TSQL Homework 02c

Chapter 02c, T-SQL Query Fundamentals

# **Readings**

Read chapter 2, pages 73 – 93 in the *T-SQL Query Fundamentals* book.

# **Homework questions**

1. List the date/time types in T-SQL.
   * DATETIME-SMALLDATETIME-DATE—TIME-DATETIME2-DATETIME2-DATETIMEOFFSET
2. How do you express a date/time literal in T-SQL?
   * T-SQL doesn’t express it literal, express it a different type that can be converted explicitly or implicitly, best practice is to use a character of strings. Implicit >‘20160202’—explicit WHERE orderdate = CAST('20160212' AS DATE);.
3. What is the setting DATEFORMAT used for?
   * T-SQL is language dependent; it is used for determining how to convert literals. Recommended to not change.
4. Write a T-SQL snippet changing the date format to German. Read the documentation on how to do this.
   * SET LANGUAGE German;
   * Select cast(‘20/12/2016’ as DATE);
5. What is the difference between CAST(), CONVERT(), and PARSE()?
   * Parse is a lot like convert but not recommended.
   * Cast is used to convert an input value to some target type
     + SELECT CAST('20160212' AS DATE);
   * Convert is explicity convert the string of charter-string literal to the requested data type
     + SELECT CONVERT(DATE, '02/12/2016', 101);
6. What function returns the current date? This is very useful in a table that maintains a log of events, such as user logins.
   * GETDATE
7. How do you add one day to the current date? Add one week? Add one month? Add one year?
   * *DATEADD(YEAR,1,’20160202’);*
   * *DATEADD(MONTH,1,’20160202’);*
   * *DATEADD(WEEK,1,’20160202’);*
   * *DATEADD(DAY,1,’20160202’);*
8. Write a SQL snippet to return the number of years between your birth date and today’s date.
   * SELECT DATEDIFF(DAY,’19870225’,’NOW’);
9. How do you check a string literal to see if it represents a valid date?
   * ISDATE function
10. What does EOMONTH() do? Give an example of why this might be very useful.
    * Excepts an end month and date value respective end of month date as a date type. PAY
11. Payments are due exactly 30 days from the date of the last function. Write a select query that calculates the date of the next payment. Pretend we want to update a column in a database that contains the date of the next payment. We will do this when we write UPDATE queries.
    * Select payments from sales where payments = EOMONTH(payments);
12. Suppose your son or daughter wants to run a query every day that tells them the number of days until their 16th birthday. Write a select query that does this.
    * SELECT DATEDIFF(DAY,’19870225’,’NOW’);