Attached is a scripted database and data that these tests can be run on. You can view the script only or choose to actually create the database on an SQL server of your own. Send back your SQL code that would generate what has been requested from each exercise.

SQL 1:

The client is running a competition for students who log into CareerHub between two dates. The client would like an export from the database with a row for each student who logged in at least once and a count of how many times each student logged in, ordered by number of logins from most to least.

The export should be in the format as the example below:

Name	Count of logins
Joe Student	11
Sally Student	9
Roger Student	2
Arthur Student	1
Simon Student	1

For this exercise use the date range 01/07/15 to 31/7/15. For bonus points consider that all times in the database are stored in UTC +0/GMT time and the client is based in Brisbane which is GMT +10 so you should offset the time to account for this.

SQL 2:

CareerHub has a labelling function that enables users to be grouped together. The database stores the linking in a table named users_labels which has two columns (UserID, LabelID). The LabelID is an integer that relates to the ID of the label that links the group together.

The exercise is to insert any JobSeekers into the users_labels table that match the following criteria:

- External ID has more than 10 characters
- IsProvisioned = false

- AcceptedTermsDate is complete (this is a **DateTime** that is complete when the student accepts the terms & conditions)

The LabelID for this exercise is the int 151. There may also be existing records for some UserID's and LabelID 151 so these should be excluded.

Email response:

Below is an email from a CareerHub client who noticed their automated student newsletter had not been sent. The email is scheduled to send weekly to around 75,000 students and if this process was to fail it would be a major inconvenience to the client and University as a business. It was found that our daily email sending limit for the third party service provider we use to send email for this client had been exceeded. This means this it was a temporary issue (daily send limit resets every 24 hours) and it wasn't directly the fault of CareerHub however as the provider for the service we take responsibility for its failure.

The task is to write an custom service orientated email response that covers the following areas:

- Explanation of what has happened
- Anything that can be done to resolve this incident(is sending it later in the week better than not at all?)
- Set expectation of what will happen with the next scheduled newsletter (temporary or ongoing issue)
- Identify steps you will take to manage this situation(email daily send limit exceeded) better in the future and attempt to prevent it all together (what steps can be taken to avoid this entirely in the future or to be alerted before it is an issue)
- Client greeting and farewell

Hi,

The automated CareerHub newsletter that is sent out to students and administrators every Thursday at about 10pm wasn't sent out last week (21 July).

Are you able to investigate the cause for this and any possible solutions?

Let me know.

Regards,
John Barama
Career Operations Manager