

## Function and Expression Problem Set (AdventureWorks2014)

1. Write a query that returns data from the Person.Address table in this format:

AddressLine1 (City PostalCode)

Example data: #500-75 O'Connor Street (Ottawa K4B 1S2)

2. Write a query using the Production.Product table displaying the ProductID, Color, and Name columns. If the Color value is NULL, replace the Color with "No Color."
3. Write a query that displays the first 10 characters of the AddressLine1 column of the Person.Address table.
4. Write a query displaying the first and last names from the Person.Person table all in upper case.
5. Write a query that calculates the number of days between the date an order was placed (OrderDate) and the day it was shipped (ShipDate). Return the SalesOrderID, OrderDate, and ShipDate in the results.
6. Write a query that adds six months to the OrderDate column of the Sales.SalesOrderHeader table.
7. Write a query that returns the Year and Month of the orders from the Sales.SalesOrderHeader table along with the SalesOrderID and OrderDate. Make sure that the month name is returned instead of the month number.

1. Write a query that returns data from the Person.Address table in this format:

AddressLine1 (City PostalCode)

Example data: #500-75 O'Connor Street (Ottawa K4B 1S2)

```
SELECT AddressLine1 + ' (' + City + ' ' + PostalCode + ')' AS FormattedAddress
FROM Person.Address;
```

```
SELECT CONCAT(AddressLine1, ' (' , City , ' ' , PostalCode , ')') AS FormattedAddress
FROM Person.Address;
```

2. Write a query using the Production.Product table displaying the ProductID, Color, and Name columns. If the Color value is NULL, replace the Color with "No Color."

```
SELECT ProductID, ISNULL(Color,'No Color') AS Color, Name
FROM Production.Product;
```

```
SELECT ProductID, COALESCE(Color,'No Color') AS Color, Name
FROM Production.Product;
```

3. Write a query that returns the first 10 characters of the AddressLine1 column of the Person.Address table.

```
SELECT LEFT(AddressLine1, 10) AS First10Address
FROM Person.Address;
```

```
SELECT SUBSTRING(AddressLine1,1,10) AS First10Address
FROM Person.Address;
```

4. Write a query displaying the first and last names from the Person.Person table all in upper case.

```
SELECT UPPER(FirstName) AS FirstName, UPPER(LastName) AS LastName
FROM Person.Person;
```

5. Write a query that calculates the number of days between the date an order was placed (OrderDate) and the day it was shipped (ShipDate). Return the SalesOrderID, OrderDate, and ShipDate in the results.

```
SELECT SalesOrderID, OrderDate, ShipDate,
       DATEDIFF(day,OrderDate,ShipDate) AS DaysUntilShipped
FROM Sales.SalesOrderHeader;
```

6. Write a query that adds six months to the OrderDate column of the Sales.SalesOrderHeader table. Include the SalesOrderID and OrderDate columns.

```
SELECT SalesOrderID, OrderDate, DATEADD(MONTH,6,OrderDate) SixMonths  
FROM Sales.SalesOrderHeader;
```

7. Write a query that returns the Year and Month of the orders from the Sales.SalesOrderHeader table along with the SalesOrderID and OrderDate. Make sure that the month name is returned instead of the month number.

```
SELECT SalesOrderID, OrderDate, YEAR(OrderDate) AS OrderYear,  
       DATENAME(month,OrderDate) AS OrderMonth  
FROM Sales.SalesOrderHeader;
```