

## Contents

MySQL Questions .....	2
Question A (MySQLQA.txt) .....	2
Question B (MySQLQB.txt) .....	3
Question C (MySQLQC.txt) .....	4
Question D (MySQLQD.txt) .....	5
Neo4j Questions .....	6
Question A (Neo4jQA.txt) .....	6
Question B (Neo4jQB.txt) .....	7
Question C (Neo4jQC.txt) .....	8
Question D (Neo4jQD.txt) .....	9

## MySQL Questions

Import the MySQL database as described in section 4.1 MySQL, of the Final Project Specification and write queries to satisfy the following.

Write only the exact MySQL command for each question into the appropriate file.

### Question A (MySQLQA.txt)

Show the film name (as "Film") and the number of actors in that film, for films from the "20<sup>th</sup> Century Fox" studio.

The results should be sorted alphabetical by "Film".

Film	Number of Actors
Kingdom of Heaven	5
Live Free or Die Hard	3
Mr. and Mrs. Smith	4
Sunshine	3
The Day After Tomorrow	3
Titanic	4

6 rows in set (0.00 sec)

Figure 1 Example of output required for Question A

Question B (MySQLQB.txt)

Show the names of actors born in November (as “Born in November”) and the number of Films they starred in (as “Number of Films”).

The results should be sorted in ascending “Number of Films” order, and within that alphabetically by name.

Born in November	Number of Films
Billy Connolly	1
Don Cheadle	1
Leonardo DiCaprio	1
Mary Elizabeth Mastrantonio	1
Tom Sizemore	1
Owen Wilson	2
Samantha Bond	2

7 rows in set (0.00 sec)

Figure 2 Example of output required for Question B

Question C (MySQLQC.txt)

Show the name of films (as "Film") that have at least one actor from *Ireland*.

The results should be sorted alphabetically by "Film".

```
+-----+
| Film                                     |
+-----+
| Batman Begins                          |
| Beowulf                                |
| Die Another Day                        |
| Harry Potter and the Goblet of Fire    |
| Harry Potter and the Order of the Phoenix |
| Harry Potter and the Philosopher's Stone |
| Kingdom of Heaven                      |
| Mission: Impossible II                 |
| Sunshine                               |
| Tomorrow Never Dies                    |
| Troy                                   |
+-----+
11 rows in set (0.00 sec)
```

Figure 3 Example of output required for Question C

#### Question D (MySQLQD.txt)

Show the name of films released between 1990 and 1993 inclusive (as “Film”) and a shortened film synopsis (as “Synopsis”).

The synopsis should contain either:

- All characters up to, and including, the first comma, followed by “ ...”
- If there is no comma in the film synopsis – the first 10 characters of the synopsis followed by “ +++”.

The results should be sorted alphabetically by “Film”.

Film	Synopsis
Back to the Future Part III	Doctor Emm +++
Dances With Wolves	Lt. John Dunbar, ...
Goodfellas	Henry Hill +++
Jurassic Park	Scientists +++
Kindergarten Cop	A tough co +++
Lethal Weapon 3	Martin Riggs finally meets his match in the form of Lorna Cole, ...
Reservoir Dogs	After a simple jewelery heist goes terribly wrong, ...
Robin Hood: Prince of Thieves	When Robin and his Moorish companion come to England and the tyranny of the Sheriff of Nottingham, ...
Star Trek VI: The Undiscovered Country	The crews +++
Terminator 2: Judgement Day	The cyborg who once tried to kill Sarah Connor must now protect her teenager son, ...
The Fugitive	Dr. Richard Kimble, ...

11 rows in set (0.00 sec)

Figure 4 Example of output required for Question D

## Neo4j Questions

Import the Neo4j database as described in section 4.2 Neo4j, of the Final Project Specification and write queries to satisfy the following.

Write only the exact Neo4j command for each question into the appropriate file.

