Notes: SQL Cheat Sheet

Navigation

'Show Databases' can be used to view the databases available.

'Show Tables' can be used to view the tables in a database.

'Show Columns in table' can be used to view the columns in a table.

Datatypes

Text

There are three types of text in SQL Char, Varchar and Text.

Char holds a single character; Varchar can hold up to 255 characters and Text holds an almost unlimited number of characters.

Numeric types

Int - Whole numbers. There are variations of Ints such as TinyInts and Big Ints depending on the memory footprint appropriate.

Float - Decimal numbers. The user can specify the number of decimal digits.

Double- Decimal numbers. The user can specify the number of decimal digits.

BOOLEAN - True or false

Date Types

There are a number of date datatypes such as Data, Timestamp and Year available.

Creation

A table can be created by specifying the required columns like so:

```
CREATE TABLE IF NOT EXISTS sellers (
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  name TEXT NOT NULL
);
```

The primary key sets the key which used by the database for indexing the data, multiple columns can compose the primary key.

Using: Foreign Key (id) References table(id)

we can add a constraint to specify we are refencing a column of another table. This increases data integrity.

Tables can be renamed using : Alter Table table_name RENAME new_name

Columns can be added using: Alter Table table_name Add column_name

Columns can be removed using: Alter Table table_name Add Drop column_name

Primary keys can be added using: Alter Table table_name Add Primary Key column_name

Primary keys can be added using: Alter Table table_name Add References table(column_name) References table(id)

Manipulation

Tables can be dropped using: Drop Table table_name

Databases can be dropped using: Drop Database name

Data can be inserted using an insert query like so:

INSERT INTO basket_items (customer_id,supply_id) VALUES ('id', 1);

Selecting data can be acheived using a select query like so:

SELECT date, address, id, customer_id FROM store_orders WHERE id = 1

Adding: 'Order by column_name' to the end of a query allows us to order the select results

Aggregate functions can be used to do analysis on data, example: Select MAX(salary) As Max_Salary From Employees.

Selecting data from multiple tables

There are two ways to select data from multiple tables, using JOINS or using SUB QUERIES

Joins:

```
SELECT Orders.OrderID, Customers.CustomerName, Orders.OrderDate

FROM Orders

INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID;
```

Sub Queries:

```
SELECT column_name [, column_name ]

FROM   table1 [, table2 ]

WHERE  column_name OPERATOR

  (SELECT column_name [, column_name ]

  FROM table1 [, table2 ]

  [WHERE])
```