# **MS SQL Server Coding Standards**

```
-- Revision History
-- John McKay, 2004.09.07: Created
-- Meyer Tanuan, 2022.01.18: Updated for MS SQL Server
```

### **Identifiers**

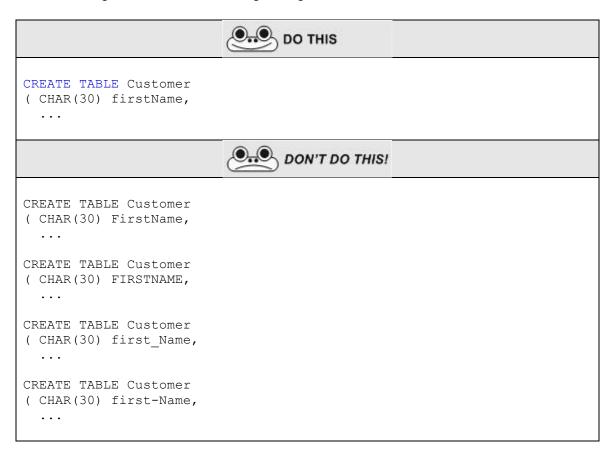
#### **SQL1 Table Names**

Use meaningful singular nouns in Pascal case (i.e., Upper Camel case) for table names.



### **SQL2 Column Names**

When creating a new table, use meaningful singular nouns in Camel case for column names.

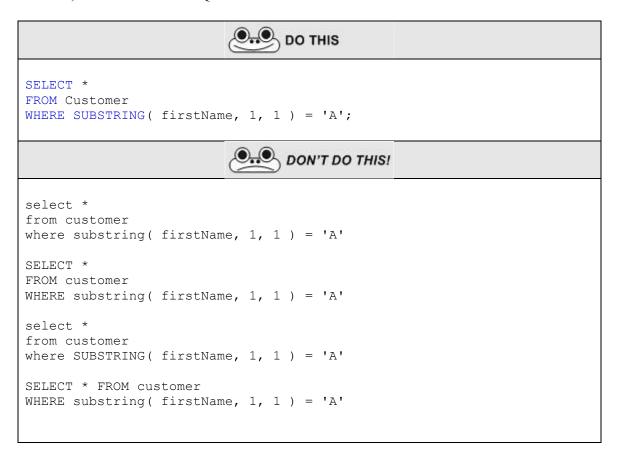


### **SQL3 Keywords and Function Names**

Use all upper case for SQL keywords and function names. Also, try as much as possible to put SQL keywords into its own line, see the examples below. Indent where you feel it will make the code clearer to read.

When querying a table, use meaningful singular nouns in Camel case for column names. The only exception is when the existing table does not follow the Camel case convention for column names (e.g., existing column is FirstName instead of firstName).

Add a ";" at the end of each SQL statement.



#### **Comments**

#### **SQL4 Header Comments**

Begin all SQL script files with a header comment similar to the one shown below.

```
-- Example.sql
-- Assignment 1
--
-- Revision History
-- John McKay, 1P5, 2004.09.07: Created
-- Meyer Tanuan, S1, 2022.01.18: Updated
```

### **SQL5 Output Messages**

Almost each SQL statement will produce some kind of output, it most likely will be some type of data. In some cases just a few lines of the output is necessary other times you may have to do a screenshot, use your best judgement if I don't tell you exactly what to print.

### **SQL6 Implementation Comments**

Provide a brief comment that explains the purpose of each SQL statement in a script.

```
# Retrieve . . .
SELECT . . .

# Add . . .
INSERT . . .

# Change . . .
UPDATE . . .

# Delete . . .
DELETE . . .
```

## White Space and Alignment

### **SQL7 Formatting**

Start each clause on a new line.

Break up lines that exceed 80 characters in length. Break up long column lists on comma boundaries. Again, indent (default of 4 white spaces) as you see fit.

```
# Implementation comment ...

SELECT id, storeNumber, payTypeCode, payAmount

, title, supervisorId

FROM Employee

WHERE payTypeCode = 'S'

AND storeNumber = 1;
```

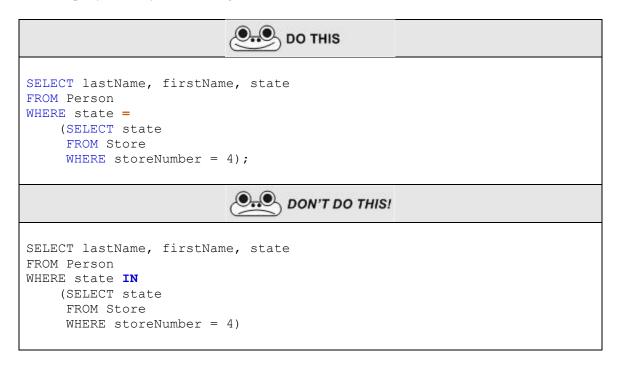
Align the code so that subquery clauses are indented to the right of the enclosing query. Left align the major clauses of each subquery, similar to **SQL3** and **SQL7**.

```
DO THIS
SELECT lastName, firstName, state
FROM Person
WHERE state =
   (SELECT state
    FROM Store
    WHERE storeNumber = 4);
SELECT DISTINCT description
FROM Product
WHERE productId IN
   (SELECT productId
    FROM orderItem
    WHERE invoiceNumber IN
         (SELECT invoiceNumber
          FROM orderHeader
          WHERE storeNumber = 3)
ORDER BY description;
                                DON'T DO THIS!
SELECT lastName, firstName, state
FROM Person
WHERE state = (SELECT state
   FROM Store
   WHERE storeNumber = 4)
```

# **General Coding Practices**

# SQL8 Subquery IN and =

If a subquery can only return a single value, use = rather than IN.





These standards apply to SQL in programs as well as SQL in script files, except that the second and subsequent lines do not need to be indented in programs.

```
/* C#.NET */
string payTypeCode = "S";
int storeNumber = 1;

StringBuilder builder = new StringBuilder();
builder.Append("SELECT id, storeNumber, payTypeCode,payAmount");
builder.Append(",title, supervisorId");
builder.Append("FROM Employee");
builder.Append("WHERE payTypeCode = \" + payTypeCode + \"'");
builder.Append("AND storeNumber = \" + storeNumber);
...
```