The purpose of this tutorial is to practice writing queries using:

- VIEW

- LEFT JOIN

- RIGHT JOIN

- CONCAT

1 Creating Views

If you forget the syntax for creating a VIEW you can check it here (note we only do simple views):

http://www.mysqltutorial.org/create-sql-views-mysql.aspx

Create a view called **A_students** that contains all student `ids` and `course_ids` for students who have an `A`, `A-` or `A+`.

Your solution should output a table like this:

```
+-------+-----------+
| id    | course_id |
+-------+-----------+
| 00128 | CS-101    |
| 00128 | CS-347    |
| 12345 | CS-190    |
| 12345 | CS-315    |
| 12345 | CS-347    |
| 54321 | CS-101    |
| 55739 | MU-199    |
| 76543 | CS-101    |
| 76543 | CS-319    |
| 98988 | BIO-101   |
+-------+-----------+
```

2 LEFT and RIGHT JOINS

Read the section on `LEFT JOIN`s: http://www.mysqltutorial.org/mysql-left-join.aspx

- Use a `natural left join` to find all those instructors who are not teaching anything. First return a table with all columns. Then add to your query to only return the instructor names.

  Your final output should be:

  ```
  +-----------+
  | name      |
  ```

```
+-----------+
| Gold      |
| Califieri |
| Singh     |
+-----------+
```

- Now find the only time slot that does not have a course scheduled. Use a `LEFT/RIGHT JOIN` and `IS NULL`.

- Come up with a query that requires a `left/right/full` join and ask a partner to solve your query.

3 CONCAT

Refer to the tutorial on string functions as needed.

http://www.tutorialspoint.com/mysql/mysql-string-functions.htm

- For all prerequisites, return a table of sentences of the form "Course A is a prerequisite for course B" where A and B come from the `prereq` table. Label your column 'Requirements'.

```
+-----------------------------------------------+
| Requirements                                  |
+-----------------------------------------------+
| Course BIO-101 is a prerequisite for BIO-301. |
| Course BIO-101 is a prerequisite for BIO-399. |
| Course CS-101 is a prerequisite for CS-190.   |
| Course CS-101 is a prerequisite for CS-315.   |
| Course CS-101 is a prerequisite for CS-319.   |
| Course CS-101 is a prerequisite for CS-347.   |
| Course PHY-101 is a prerequisite for EE-181.  |
+-----------------------------------------------+
```

- Play around with some other string functions. Become familiar with a few of them.