**Assignment-2 Solutions with Output**

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Exercise 1

1 (i)

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

Answer:

SELECT COUNT(\*) AS 'Number of records' FROM [Sales].[SalesPerson];

Output:

Graphical user interface

Description automatically generated

1.(ii)

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

Answer:

SELECT FirstName LastName FROM Person.Person WHERE FirstName LIKE 'B%';

Output:

Table

Description automatically generated

1(iii)

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)

Answer:

select p.FirstName, p.LastName from Person.Person AS p

JOIN HumanResources.Employee AS e ON e.BusinessEntityID=p.BusinessEntityID WHERE e.JobTitle

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

Table

Description automatically generated

1.(IV)

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

Answer:

select Name, Color From Production.Product Where Weight IN (Select MAX(Weight) from Production.Product);

Graphical user interface, application

Description automatically generated

1(V)

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)

Answer:

select Description,COALESCE(MaxQty,0.0) AS MaxQty From sales.SpecialOffer;

Graphical user interface, table

Description automatically generated

1.(vi)

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)

Answer:

select AVG(AverageRate) AS 'Average exchange rate for the day'

from Sales.CurrencyRate where FromCurrencyCode='USD' AND

ToCurrencyCode='GBP' AND

YEAR(CurrencyRateDate)=2005;

Graphical user interface

Description automatically generated

1(vii)

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)

Answer:

select ROW\_NUMBER() over(order by FirstName,LastName) AS 'Sequential Number' ,

FirstName, LastName from Person.Person where FirstName LIKE '%ss%';

Table

Description automatically generated

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

CommissionPct Commission Band

1. 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.

Answer:

Select BusinessEntityID AS 'SalesPersonID',

CASE

When CommissionPct=0.0 then 'BAND 0'

When CommissionPct>0.0 And CommissionPct<=00.01 then 'BAND 1'

When CommissionPct>0.015 AND CommissionPct<=0.01 then 'BAND 2'

WHEN CommissionPct >0.015 then 'BAND 3'

END AS 'Comission Band' from Sales.SalesPerson;

Table, Excel

Description automatically generated

1(ix)

Display the managerial hierarchy from Ruth Ellerbrock (person type – EM) up to CEO Ken Sanchez.

Hint: use [uspGetEmployeeManagers] (Schema(s) involved: [Person], [HumanResources])

Answer:

Declare @id int;

select @id = BusinessEntityID from Person.Person Where FirstName= 'Ruth' AND

LastName ='Ellerbrock' AND PersonType ='EM'

EXEC dbo.uspGetEmployeeManagers @BusinessEntityID=@ID;

Graphical user interface, application

Description automatically generated

1(x)

Display the ProductId of the product with the largest stock level.

Hint: Use the Scalar-valued function [dbo]. [UfnGetStock]. (Schema(s) involved: Production)

select MAX(dbo.ufnGetStock(ProductID)) from Production.Product;

Graphical user interface, application

Description automatically generated