

## COMP810 – Data Warehousing and Big Data

### Lab 6: SQL DML commands

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After completing this lesson, you should be able to do the following:

- Promote understanding of populating tables (insert) and updating tables
- Promote understanding of table relationships and referential integrity

Task 1: write a query to generate the students grade report (below). You should first insert the data from the report into the 3 tables that you created last week (*student*, *course*, *grade*). Your answer should include the SQL code and explain the logic behind the sequence of implementation.

Student no	Student Name	Course no	Course Name	Grade %
S-7895	John Little	ML	Machine Learning	65
S-1478	Carol Wang	P1	Programming 1	70
S-7895	John Little	P1	Programming 1	70
S-2054	Tony Vegas	ML	Machine Learning	75
S-1478	Carol Wang	ML	Machine Learning	77
S-2054	Tony Vegas	LDD	Logical Database Design	77
S-1478	Carol Wang	LDD	Logical Database Design	80
S-3982	Allis Ship	P1	Programming 1	85
S-3695	James Ship	P1	Programming 1	88
S-3695	James Ship	LDD	Logical Database Design	90

**Hint: remember to use the “commit” and “rollback” commands to save and undo changes.**

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Task 2: Use the HR schema to implement the following scenario.

The megacorp company want to expand its operation to New Zealand (**NZ**) by establishing a new department “**Research and Development**” department ID “**280**” located in Auckland city. The new department has the location ID “**3300**”, address “**AUT City Campus, WT Building**” and postal code “**1010**”. You and 4 of your friends are hired to work in the new department as “**IT\_PROG**”. This position comes with a salary package of **5000** and does NOT include any **commission percentage**. All employees in the new department are hired on **1<sup>st</sup> of March, 2016** and will report to the manager “**Steven King (Emp ID: 100)**”. The new 5 employees will take the Employee ID values of (**207 – 211**) and must get **email IDs** according to the format used in the employees table.

Implement the scenario above by inserting the necessary data into (***employees, departments, locations, countries***) tables.

Task 3: Use the HR schema to implement the following scenario.

You did an excellent work during the past few weeks and your manager decided to give you a commission of **0.05%**. Update your record in the employees table to give yourself the 0.05% commission.

**Hint: remember to use the “commit” and “rollback” commands to save and undo changes.**