**Database Design - Functions Exercises – Expected SQL**

**3.1 Text Functions**

**3.1.1 LEFT / RIGHT / UPPER / LOWER Functions**

SELECT

dept\_name,

LEFT(dept\_name,3) AS 'First Three Characters',

RIGHT(dept\_name,3) AS 'Last Three Characters',

SUBSTRING(dept\_name,5,2) AS '5th and 6th Characters',

UPPER(dept\_name) AS 'Upper Case',

LOWER(dept\_name) AS 'Lower Case'

FROM dept;

**-- 3.1.2 INSTR / LOCATE Functions**

SELECT

dept\_name,

CHARINDEX('i',dept\_name) AS 'Position of First "i"',

CHARINDEX('systems',dept\_name) AS 'Starting Position of "systems"'

FROM dept;

**-- 3.2 Date / Time Functions**

**-- 3.2.1 Date Functions**

SELECT

order\_date,

CAST(order\_date AS DATE) AS 'Date of Order',

CONCAT(LEFT(DATENAME(WEEKDAY,order\_date),3),' ',DATEPART(mm,order\_date),' ',

LEFT(DATENAME(MONTH,order\_date),3),' ',DATEPART(yyyy,order\_date)) AS

'Formatted Date'

FROM

sale;

**-- 3.2.2 Time Functions**

SELECT

order\_date,

CAST(order\_date AS TIME) AS 'Time of Order',

CONCAT(DATENAME(hh,order\_date),':',DATENAME(mi,order\_date),':',DATENAME(s,order\_dat

e)) AS 'Formated Time'

FROM

sale;

**-- 3.2.3 Current Date / Time Functions**

SELECT

order\_date,

CAST(GETDATE() AS INT) AS 'Now',

CAST(GETUTCDATE() AS INT) AS 'Sysdate',

CAST(GETUTCDATE() AS DATE) AS 'UTC\_Date',

CAST(GETUTCDATE() AS TIME) AS 'UTC\_Time'

FROM

sale;

**-- 3.2.4 Date / Time Calculation Functions**

SELECT

GETDATE(),

order\_date,

DATEADD(WEEK,1,order\_date) AS 'Order Date + 1 Week',

DATEADD(HOUR,-1,order\_date) AS 'Order Date - 1 Hour',

DATEDIFF(hh,order\_date,'2017-01-20 12:00:00') AS 'Time Since Order'

FROM

sale;

**-- 3.3 Conversion Functions**

**-- 3.3.1 CAST / CONVERT / ROUND Functions**

SELECT

order\_date,

CAST(order\_date AS TIME) AS 'CAST Order Time',

CONVERT(TIME,order\_date) AS 'CONVERT Order Time',

order\_value,

CAST(order\_value AS CHAR(20)) AS 'CAST Order Value as Text',

CONVERT(CHAR(20),order\_value) AS 'CONVERT Order Value as Text',

ROUND(order\_value,2) AS 'ROUND Order Value to 2 DP'

FROM

sale;

**-- 3.4 NULL Functions**

**-- 3.4.1 ISNULL / COALESCE Functions**

SELECT

emp\_no,

notes,

ISNULL(notes,'No Notes specifed') AS 'NULL Notes',

COALESCE(notes,'No Notes Specified') AS 'COALESCE Notes'

FROM

salesperson;

**-- 3.5 Nested Functions**

**-- 3.5.1 Nested Functions**

SELECT

order\_date,

GETDATE() AS 'GetDate',

DATEPART(mm,GETDATE()) AS 'Minute',

ROUND(DATEPART(mm,GETDATE()),-1) AS 'Nearest 10 Minutes'

FROM

sale;