

INT 2080 Lab 6 (100 marks)

Question 1: MySQLdump Backup

- a. Using mysqldump utility, take a backup of only the database structure (no data). Name the output file “no_data.sql”. Take screenshots and attach to your submission. Attach the file to your submission.

```
$ ./mysqldump_backup.sh
mysqldump: [warning] Using a password on the command line interface can be insecure.
Backup success
-rw-r--r-- 1 kasey 197609 43829 Sep 28 14:56 no_data.sql
```

- b. Using mysqldump utility, take a backup of a database of your choice on the MySQL server. Name the output file “single_backup.sql”. Take screenshots and attach to your submission. Zip the file and attach the file to your submission.

```
mysqldump: [warning] Using a password on the command line interface can be insecure.
Backup success
-rw-r--r-- 1 kasey 197609 7672 Sep 28 14:56 single_backup.sql
-rw-r--r-- 1 kasey 197609 2416 Sep 28 14:56 single_backup.sql.gz
```

- c. Using mysqldump utility, take a full backup of all the databases on the MySQL server. Name the output file “fullbackup.sql”. Take screenshots and attach to your submission. Zip the file and attach the file to your submission.

```
mysqldump: [warning] Using a password on the command line interface can be insecure.
Backup success
-rw-r--r-- 1 kasey 197609 5128987 Sep 28 14:56 full_backup.sql
-rw-r--r-- 1 kasey 197609 1089194 Sep 28 14:56 full_backup.sql.gz
```

- d. What is the difference between backup generated in 1b and 1c?

The backup generated in 1b was for a specific database, in my case the database is called student_data. Specifying the database name at the end of mysqldump command selects the specific database. While the backup generated in 1c was for all databases in MySQL server. Must include the “--all-databases” keyword to mysqldump command, see script for reference.

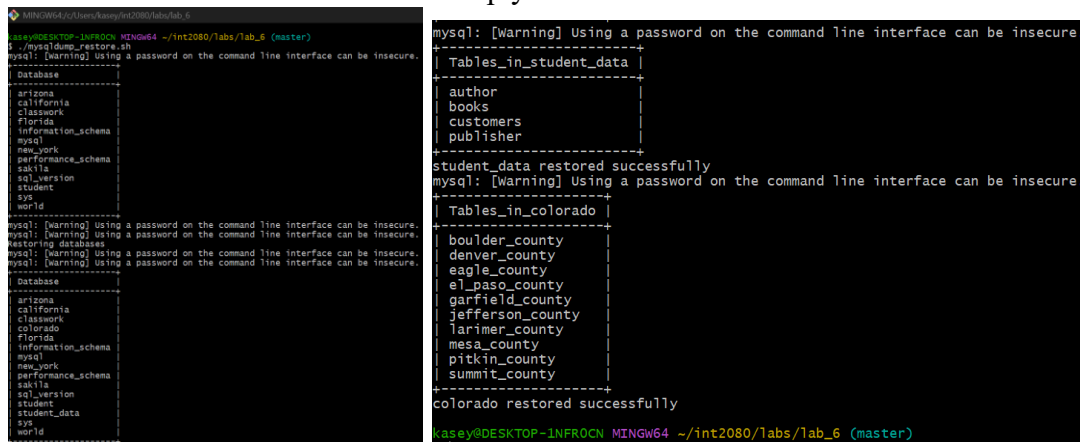
- e. Launch MySQL from command line and drop any two databases of your choice.

```
| california |
| classwork |
| colorado  |
| florida   |
| information_schema |
| mysql     |
| new_york  |
| performance_schema |
| sakila    |
| sql_version |
| student   |
| student_data |
| sys       |
| world     |
+-----+
15 rows in set (0.010 sec)

mysql> DROP DATABASE student_data;
Query OK, 4 rows affected (0.844 sec)

mysql> DROP DATABASE sql_version;
Query OK, 0 rows affected (0.090 sec)
```

- f. Restore the databases from the backup you created in 1c.



```
kasey@DESKTOP-INFR0CN MINGW64 ~/int2080/labs/lab_6
mysql> . ./mysql_dump_restore.sh
mysql: [Warning] Using a password on the command line interface can be insecure.
Database
+-----+
| arizona |
| california |
| classwork |
| florida |
| information_schema |
| mysql |
| new_york |
| performance_schema |
| sakila |
| sql_version |
| student |
| sys |
| world |
+-----+
mysql: [Warning] Using a password on the command line interface can be insecure.
Restoring databases
mysql: [Warning] Using a password on the command line interface can be insecure.
mysql: [Warning] Using a password on the command line interface can be insecure.
Database
+-----+
| arizona |
| california |
| classwork |
| florida |
| information_schema |
| mysql |
| new_york |
| performance_schema |
| sakila |
| sql_version |
| student_data |
| student |
| sys |
| world |
+-----+

mysql: [Warning] Using a password on the command line interface can be insecure.
Tables_in_student_data
+-----+
| author |
| books |
| customers |
| publisher |
+-----+
student_data restored successfully
mysql: [Warning] Using a password on the command line interface can be insecure.
Tables_in_colorado
+-----+
| boulder_county |
| denver_county |
| eagle_county |
| el_paso_county |
| garfield_county |
| jefferson_county |
| larimer_county |
| mesa_county |
| pitkin_county |
| summit_county |
+-----+
colorado restored successfully
kasey@DESKTOP-INFR0CN MINGW64 ~/int2080/labs/lab_6 (master)
```

- g. What are the benefits of backing up a database?

The benefits of backing up a database include, supporting migration/testing environments, enabling recovery from ransom ware or malicious attacks, required compliance with data retention laws, and lastly protect against hardware failures/data corruption/accidental deletion.

- h. Is there any reason you will choose not to backup a database?

Some reasons you will choose not to back up a database include lack of resources, and for business reasons. If you don't have enough resources like space then you will not be able to backup a database.

NOTE:

- Insert all screenshots in a MS Word or similar document and convert them to pdf
- All screenshots must be full screen showing dates on the taskbar
- Attach all logs to your submission
- Answer all questions