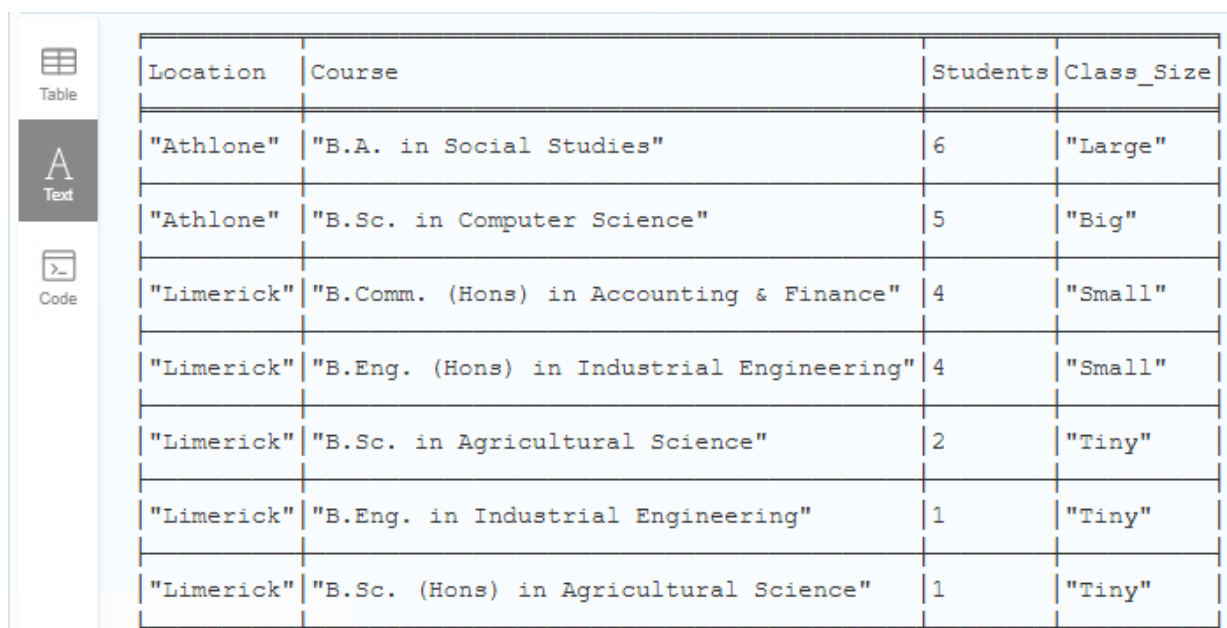
### Question A (Neo4jQA.txt)

Return the location (as "Location"), the Course name (as "Course"), the number of students studying the course (as "Students"), and a column entitled "Class\_Size" that has one of the following values:

- "Tiny" if the number of students studying a course is less than 4
- "Small" if the number of students studying a course is equal to 4
- "Big" if the number of students studying a course is equal to 5
- "Large" if the number of students studying a course is greater than 5.

Only courses in the Institution *Technological University of the Shannon* should be included.

The results should be sorted in descending "Students" order, and within that alphabetically by "Course".



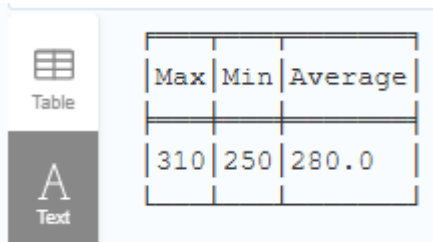
Location	Course	Students	Class_Size
"Athlone"	"B.A. in Social Studies"	6	"Large"
"Athlone"	"B.Sc. in Computer Science"	5	"Big"
"Limerick"	"B.Comm. (Hons) in Accounting & Finance"	4	"Small"
"Limerick"	"B.Eng. (Hons) in Industrial Engineering"	4	"Small"
"Limerick"	"B.Sc. in Agricultural Science"	2	"Tiny"
"Limerick"	"B.Eng. in Industrial Engineering"	1	"Tiny"
"Limerick"	"B.Sc. (Hons) in Agricultural Science"	1	"Tiny"

Figure 5 Example of output required for Question A

Question B (Neo4jQB.txt)

Return the maximum points (as “Max”), the minimum points (as “Min”), and the average points (as “Average”) for courses in “Athlone”

The “Average” should be rounded to the nearest whole number.



