# Lab 5

**Prototyping and Usability Evaluation**

On a sheet of paper, quickly sketch a simple website (theme of your choosing), using a metaphor and a mental model. In this lab you will create a use-case diagram for your web-site. You will also prototype the interactive functionality of your site using the prototyping tools you have used so far. You will also evaluate the usability of your prototype using *heuristic evaluation*. You will need to become familiar with heuristic evaluation as you will be expected to do such an evaluation as part of the module assignment later on. **Save your lab work regularly to a USB stick or your own account.**

**Part 1 – Prototype Creation**

* 1. Draw a *small* use-case diagram for your web-site using the CASE tool you used in Systems Infrastructure and Architecture 1, (e.g. Rational Rose/Argo UML etc.). Do not spend too much time on this. Paste a screenshot of your use-case diagram into a Word document. Name the document

*lab5-part1-UCD-studentNumber.docx .*

* 1. Create a simple *wireframe* prototype of your web-site using **Evolus Pencil** that demonstrates the site’s interactive functionality. Name the Pencil file

*lab5-part1-studentNumber.ep*. Refer to the use-case diagram you have drawn in 1.1 above when creating the wireframe prototype.

**Part 2 – Heuristic Evaluation**

Working with one other person from the class, carry out a heuristic evaluation of each other’s prototypes from Part 1 using Nielsen’s 10 Usability Heuristics for User Interface Design. You will do a heuristic evaluation of their Pencil prototype. They will do a heuristic evaluation of your Pencil prototype.

Use the Evaluation Sheet *‘****Nielsen* *10 Evaluation Sheet v3\_2018.xlsx’*** provided for Part 2 of this lab on Webcourses to carry out the heuristic evaluations. The Evaluation Sheet uses a Severity Rating Scale from Reference 4 and the end of this document. A severity rating helps decide which usability problems to fix.

To edit and save the evaluation sheet for your own learning experience, you will (of course) have to rename and save it. This file has locked fields. You must type in your evaluations into the unlocked fields.

Name the Evaluation Sheet used for the Pencil prototype as *lab5-part2-Pencil-studentNumber.xlsx*.

**Background Reference Material for Part 2**

**1 Articles on the General Topic of Heuristic Evaluation (Nielsen Norman Group)**

<http://www.nngroup.com/topic/heuristic-evaluation/>

**2 Ten Usability Heuristics for User Interface Design (Jakob Nielsen)**

<http://www.nngroup.com/articles/ten-usability-heuristics/>

**3 Examples of Nielsen’s 10 Heuristics applied to Web applications**

<http://designingwebinterfaces.com/6-tips-for-a-great-flex-ux-part-5>

Makes the application of Nielsen’s 10 to web pages a more explicit with examples from real applications.

**4 Severity Ratings for Usability Problems**

<http://www.nngroup.com/articles/how-to-rate-the-severity-of-usability-problems/>

How will you decide which usability problems to fix? Which problems will you allocate resources to? Severity rating of is one way to do this according to Nielsen to help decide which *‘show-stoppers’* to fix.

**Please ensure that you demonstrate your completed lab work to the Lecturer or Lab Supervisor before you leave the Lab today.**

You created four files in today’s lab

* lab5-part1-UCD-studentNumber.docx
* lab5-part1-studentNumber.ep
* lab5-part2-Pencil-studentNumber.xlsx
* lab5-part2-PowerPoint-studentNumber.xlsx

Submit the four files from today’s lab in one Zip file named

* *Lab5-studentNumber.zip*

**Upload your completed lab work in the ZIP file to WebCourses before you leave the Lab today to ensure there is a record of your work.**