

Coding Standards for SQL

Version 1.0.1

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.

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.