Dept. of Computer Science and Information Systems

BSc Final Year Project Form (2015/2016)

1. Proposal

The student should complete parts 1(a), 1(b) and 1(c) below, and then agree the maximum pocket values with the supervisor and put these in part 2(a) below. An electronic version of this form should be uploaded to the Final Year Project page on Moodle no later than **Monday 2nd November 2015**.

(a) Student details

Name:	**Project BSc Computing (COIY039S6) (Type 4)**
Email:	

(b) Project details

Title:

Development of a Data Visualisation tool for Office for National Statistics (ONS) migration statistics

Objectives:

- Develop a tool for data visualisation of ONS migration statistics
- Identify and collect suitable data for analysis and visualisation
- Embed the tool in a web page showing graphical representations of ONS migration data
- Display additional contextual historical information such as key legislation changes and significant changes in migration patterns
- Demonstrate understanding of the data and its analysis using MySQL and other technologies
- Demonstrate understanding and deployment of an appropriate interface to visualise the data on the web page
- Develop the tool so that it is extensible to other types of ONS statistics
- Evaluate the effectiveness of the web page through user approved testing (UAT)
- Complete final project report

Description:

This application will be based in a web page. It will show in visual form (graphics) various statistics which relate to migration data for the UK.

The majority of the data for the application is currently in XLS format which facilitates processing, storage and querying of it using MySQL.

Data visualisation will be done using appropriate technologies, which are yet to be selected, but may include PHP and JavaScript.

Polling of the data to refresh the web page/database will be done using JSON or similar language.

Method:

I will be following an iterative development methodology for this project.

Work to be undertaken:

- Determine best data sources for migration statistics from ONS
- Research data visualisation technologies, select most appropriate method for implementation in this application
- Develop initial plan for the components of the application - web page, data sources, database, visualisation tool(s), etc.
- Extract relevant data for the application, perform analysis work as required
- Gather additional contextual data for the application
- Draft preliminary literature review
- Complete plan for the components of the application - web page, data sources, database, visualisation tool(s), etc.
- Build and test components of the application
- Conduct UAT, record results
- Revise components and re-test in UAT
- Complete first draft of full project report and submit to supervisor for review
- Revise draft of project report following supervisor comments
- Submit final draft of project report and coding

Work plan:	**Dates:**
• Develop and agree Project Proposal with supervisor	• By 02-Nov-15
• Select appropriate data sources from ONS website and other resources, start analysis of data	• By 13-Nov-15
• Research into data visualisation technologies	• By 18-Dec-15
• Develop initial plan for application components	• By 18-Dec-15
• Draft initial literature review	• By 08-Jan-16
• Complete plan for application components	• By 15-Jan-16
• Coding and initial testing of component parts	• By 12-Feb-16
• Revise coding, complete 2nd UAT evaluation of application	• By 26-Feb-16
• Update literature review and complete first draft of project report	• By 04-Mar-16
• Submit first draft of project report to supervisor for review	• By 11-Mar-16
• Complete coding and UAT evaluation of application	• By 31-Mar-16
• Revise draft project report and format for submission	• By 15-Apr-16
• Print, bind and electronically submit final project report	• By 29-April-16
• **Project submission deadline in Moodle is Tuesday 3-May-16**	

College equipment required:

No college equipment is required for this project