

1 Creating and Updating Tables

Read the description of creating a table here:

<http://www.mysqltutorial.org/mysql-create-table/>

Pay particular attention to the **default** and **auto increment** commands.

```
CREATE TABLE table_name(column_name1 type1, column_name2 type2, ...);
```

Let's create a new table called **accounts** that contains a persons ID, **name**, **address** and **phone**.

```
CREATE TABLE account(ID VARCHAR(5), name VARCHAR(20) NOT NULL, address VARCHAR(50),
phone CHAR(12));
```

And now let's insert a sample row. The command to insert values are:

```
INSERT INTO table_name VALUES (value1, value2, ..., valuen);
```

OR

```
INSERT INTO table_name (col1, col2, ..., coln) VALUES (value1, value2, ..., valuen);
```

OR

```
INSERT INTO table_name SELECT QUERY
```

```
INSERT INTO account VALUES ('11111', 'Anna Bretscher', '1265 Military Trail, Toronto',
'416-978-7572');
```

Try DROping this table using the **DROP table name** command.

```
DROP account;
```

2 Insert

Read the section on **INSERT**:

<http://www.mysqltutorial.org/mysql-insert-statement.aspx>

Insert into the **student** table a new student who studies 'Music', has ID '99999', name 'Star' and 150 credits.

```
INSERT INTO student VALUES('99999', 'Star', 'Music', 150);
```

Now we can try inserting into the **instructor** table using an **INSERT** with **SELECT** statement. Insert into the table **instructor** all those students in the music department with at least 144 total credits. You may assume the initial salary for such a new instructor is \$18000.

```

INSERT INTO instructor
SELECT ID, name, dept_name, 18000
FROM student
WHERE dept_name='Music' AND tot_cred > 144;

```

3 Update

Again read the tutorial on UPDATE.

<http://www.mysqltutorial.org/mysql-update-data.aspx>

We can use UPDATE to give the instructors a 5% pay raise using the UPDATE command.

```

UPDATE instructor
SET salary = salary*1.05;

```

Increase the salary by 5% for all instructors whose salary is less than \$60,000.

```

UPDATE instructor
SET salary = salary*1.05
WHERE salary < 60000; Increase the salary by 5% for all instructors whose salary is less than or
equal to $60,000 and by 3% if the salary is greater than $60000.

```

```

UPDATE instructor
SET salary = CASE WHEN salary <= 60000 THEN salary*1.05
ELSE salary*1.03 END;

```

4 University Relations

Relations and their schemas:

```

classroom(building, room_number, capacity)
department(dept_name, building, budget)
course(course_id, title, dept_name, credits)
instructor(ID, name, dept_name, salary)
section(course_id, sec_id, semester, year, building, room_number, time_slot_id)
teaches(ID, course_id, sec_id, semester, year)
student(ID, name, dept_name, tot_cred)
takes(ID, course_id, sec_id, semester, year, grade)
advisor(s_ID, i_ID)
time_slot(time_slot_id, day, start_time, end_time)
prereq(course_id, prereq_id)

```