Max	Min	Average
310	250	280.0

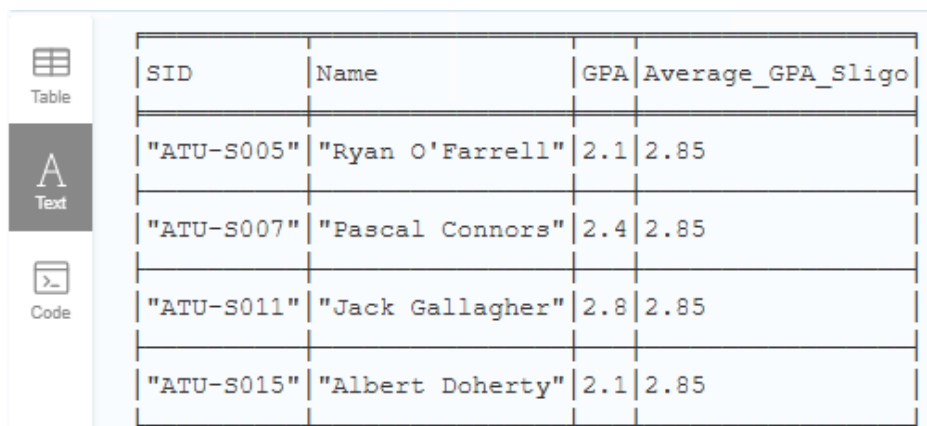
Figure 6 Example of output required for Question A

Question C (Neo4jQC.txt)

Return the sid (as “SID”), name (as “Name”), and gpa (as “GPA”), and a column entitled “Average\_GPA\_Sligo” (rounded to two decimal points) which consists of the average gpa of students in “Sligo” doing courses of 4 years in duration.

However, only students whose gpa is less than the “Average\_GPA\_Sligo” should be included.

The results should be sorted alphabetically by “SID”.



SID	Name	GPA	Average_GPA_Sligo
"ATU-S005"	"Ryan O'Farrell"	2.1	2.85
"ATU-S007"	"Pascal Connors"	2.4	2.85
"ATU-S011"	"Jack Gallagher"	2.8	2.85
"ATU-S015"	"Albert Doherty"	2.1	2.85

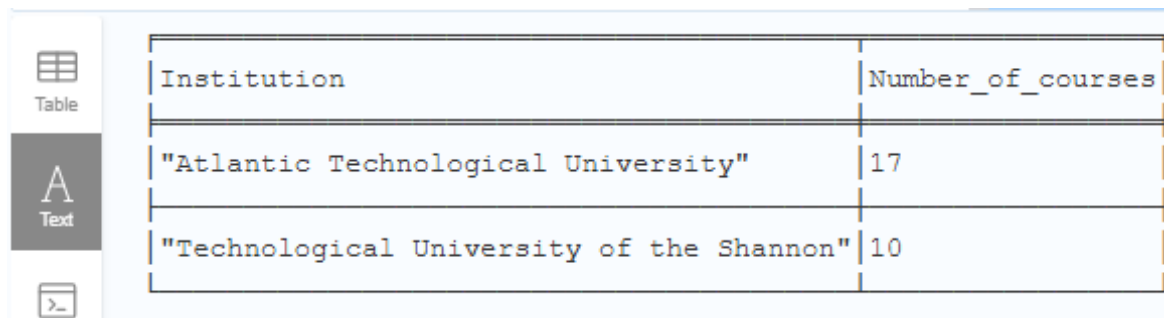
Figure 7 Example of output required for Question C



Question D (Neo4jQD.txt)

Return the name of each institution (as “Institution”) and a column entitled “Number\_of\_courses” which contains the number of courses provided by that institution.

The results should be sorted alphabetically by “Institution”.



Institution	Number_of_courses
"Atlantic Technological University"	17
"Technological University of the Shannon"	10

Figure 8 Example of output required for Question D