**Lab 07 – Advanced SQL**

**(Transactions)**

**Submission:**

***Your submission will be a single text-based SQL file with the solutions provided.***

Create a new SQL tab in the MySQL workbench. Save the script as L07\_ID\_LASTNAME.sql

Your submission needs to be commented and include the question and the solutions. Make sure every SQL statement terminates with a semicolon.

You will use following data to complete the given tasks:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **employeeNumber** | **lastname** | **firstname** | **extension** | **email** | **OfficeCode** | **reportsTo** | **jobTitle** |
| 100 | Patel | Ralph | 22333 | rpatel@mail.com | 1 | NULL | Sales Rep |
| 101 | Denis | Betty | 33444 | [bdenis@mail.com](mailto:bdenis@mail.com) | 4 | NULL | Sales Rep |
| 102 | Biri | Ben | 44555 | [bbirir@mail.com](mailto:bbirir@mail.com) | 2 | NULL | Sales Rep |
| 103 | Newman | Chad | 66777 | [cnewman@mail.com](mailto:cnewman@mail.com) | 3 | NULL | Sales Rep |
| 104 | Ropeburn | Audrey | 77888 | aropebur@mail.com | 1 | NULL | Sales Rep |

* ***START TRANSACTION*** start a new transaction.
* ***COMMIT*** commits the current transaction, making its changes permanent.
* ***ROLLBACK*** rolls back the current transaction, canceling its changes.
* ***SET autocommit*** disables or enables the default ***autocommit*** mode for the current session.

**Tasks:**

1. Create an empty table exactly the same as the employees table and name it newEmployees.
2. Execute the following commands.

set autocommit = off;  
 start transaction;

1. Write an INSERT statement to populate the newEmployees table with the rows of the sample data. Insert the NULL value for the reportsTo column. (Write a single INSERT statement to insert all the rows)
2. Create a report that shows all the inserted rows from the newEmployees table. How many rows are selected?
3. Execute the rollback command. Display all rows and columns from the newEmployees table. How many rows are selected?
4. Do Task 3. Make the insertion permanent to the table newEmployees. Display all rows and columns from the newEmployee table. How many rows are selected?
5. Write an update statement to update the value of column jobTitle to ‘unknown’ for all the employees in the newEmployees table.
6. Make your changes permanent.
7. Execute the rollback command.
   1. Display all employees from the newEmployees table whose job title is ‘unknown’. How many rows are updated?
   2. Was the rollback command effective?
   3. What was the difference between the result of the rollback execution from Task 5 and the result of the rollback execution of this task?