# Introduction to MySQL

About SQL and MySQL

# Create

Create schemas/databases

Create tables

Load data into tables

# Read

Select statements

# Update

Update records

# Delete

Deleting information, records, tables

CREATE TABLE table name (

Column name variable type NOT NULL AUTO\_INCREMENT,

Column name variable type,

PRIMARY KEY (column name));

LOAD DATA LOCAL INFILE ‘absolute path to CSV file, escaping all backslashes’

INTO TABLE table name

FIELDS TERMINATED BY ‘field delimeter’

ENCLOSED BY ‘field enclosing marks, usually quotations’

LINES TERMINATED BY ‘record delimeter’

IGNORE 1 LINES # if file contains headers

(@field1, @field2, @field3, @field4) # only needed if not loading all fields or fields not in same order in source data and table

SET column name=@field1, column name=@field3; # Field2 and field4 values won’t be imported

Note: @ signals variable name

Inner join:

SELECT

Table1.field,

AVG(table.field)

FROM table1

JOIN table2 ON table1.field=table2.field # can be repeated for multiple joins in a single query

WHERE table.field LIKE ‘string to match where % is a multi-character wildcard’

GROUP BY table.field #required if an aggregate function like AVG is used

ORDER BY table.field

AS is for aliases

INSERT INTO table name (field1, field2) #only required when not inserting into all fields

VALUES (first field value, second filed value);

UPDATE table name SET field = REPLACE(field, ‘old value’, ‘new value);

DELETE is the same as select, but instead of having SELECT and field names, it has DELETE

RLIKE allows for matching with regexes

SELECT

subquery.field1 AS ‘display name’,

table2.field2 AS ‘display name’,

SUM(an aggregated column)

FROM (SELECT field1, field2, SUM(field3) AS sum FROM table1 GROUP BY field1, field2) AS subquery

JOIN table2

ON table2.field1 = CASE # works as if-else statement

WHEN subquery.field = x THEN a value in table2.field1

WHEN subquery.field = y THEN a value in table2.field1

ELSE a value in table2.field1 END

GROUP BY non-aggregated columns;