**TRAINEE NAME – AAYUSH KHANNA**

**TRAINEE TECHNOLOGY – SQL**

**JOINING DATE – 30 JUNE 2021**

**The exercise requires SQL Server AdventureWorks OLTP database which can be found at Codeplex. Download and attach a copy of the database to your server instance. Take some time to appreciate the entire schema of the database, and functions and stored procedures (refer AdventureWorks 2008 OLTP Schema.pdf). Using the AdventureWorks database, perform the following queries.**

**Question 1 : - Display the number of records in the [SalesPerson] table. (Schema(s) involved: Sales)**

**Query 1 :- SELECT count(\*) FROM Sales.SalesPerson;**

**Question 2 :- Select both the FirstName and LastName of records from the Person table where the FirstName begins with the letter ‘B’. (Schema(s) involved: Person)**

**Query 2 :- SELECT FirstName, LastName**

**FROM**

**Person.Person PP**

**WHERE PP.FirstName LIKE 'B%';**

**Question 3:- Select a list of FirstName and LastName for employees where Title is one of Design Engineer, Tool Designer or Marketing Assistant. (Schema(s) involved: HumanResources, Person)**

**Query 3:-** SELECT PP.FirstName , PP.LastName

FROM

Person.Person PP,HumanResources.Employee HRE

WHERE PP.BusinessEntityID = HRE.BusinessEntityID

AND

HRE.JobTitle IN('Design Engineer' , 'Tool Designer','Marketing Assistant');

**Question 4:- Display the Name and Color of the Product with the maximum weight. (Schema(s) involved: Production)**

**Query 4:-** SELECT Name ,Color

FROM

Production.Product PP

WHERE PP.Weight = (SELECT max(PP.Weight)

FROM

Production.Product PP);

**Question 5:- Display Description and MaxQty fields from the SpecialOffer table. Some of the MaxQty values are NULL, in this case display the value 0.00 instead. (Schema(s) involved: Sales)**

**Query 5:- SELECT Description, isNull(MaxQty, 0.0) AS MaxQty FROM Sales.SpecialOffer;**

**Question 6:- Display the overall Average of the [CurrencyRate].[AverageRate] values for the exchange rate ‘USD’ to ‘GBP’ for the year 2005 i.e. FromCurrencyCode = ‘USD’ and ToCurrencyCode = ‘GBP’.**

**Note: The field [CurrencyRate].[AverageRate] is defined as 'Average exchange rate for the day.' (Schema(s) involved: Sales)**

**Query 6:-** SELECT

AVG(SCR.AverageRate) AS 'Average Exchange Rate for the day'

FROM

Sales.CurrencyRate SCR

WHERE SCR.FromCurrencyCode = 'USD'

AND

SCR.ToCurrencyCode='GBP'

AND

SCR.CurrencyRateDate >= '2005-01-01'

AND

SCR.ModifiedDate <='2005-12-31';

**Question 7:- Display the FirstName and LastName of records from the Person table where FirstName contains the letters ‘ss’. Display an additional column with sequential numbers for each row returned beginning at integer 1. (Schema(s) involved: Person)**

**Query 7:-** SELECT

FirstName, LastName

FROM Person.Person PP

WHERE

PP.FirstName LIKE '%ss%';

**Question 8:- Sales people receive various commission rates that belong to 1 of 4 bands. (*Schema(s) involved: Sales*)**

|  |  |
| --- | --- |
| **CommissionPct** | **Commission Band** |
| **0.00** | **Band 0** |
| **Up To 1%** | **Band 1** |
| **Up To 1.5%** | **Band 2** |
| **Greater 1.5%** | **Band 3** |

**Display the [SalesPersonID] with an additional column entitled ‘Commission Band’ indicating the appropriate band as above.**

**Query 8:-**  SELECT SSP.BusinessEntityID as 'SalesPersonID', 'COMMISSION BAND'=

CASE

WHEN SSP.CommissionPct = 0.00 THEN 'Band 0'

WHEN SSP.CommissionPct > 0.00 AND SSP.CommissionPct <= 0.01 THEN 'Band 1'

WHEN SSP.CommissionPct > 0.01 AND SSP.CommissionPct <= 0.015 THEN 'Band 2'

WHEN SSP.CommissionPct > 0.015 THEN 'Band 3'

END

FROM Sales.SalesPerson SSP

ORDER BY SSP.CommissionPct;

**Question 9:- Display the managerial hierarchy from Ruth Ellerbrock (person type – EM) up to CEO Ken Sanchez. Hint: use [uspGetEmployeeManagers] (*Schema(s) involved: [Person], [HumanResources]*)**

**Query 9:-** SELECT

PP.FirstName,

PP.LastName,

HRE.OrganizationLevel

FROM

HumanResources.Employee HRE , Person.Person PP

WHERE

HRE.BusinessEntityID = PP.BusinessEntityID

ORDER BY

HRE.OrganizationLevel desc;

**Question 10:- Display the ProductId of the product with the largest stock level. Hint: Use the Scalar-valued function [dbo]. [UfnGetStock]. (*Schema(s) involved: Production*)**

**Query 10:-** SELECT PPI.ProductID,PPI.Quantity

FROM

Production.ProductInventory PPI

ORDER BY PPI.Quantity desc;