**SQL Handbook**

**Making a new database (make sure you have admin privileges, first):**

CREATE DATABASE DatabaseName;

**List databases:**

SHOW DATABASES;

**Delete database:**

DROP DATABASE DatabaseName;

**Create datatable:**

CREATE TABLE table\_name (

column1 dataype,

column2 datatype

);

You may have special attributes (constraints) for each column. One may be the index or primary key, for example.

**Some common constraints:**

**PRIMARY KEY**: All datatables are required to have just one of these. The column marked as PRIMARY KEY is the index for that row of data. Entries in this column are unique and never null. *When also working with C#, you need to name this column by convention: ID, Id, or for example: EmployeeID (but you should always adhere to this naming convention, even when using other programming languages).*

**FOREIGN KEY**: The column matches the primary key column in another datatable (helps you link tables).

**NOT NULL**: Whenever a new row is added, the entry in this column must be a non-null value.

**UNIQUE**: The entry in this column cannot have the same value as another entry in this same column.

**INDEX**: Information from this column can be fetched faster because it is given a unique index. *Indexing speeds up reading operations, but can slightly slow write (creating, updating, or deleting) operations because the database also has to create, update, or delete the index value as well. Use them sparingly.*

Example table with constraints:

CREATE TABLE table\_name (

column1 dataype PRIMARY KEY,

column2 datatype

);