

# Coding Standards for SQL

## Version 1.0.2

### Naming Conventions

Tables created from entities should be plural.  
Views should be suffixed with \_VW.

#### Constraints

A primary key constraint should be named Table\_PK.  
A foreign key constraint should be named Table\_Column\_FK where Column is the column in Table that references a column in another table.  
A unique constraint should be named Table\_Column\_U.  
An index constraint should be named Table\_Column\_IDX.

If more than one column is involved in a constraint list each column separated by an underscore.

### Formatting

SQL keywords should be either all caps or initial caps. Either choice is acceptable but within a document a consistent choice must be used. For every line but the first and last in a SQL statement indent with a tab equal to two spaces. Parenthesis that span multiple lines must be aligned.

```
CREATE TABLE People
(
  PersonID INT NOT NULL AUTO_INCREMENT,
  FName VARBINARY(50),
  LName VARBINARY(50),
  Login VARBINARY(20) NOT NULL,
  CONSTRAINT People_PK PRIMARY KEY (PersonID),
  CONSTRAINT People_Login_U UNIQUE (Login)
) ENGINE=INNODB;
```

For a select statement, the Select, From, and Where need to be on separate lines. Indent the code of the where clause two spaces. Logical operators should start a new line.

```
SELECT FName, LName
FROM People
WHERE
  PersonID > 1;

SELECT FName, LName
FROM People, Professors
WHERE
  People.PersonID=Professors.ProfID
  AND Rank="Full";
```

```

SELECT FName, LName
FROM People LEFT JOIN Professors ON
    (People.PersonID=Professors.ProfID)
WHERE
    Rank="Full";

SELECT *
FROM Students, CurrentlyEnrolled, People
WHERE
    (Students.StudentID=CurrentlyEnrolled.StudentID)
    AND (Students.StudentID = People.PersonID)
    AND (FName != "Bart" or LName != "Simpson")
    AND EXISTS (
        SELECT *
        FROM CurrentlyEnrolled AS BSClass
        WHERE
            (CurrentlyEnrolled.CourseID=BSClass.CourseID)
            AND BSClass.StudentID=5 -- Bart Simpson
    );

```

Insert statements may be written on one line if the line does not need to be wrapped. Recommended breakpoints are after VALUES and after a comma.

```

INSERT INTO People (FName, LName, Login) VALUES
    ("Chadd", "Williams", "chadd");

```

For an update statement, the Update, Set, and Where need to be on separate lines. Indent the code of the where clause two spaces. Logical operators should start a new line.

```

UPDATE People
SET FName = 'Chadd'
WHERE
    FName = 'Chad';

```

### Line Length

No line should go past column 78.

### Wrapping Lines

It is preferred to break a line before a ( or after a ), at a logical operator or after a comma.

**Beware! Copy and pasting the following comments from the PDF file are likely to add unseen, incorrect characters which give SQL errors.**

### **File Header Comment**

```
-----  
-- File name: CreateDatabase.sql  
-- Author:  
-- Joe Bloggs  
-- Date: 9/25/11  
-- Class: CS445  
-- Assignment: Assignment One - Software Company  
-- Purpose: To create the database tables for Assignment One  
-----
```

### **Query Header**

Each SQL Query (Select statement) should have a query header to describe the function of the query.

```
-----  
-- Query description: To retrieve all professors that do not teach a class  
-- Output: FName, LName  
-- Sorted: none  
-----
```

### **Printing**

Print using a Courier font, of size 8 to 10. Choose a font size to avoid wrapping lines. Assignments need to be printed in color with syntax highlighting and double sided.