

## CT230 DATABASE SYSTEMS

### ASSIGNMENT: 1

LAB DATE: 27<sup>TH</sup> AND 28<sup>TH</sup> SEPTEMBER, 2<sup>ND</sup> OCTOBER 2018

**Due:** (via Blackboard) by Friday 5<sup>th</sup> October

\*there is a penalty for late submissions\*

**Learning Outcomes:** To become familiar with adminer, mySQL and the COMPANY schema from Elmasri and Navathe which is being used in lectures.

**Goal:** This assignment involves becoming familiar with the adminer interface and the company schema. The schema is the example used in lectures and is from Elmasri and Navathe (chapter 7, 3<sup>rd</sup> edition) and has been handed out at lectures as well as being available on Blackboard to import to your own database.

**Resources:** See lecture notes, videos and resources on Blackboard for help in getting a database on danu, creating a table and inserting data in to a table.

### TASKS:

1. Connect to your database using adminer at: <http://danu6.it.nuigalway.ie/adminer> If you have not already done so, import the company database and investigate the different options available and the six tables.
2. The company wishes to keep track of requests by employees for new equipment and stationery. To this end it creates a new table with the following schema:

```
request(requestID, essn, reqDate, itemReq, reason)
```

where :

- requestID is a unique integer number for each item requested by an employee and is the primary key (type int).
- essn is the ssn of the employee and is a foreign key to ssn in the employee table (type bigint).
- reqDate is the date the request is submitted (type date).
- itemReq is used to store the name of the item requested (type varchar(200)).
- reason is used to store the reason why the item is requested (type varchar(300)).

For example, if employee with essn 123456789 wishes to request a new phone, this might be stored as:

```
(1, 123456789, '2018-09-24', 'desk phone', 'phone broken')
```

```
request(requestID, essn, reqDate, itemReq, reason)
```

Steps:

- 2.1 Using the “Create table” option in adminer, create the request table, using the data types specified and creating the primary and foreign keys. Ensure that the “ON DELETE” and “ON UPDATE” options are set to “RESTRICT” when specifying the foreign keys and note that the target table is `employee` and target attribute is `ssn`.
- 2.2 OUTPUT: Using the “Database schema” option, get a screenshot of the schema of all tables and all the links between them – this should include the existing 6 tables in addition to the new `request` table.
- 2.3 Insert the given sample data using the `INSERT INTO` sql command (Choose the “SQL command” option). Note that the data is available in a text file on Blackboard (`request_data.txt`). Please note that tuples need to be separated by commas if inserting all tuples with a single query.
- 2.4 OUTPUT: Copy the SQL command used in to your submission.
- 2.5 OUTPUT: Get a screen shot of the data in the `request` table (Choose the “Select data” option)
  - For all assignments must run and include screenshot of output for following query with your name and ID included (not John Doe!):  

```
select now(), database(), "John Doe", "1234567";
```

## SUBMISSION

Use template provided to create document with the specified outputs. Note that the document must be viewed directly in Blackboard (**Word or PDF**, not zipped).

### Plagiarism Declaration:

**“I am aware of what plagiarism is and include this here to confirm that this work is my own”**

Please note that ZERO marks may be awarded IF:

- Document cannot be viewed directly in Blackboard (e.g. Word or PDF document)
- Document is not legible (e.g., screenshots blurred or too small)
- Database name is not visible (top green ribbon) on all screenshots
- Database name and time query is not run and output not included
- Plagiarism declaration is not signed
- Plagiarism is detected

Please note that marks will be LOST IF:

Submission is late and there are no medical or other valid grounds for the late submission. Any medical or other valid reasons for late submission should be communicated to me via email ([Josephine.griffith@nuigalway.ie](mailto:Josephine.griffith@nuigalway.ie)) with supporting documentation (med. cert. etc.)