

CS 327E Project 1, due Thursday, 09/07.

0. Before you start on this project, you must **disable binary logging** on your MySQL instance. Otherwise, you won't be able to create the sakila database.

To disable binary logging, follow these steps:

- click on your MySQL instance from the GCP console and start up the instance.
- click on the Edit button at the top of the page to edit the instance.
- in the Customize your instance section, expand the Data Protection subsection.
- uncheck Enable point-in-time recovery.
- click Save.

It should take a few seconds for the instance to update. You don't need to restart it.

1. Go to JupyterLab and open a terminal window.

Download the sakila dataset from Google Cloud Storage. Run the following commands to download and unzip the dataset:

```
gsutil cp gs://cs327e-open-access/sakila.zip .  
unzip sakila.zip
```

Open the sakila folder and look at the three files in this folder:

`sakila-database.sql`, `sakila-data.sql`, and `sakila-diagram.png`. If there is a data type in the create table statements which you don't recognize, look it up in the [MySQL documentation](#).

2. Create a new Python Jupyter notebook and name it `project1.ipynb`. Implement the following logic in your Jupyter notebook:

- Create the sakila database and database objects by running `sakila-database.sql`.
- Populate the tables by running `sakila-data.sql`.
- Get a row count for the tables actor, address, city, country, and customer in the database.
- Write a query to sample a few records from the tables actor, address, city, country, and customer using the LIMIT clause.
- Write one query on any table that uses both a WHERE clause and ORDER BY clause. Add a short comment above your SQL statement to describe the query.

- Write an INSERT statement to add a record into any one of the tables. Add a short comment above your SQL statement to describe the SQL.
- Write an UPDATE statement to update one or more records from any one of the tables. Add a short comment above your SQL statement to describe the SQL.
- Write a DELETE statement to delete one or more records from any one of the tables. Add a short comment above your SQL statement to describe the SQL.

CS 327E Project 1 Rubric

**Due Date: 09/07/23**

<p>Download and extract the sakila dataset to your jupyter notebook instance.  <b>-5</b> no dataset or incorrect dataset found in Jupyter instance</p>	5
<p>Create a new Python Jupyter notebook named <code>project1.ipynb</code>.  <b>-5</b> incorrect file name</p>	5
<p>Create the database based on <code>sakila-database.sql</code>.          Populate the tables from the <code>sakila-data.sql</code> file.  <b>-30</b> missing sakila database  <b>-7</b> for each missing table or incorrect data load</p>	30
<p>Run a row count of tables: actor, address, city, country, and customer, in the database.  <b>-3</b> each missing row count</p>	15
<p>Run a query that samples the data from tables: actor, address, city, country, and customer, using the LIMIT clause.  <b>-3</b> for each missing query</p>	15
<p>Run a query that includes a WHERE clause and an ORDER BY clause. Include a short comment above your query to explain its function.  <b>-5</b> missing WHERE clause  <b>-5</b> missing ORDER BY clause  <b>-2</b> missing comment or comment is not descriptive</p>	10
<p>Run other CRUD operations:</p> <ul style="list-style-type: none"> <li>• An INSERT statement into a table.</li> <li>• An UPDATE statement on a table</li> <li>• A DELETE statement on a table</li> <li>• A short comment above each statement to explain their function.</li> </ul> <p><b>-5</b> each incorrect statement  <b>-2</b> for each missing comment or comment is not descriptive</p>	20
<p><code>project1.ipynb</code> pushed to your group's private repo on GitHub. Your project <b>will not</b> be graded without this submission.</p>	<b>Required</b>
<p><code>submission.json</code> submitted into Canvas. Your project <b>will not</b> be graded without this submission. The file should have the following schema:</p> <pre>{   "commit-id": "your most recent commit ID from GitHub",   "project-id": "your project ID from GCP" }</pre> <p>Example:</p> <pre>{</pre>	<b>Required</b>

<pre>"commit-id": "dab96492ac7d906368ac9c7a17cb0dbd670923d9", "project-id": "some-project-id" }</pre>	
<b>Total Credit:</b>	<b>100</b>