

USE adventureworks;

# Task 1: Write a SELECT statement that lists the customerid along with their account number, type, the city lives in and their postalcode.

```
SELECT c.customerID, c.AccountNumber, c.CustomerType, a.City, a.PostalCode FROM
customer c
JOIN customeraddress ca
ON c.CustomerID = ca.CustomerID
JOIN address a
ON ca.AddressID = a.AddressID;
```

# Task 2: Write a SELECT statement that lists the 20 most recently launched products, their name and colour

```
SELECT p.name, p.color, p.ProductID
FROM product p
ORDER BY p.SellStartDate DESC
LIMIT 20;
```

# Task 3: Write a SELECT statement that shows how many products are on each shelf in 2/5/98, broken down by product category and subcategory

```
SELECT count(pi.Quantity), pc.Name as category, psc.name as subcategory,
pi.shelf, pi.ModifiedDate
FROM productinventory pi
JOIN product p
ON pi.ProductID = p.ProductID
LEFT JOIN productsubcategory psc
ON p.ProductSubcategoryID = psc.ProductSubcategoryID
LEFT JOIN productcategory pc
ON psc.ProductCategoryID = pc.ProductCategoryID
WHERE DATE_FORMAT(pi.ModifiedDate, "%d/%m/%Y") = '02/05/1998'
GROUP BY pi.shelf;
```

# Task 4: I am trying to track down a vendor email address... his name is Stuart and he works at G&K Bicycle Corp. Can you help?

```
SELECT v.Name, c.EmailAddress, c.FirstName, c.LastName FROM vendor v
JOIN vendorcontact vc
ON v.VendorID = vc.VendorID
JOIN contact c
ON vc.ContactID = c.ContactID
WHERE v.Name LIKE "%Bicycle Corp." and c.FirstName LIKE "%Stuart%";
```

#TASK 5: What's the total sales tax amount for sales to Germany? What's the top region in Germany by sales tax?

# -> sales tax amount for sales in Germany

```
SELECT st.Name, sum(soh.TaxAmt) as total_tax FROM salesorderheader soh
JOIN salesterritory st
ON soh.TerritoryID = st.TerritoryID
WHERE st.Name = "Germany"
```

```
GROUP BY st.Name;
```

```
# -> What's the top region in Germany by sales tax?
```

```
SELECT sum(soh.TaxAmt) as total_tax, sp.Name, sp.CountryRegionCode FROM
stateprovince sp
JOIN address a
ON sp.StateProvinceID = a.StateProvinceID
JOIN customeraddress ca
ON a.AddressID = ca.AddressID
JOIN salesorderheader soh
ON ca.CustomerID = soh.CustomerID
WHERE sp.CountryRegionCode = "DE"
GROUP BY sp.Name
ORDER BY sum(soh.TaxAmt) DESC;
```

```
#Task6: 6. Summarise the distinct # transactions by month
```

```
SELECT count(trh.TransactionID) as Total_Transaction,
DATE_FORMAT(trh.TransactionDate, "%m.%Y") as "Month_Year" FROM
transactionhistory trh
GROUP BY DATE_FORMAT(trh.TransactionDate, "%m.%Y");
```

```
#Task 7: Which ( if any) of the sales people exceeded their sales quota this
year and last year?
```

```
SELECT sp.SalesPersonID,
CASE
    WHEN (sp.SalesYTD > sp.SalesQuota and sp.SalesLastYear > sph.SalesQuota)
THEN "exceeded both years"
    WHEN (sp.SalesYTD > sp.SalesQuota or sp.SalesLastYear > sph.SalesQuota)
THEN "exceeded both years"
    ELSE "no exceeded"
END as "exceeded sales quota"
FROM salesperson sp
JOIN salespersonquotahistory sph
ON sp.SalesPersonID = sph.SalesPersonID;
```

```
#Task 8: Do all products in the inventory have photos in the database and a text
product descriptions?
```

```
SELECT p.ProductID, pd.Description, pp.LargePhotoFileName, IF((pd.Description
Like "%???" OR pp.LargePhotoFileName Like "%no%"),"not all products have a
photo and a description", "yes, all products have a photo and a description")
FROM product p
JOIN productinventory pi
ON p.ProductID = pi.ProductID
JOIN productproductphoto ppp
ON pi.ProductID = ppp.ProductID
JOIN productphoto pp
ON ppp.ProductPhotoID = pp.ProductPhotoID
JOIN productmodel pm
ON p.ProductModelID = pm.ProductModelID
JOIN productmodelproductdescriptionculture pmdc
```

```
ON p.ProductModelID = pmdc.ProductModelID
JOIN productdescription pd
ON pmdc.ProductDescriptionID = pd.ProductDescriptionID;
```

#Task 9: What's the average unit price of each product name on purchase orders which were not fully, but at least partially rejected?

```
SELECT * FROM adventureworks.product;
```

#Task 10: How many engineers are on the employee list? Have they taken any sickleave?

```
CREATE TEMPORARY TABLE ENGINEER_NUMBERS
SELECT e.EmployeeID, If(e.Title like "%Engineer%", "Yes engineer", "NO
engineer") as "Engineer" FROM employee e;
```

```
SELECT Engineer, count(Engineer) From ENGINEER_NUMBERS
GROUP BY ENGINEER
```

#Task 11: How many days difference on average between the planned and actual end date of workorders in the painting stages?