CODE: Inserting Data

Section 4, Lecture 43

Inserting Data

The "formula":

```
INSERT INTO table_name(column_name) VALUES (data);
```

For example:

```
INSERT INTO cats(name, age) VALUES ('Jetson', 7);
```

CODE: Super Quick Intro To SELECT

Section 4, Lecture 45

```
SELECT * FROM cats;
```

CODE: Multiple Insert

Section 4, Lecture 47

```
INSERT INTO table_name
            (column_name, column_name)
VALUES      (value, value),
            (value, value),
            (value, value);
```

CODE: INSERT Challenges Solution

Section 4, Lecture 50

INSERT Challenge Solution Code

```
CREATE TABLE people
  (
    first_name VARCHAR(20),
    last_name VARCHAR(20),
    age INT
  );

INSERT INTO people(first_name, last_name, age)
VALUES ('Tina', 'Belcher', 13);

INSERT INTO people(age, last_name, first_name)
VALUES (42, 'Belcher', 'Bob');

INSERT INTO people(first_name, last_name, age)
VALUES('Linda', 'Belcher', 45)
  ,('Phillip', 'Frond', 38)
  ,('Calvin', 'Fischoeder', 70);
```

```
DROP TABLE people;
```

```
SELECT * FROM people;
```

```
show tables;
```

CODE: MySQL Warnings

Section 4, Lecture 52

MySQL Warnings Code

```
DESC cats;
```

Try Inserting a cat with a super long name:

```
INSERT INTO cats(name, age)
VALUES('This is some text blah blah blah blah blah text text text something about cats lalala
lal meowwwwwwwwww', 10);
```

Then view the warning:

```
SHOW WARNINGS;
```

Try inserting a cat with incorrect data types:

```
INSERT INTO cats(name, age) VALUES('Lima',
 'dsfasdfdas');
```

Then view the warning:

```
SHOW WARNINGS;
```

CODE: NULL and NOT NULL

Section 4, Lecture 54

NULL and NOT NULL Code

Try inserting a cat without an age:

```
INSERT INTO cats(name) VALUES('Alabama');
```

```
SELECT * FROM cats;
```

Try inserting a nameless and ageless cat:

```
INSERT INTO cats() VALUES();
```

Define a new cats2 table with NOT NULL constraints:

```
CREATE TABLE cats2
  (
    name VARCHAR(100) NOT NULL,
    age INT NOT NULL
  );
```

```
DESC cats2;
```

Now try inserting an ageless cat:

```
INSERT INTO cats2(name) VALUES('Texas');
```

View the new warnings:

```
SHOW WARNINGS;
```

```
SELECT * FROM cats2;
```

Do the same for a nameless cat:

```
INSERT INTO cats2(age) VALUES(7);
```

```
SHOW WARNINGS;
```

CODE: Setting Default Values

Section 4, Lecture 56

CODE: Setting Default Values

Define a table with a DEFAULT name specified:

```
CREATE TABLE cats3
  (
    name VARCHAR(20) DEFAULT 'no name provided',
    age INT DEFAULT 99
  );
```

Notice the change when you describe the table:

`DESC cats3;`

Insert a cat without a name:

`INSERT INTO cats3(age) VALUES(13);`

Or a nameless, ageless cat:

`INSERT INTO cats3() VALUES();`

Combine NOT NULL and DEFAULT:

```
CREATE TABLE cats4
  (
    name VARCHAR(20) NOT NULL DEFAULT ‘unnamed’,
    age INT NOT NULL DEFAULT 99
  );
```

Notice The Difference:

```
INSERT INTO cats() VALUES();

SELECT * FROM cats;

INSERT INTO cats3() VALUES();

SELECT * FROM cats3;

INSERT INTO cats3(name, age) VALUES('Montana', NULL);

SELECT * FROM cats3;
INSERT INTO cats4(name, age) VALUES('Cali', NULL);
```

CODE: A Primer on Primary Keys

Section 4, Lecture 58

CODE: Primary Keys

Define a table with a PRIMARY KEY constraint:

```
CREATE TABLE unique_cats
  (
    cat_id INT NOT NULL,
    name VARCHAR(100),
    age INT,
    PRIMARY KEY (cat_id)
  );
```

```
DESC unique_cats;
```

Insert some new cats:

```
INSERT INTO unique_cats(cat_id, name, age) VALUES(1, 'Fred', 23);

INSERT INTO unique_cats(cat_id, name, age) VALUES(2, 'Louise', 3);

INSERT INTO unique_cats(cat_id, name, age) VALUES(1, 'James', 3);
```

Notice what happens:

```
SELECT * FROM unique_cats;
```

Adding in AUTO_INCREMENT:

```
CREATE TABLE unique_cats2 (
    cat_id INT NOT NULL AUTO_INCREMENT,
    name VARCHAR(100),
    age INT,
    PRIMARY KEY (cat_id)
);
```

INSERT a couple new cats:

```
INSERT INTO unique_cats2(name, age) VALUES('Skippy', 4);
INSERT INTO unique_cats2(name, age) VALUES('Jiff', 3);
INSERT INTO unique_cats2(name, age) VALUES('Jiff', 3);
INSERT INTO unique_cats2(name, age) VALUES('Jiff', 3);
INSERT INTO unique_cats2(name, age) VALUES('Skippy', 4);
```

Notice the difference:

```
SELECT * FROM unique_cats2;
```

CODE: Table Constraints Exercise Solution

Section 4, Lecture 61

Table Constraints Exercise Solution

Defining The employees table:

```
CREATE TABLE employees (
    id INT AUTO_INCREMENT NOT NULL,
    first_name VARCHAR(255) NOT NULL,
    last_name VARCHAR(255) NOT NULL,
    middle_name VARCHAR(255),
    age INT NOT NULL,
    current_status VARCHAR(255) NOT NULL DEFAULT 'employed',
    PRIMARY KEY(id)
);
```

Another way of defining a primary key:

```
CREATE TABLE employees (
    id INT AUTO_INCREMENT NOT NULL PRIMARY KEY,
    first_name VARCHAR(255) NOT NULL,
    last_name VARCHAR(255) NOT NULL,
    middle_name VARCHAR(255),
    age INT NOT NULL,
    current_status VARCHAR(255) NOT NULL DEFAULT 'employed'
);
```

A test INSERT:

```
INSERT INTO employees(first_name, last_name, age) VALUES
('Dora', 'Smith', 58);
```