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--Question 1
select DISTINCT pp.firstname + ' ' + pp.lastname as 'Sales Person Name',
t1.TOTALDUE as 'Total Due'
from (
    select ssoh.SalesPersonID, SUM(ssoh.SubTotal) AS "TOTALDUE"
    FROM sales.salesOrderHeader ssoh
    group by ssoh.SalesPersonID
) t1
inner join sales.SalesPerson ssp
on ssp.BusinessEntityID = t1.SalesPersonID
inner join HumanResources.Employee hre
on ssp.BusinessEntityID = hre.BusinessEntityID
inner join person.Person pp
on hre.BusinessEntityID = pp.BusinessEntityID
WHERE pp.PersonType = 'SP';

--question 2
select ppm.name as 'Product Name', pc.name as 'Culture Name', avg(pp.standardcost)
as 'Average Standard Cost'
from production.culture pc
inner join production.ProductModelProductDescriptionCulture ppmppdc
on ppmppdc.CultureID = pc.CultureID
inner join production.productmodel ppm
on ppm.ProductModelID = ppmppdc.ProductModelID
inner join Production.product pp
on pp.ProductModelID = ppm.ProductModelID
group by pc.name, ppm.name
having pc.name = 'English'
and (ppm.name LIKE '%wheel%' OR ppm.name LIKE '%handlebars%')
order by pc.name;

-- question 3
SELECT hrd.Name AS "DepartmentName", COUNT(*) AS 'Number of Employee'
FROM
HumanResources.Department hrd
inner join humanResources.EmployeeDepartmentHistory hredh
ON hredh.DepartmentID = hrd.DepartmentID
inner join HumanResources.Employee hre
on hredh.businessentityID = hre.businessentityID
WHERE hre.CurrentFlag = 1
GROUP BY hrd.Name
Order BY 'number of employee' DESC;

-- question 4
SELECT hrd.Name AS "DepartmentName", AVG(hreph.Rate) AS 'Average Pay Rate'
FROM
HumanResources.Department hrd
inner join humanResources.EmployeeDepartmentHistory hredh
ON hredh.DepartmentID = hrd.DepartmentID
inner join HumanResources.Employee hre
on hredh.businessentityID = hre.businessentityID
inner join HumanResources.EmployeePayHistory hreph
on hreph.BusinessEntityID = hre.BusinessEntityID
GROUP BY hrd.Name
Order BY 'Average Pay Rate' DESC;

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--Question 5 DONE
SELECT t1.NumberOfPeople, t1.PostalCode as 'Zipcode'
FROM (SELECT count(*) AS "NumberOfPeople", pa.PostalCode
FROM Person.person pp
inner join person.BusinessEntity pbe
ON pp.BusinessEntityID = pbe.BusinessEntityID
inner join person.businessEntityAddress pbea
ON pbe.BusinessEntityID = pbea.BusinessEntityId
inner join Person.Address pa
on pbea.AddressId = pa.AddressID
GROUP BY pa.PostalCode) t1
WHERE t1.NumberOfPeople > 50
ORDER BY t1.NumberOfPeople DESC, t1.PostalCode;
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--question 6
select pp.firstname + ' ' + pp.lastname as 'Sales Person Name', ssp.SalesYTD AS
'Amount Of Sales'
from sales.SalesPerson ssp
inner join HumanResources.Employee hre
on ssp.BusinessEntityID = hre.BusinessEntityID
inner join person.Person pp
on hre.BusinessEntityID = pp.BusinessEntityID
WHERE pp.PersonType = 'SP'
AND ssp.SalesYTD < (
    select AVG(ssp.salesYTD) AS "AverageSales"
    FROM sales.salesPerson ssp
);
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-- question 7
SELECT production.product.name AS 'Product Name'
, production.ScrapReason.name AS 'Scraped Reason'
, SUM(production.workOrder.ScrappedQty) AS 'Scrapped Quantity'
FROM Production.Product
INNER JOIN production.WorkOrder
ON Production.WorkOrder.ProductID = Production.Product.ProductID
inner join Production.ScrapReason
ON Production.ScrapReason.ScrapReasonID = Production.WorkOrder.ScrapReasonID
GROUP BY Production.Product.name, Production.ScrapReason.name
HAVING SUM(Production.WorkOrder.scrappedQTY) > 100
ORDER BY 'Scrapped Quantity' DESC;
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--number 8
select psp.Name as 'Province Name', count(*) as 'number of workers for the
Corporate Overlords (i.e Employees)'
from person.StateProvince psp
inner join person.address pa
on psp.StateProvinceID = pa.StateProvinceID
inner join person.BusinessEntityAddress pbea
on pbea.addressID = pa.AddressID
inner join person.BusinessEntity pbe
on pbe.BusinessEntityID = pbea.BusinessEntityID
inner join person.person pp
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on pp.BusinessEntityID = pbe.BusinessEntityID
inner join HumanResources.Employee hre
on hre.BusinessEntityID = pbe.BusinessEntityID
group by psp.name
order by 'number of workers for the Corporate Overlords (i.e Employees)' DESC,
psp.name;

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--number 9
SELECT t1.Name AS "DepartmentName", count(*) AS "Number of Employee over 25 vaction
hours"
FROM (select hrd.Name, vacationHours as 'hours'
from
HumanResources.Department hrd
inner join humanResources.EmployeeDepartmentHistory hredh
ON hredh.DepartmentID = hrd.DepartmentID
inner join HumanResources.Employee hre
on hredh.businessentityID = hre.businessentityID
where VacationHours > 25) t1
group by t1.name
order by 'departmentName';

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--question 10

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select pl.name as 'Location Name', sum(ppi.quantity) as 'Total Quantity'
from production.ProductInventory ppi
inner join production.location pl
on pl.LocationID = ppi.LocationID
group by pl.name
having sum(ppi.quantity) >= 5000
order by 'Total Quantity' DESC, pl.name;

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