contact.ContactID WHERE HumanResources.Employee.MaritalStatus='S';

4.SELECT HumanResources.Employee.MaritalStatus,Person.Contact.FirstName FROM HumanResources.EmployeeINNER JOIN

Person.ContactONHumanResources.Employee.ContactID=Person.Contact.ContactID WHERE HumanResources.Employee.MaritalStatus='M';

5.SELECT \* FROM HumanResources.EmployeeorderbyHireDate;

**Lab 4** :

SELECT EmployeeID FROM AdventureWorks.HumanResources.Employee WHERE ManagerID IS NOT NULL ORDER BY Title,Birth\_Date;

**Lab 5 :** The Select Command Comparison Operators

1.SELECT Name, Color FROM Production.Productwhere Color='Black';

2.SELECT SafetyStockLevel FROM Production.ProductwhereSafetyStockLevel < 100;

3.SELECT ProductNumber FROM Production.ProductwhereProductNumber LIKE 'BK%';

4.SELECT Name FROM Production.Product WHERE Name LIKE '%Lock%';

5.SELECT Name, Color, Size FROM Production.Product WHERE Size NOT IN ('L','M','null');

**Lab 5** :

SELECT Name,ListPrice,DaysToManufacture,ProductID FROM Production.Product WHERE DaysToManufacture BETWEEN 3 AND 6 ORDER BY ListPrice DESC;

**Lab 6 :** The Select Command Expanded Filtering

1.SELECT Sales.SalesPerson.Bonus,Person.Contact.FirstName,Person.Contact.LastName FROM Sales.SalesPerson CROSS JOIN Person.Contact

WHERE (Sales.SalesPerson.Bonus BETWEEN 1000.00 AND 5000.00) ORDER BY Sales.SalesPerson.Bonus;

2.SELECT TerritoryID,SalesPersonID FROM Sales.SalesPerson WHERE TerritoryID IN(1,2,4);

3.SELECT TOP 10 \* FROM Sales.SalesPerson

4.SELECT TerritoryID,SalesPersonID FROM Sales.SalesPerson WHERE TerritoryID=NULL ORDER BY SalesPersonID DESC;

**Lab 6**:

SELECT TOP (25) PERCENTSalesLastYear,SalesPersonID FROM Sales.SalesPerson WHERE (SalesLastYear IS NOT NULL);

**Lab 7:** The SQL Aggregate Functions

1.SELECT CommissionPct AS AVG,SalesPersonID FROM Sales.SalesPerson

2.SELECT COUNT(Gender) FROM HumanResources.Employee where Gender='M'

3.SELECT max(ListPrice) FROM Production.Product

4.SELECT LEN(Description) FROM Production.ProductDescription

5.SELECT CurrencyCode,Name FROM Sales.Currency WHERE Name LIKE'AB%'

**Lab 7:**

SELECT DATEDIFF(DAY,SellEndDate,SellStartDate) FROM Production.Product where SellEndDate is NOT NULL;

**Lab 8:** The Aggregation and Grouping

1.SELECT Title, MIN(LoginID) AS Login FROM HumanResources.Employee WHERE Title IN('Buyer', 'Recruiter' , 'Stocker') GROUP BY Title;

2.SELECT ProductSubCategoryID, MIN(Name) AS Name, MAX(ListPrice) FROM Production.Product GROUP BY ProductSubCategoryID

HAVING COUNT(ProductSubCategoryID) > 20 ORDER BY Name;

3.SELECT Title, Gender, AVG(VacationHours) FROM HumanResources.Employee GROUP BY Title, Gender WITH ROLLUP;

**Lab 8** :

SELECT ManagerID,COUNT(EmployeeID)

FROM HumanResources.Employee WHERE ManagerID is not NULL GROUP BY ManagerID ;

**Lab 9** : The Multi-Table Queries

1.SELECT Name, SubTotal FROM Purchasing.Vendor INNER JOIN Purchasing.PurchaseOrderHeader ON Vendor.VendorID = PurchaseOrderHeader.VendorID

ORDER BY Name;

2.SELECT ProductSubCategory.Name AS SubCategory,Product.Name AS ProductName FROM Production.ProductSubCategory INNER JOIN Production.Product

ON Production.ProductSubCategory.ProductSubCategoryID = Product.ProductSubCategoryID LEFT OUTER JOIN Sales.SalesOrderDetail

ON Product.ProductID = Sales.SalesOrderDetail.ProductID WHERE SalesOrderDetail.ProductID IS NOT NULL;

**Lab 9**:

SELECT Person.Contact.FirstName FROM Person.Contact INNER JOIN HumanResources.Employee ON Person.Contact.ContactID

= HumanResources.Employee.ContactID AND Person.Contact.ContactID = HumanResources.Employee.ContactID WHERE HumanResources.Employee.EmployeeID IN

(Select HumanResources.Employee.ManagerID from HumanResources.Employee) ORDER BY Person.Contact.FirstName