**Lab Sheet 11**

**Introduction to Data Analytics**

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The purpose of this week’s lab is to provide space and time for all students to evaluate their visualisation for the coursework as defined by Task 3.2. It does not have to be completed during the session but it will be easier if you can do so then (as you will be responsible for arranging any additional meetings required).

# Preparation

The first part of the preparation is to complete task 3.1 of the coursework specification – create an implementation in Tableau for the three tasks mentioned and create a packaged workbook that can be shared with the rest of your group (and with me for marking when you submit it).

Remind yourself of the Munzner framework for validating visualisations in the VisValidation slides that were presented in week 2. For this coursework, we are going to focus on the post-implementation validation of the system through a user study (the other students in your group) that will cover

* Measuring system and user time
* Informal usability study
* Testing on human users

(see slide 11 for details).

Now read the slides and listen to the presentation for this week’s lab class. The most relevant parts for this study are slides 9-11, 14 and 15.

Your goal in this evaluation is to measure how effective the visualisation is in a number of ways. Some suggestions are:

* Can the users accurately carry out the tasks required using the visualisation?
* How long does it take for users to carry out each task?
* What is the user’s subjective view of the quality of the visualisation?

To do this, you will need to define a set of tasks for the users to carry out and a way of measuring the results (e.g. using an online questionnaire or a Word document for them to complete). You will need to create this before the lab class. It is good practice to include a short description of the system and the tasks so that the users understand their role. The tasks and the recording of the results should take no more than 15 minutes to complete (to fit into the 20-minute blocks of the study).

(In a real study, it would be necessary to consider ethics and potentially get formal approval, but they are not needed in this context).

# Running the study

Before the lab class, contact the other members of your group and send them your Tableau visualisation and any other documentation they need (questionnaire as a link or a document). You should not share your report (or any draft of it) as it is not relevant to this activity.

For those students who are on campus, please meet in the computer lab (Queen’s Building, F.101a/b/c the Bill Brown Suite) and make your way to a group of tables so that you can work together. Students who are online will need to join a Teams call to carry out this evaluation – I will be online to help support this.

I will do a short introduction and Q&A at the start of the class and will then time each 20-minute block. In each block one person’s visualisation should be evaluated by all their colleagues in the group at the same time (each with their own copy of the visualisation on their own machine) and the results returned to that study leader. Then on the next block, a second individual will lead their study, and so on. The TAs and I will be on hand to help out.

After running the study, you need to write it up in your report (no more than one page). This should include the measures in the study and why they were chosen, how you ran the study, and what the results tell you about the quality of your visualisation.

# Assessment

It is important to point out that the assessment of this evaluation study will not be based on the scores or other measures given to your visualisation by your fellow students. Instead, marks will be awarded on the quality of the evaluation study itself and what you learned from it. (In other words, if the other students in your group give the visualisation very positive feedback, that is not related to the marks I give to you for how you carried out the study).