CS2040 Group Project Specification

CS2040: Multimedia Science and Web Applications
Due Date: TBC (April 2018)
Electronic Submission: Website to a USB disk, and Summary Report via Blackboard

Aims and Objectives

The aim of this project is to familiarise you with advanced multimedia web technologies to solve practical real-world problems. The project also encourages you to develop communication skills to build team spirit for systems development.

Tasks

Please apply the multimedia web techniques and web design skills that you have learned in CS2040 to design a small-scale website in communication with server.

You are encouraged to seek partners and work in groups. You can also work individually if you are unable to find a partner. For each group, the maximum number of students is three.

Each group should submit: **(1) a website**, and **(2) a one-page summary report**.

IMPORTANT NOTE:

(1) Save your website to a USB disk, and submit it to your TA in the final week's lab. We will return your USB disk upon completion of the assessment.
(2) Submit your one-page summary report (in PDF format) to Blackboard.

The topic of the website is flexible. It can be (but not limited to) one of the following:

- **A mini travel website** introducing the favourite places you have visited.
- **A mini music website** introducing your favourite music, clips, instruments, or musicians.
- **A mini food website** introducing your preferred dishes, sides, and recipes.
- **A mini academic website** introducing your profile, education experience, and social activities.

The website should consist of at least **X webpages** in total, where **X** is **three times** the number of students in your group. For example, if there are 2 students in your group, the website of your group should contain at least 6 webpages.

You can use any of your favourite web editors to design webpages (e.g., Notepad++, RJ TextEd, Dreamweaver, Visual Studio.NET, Komodo, etc.)

A one-page summary report should include: (1) the topic of your website, (2) 3-5 sentences to introduce the content of your website, (3) brief description mentioning all techniques used (see specification) and multimedia software used (e.g. Dreamweaver, Camtasia to edit videos, Gimp to enhance images and create logo), and (4) all the students' IDs and names in the group.

Mark Schemes

Your project will be marked out of 100 points. Each student in the same group will get the same marks. To get high marks, you should be able to demonstrate good understanding and knowledge of the multimedia web technologies in all the lectures delivered by Dr Weiren Yu and Dr Diego Faria.

Specifically, for Dr Weiren Yu's lectures, your project should demonstrate the following five points:

- (10 marks) **New INPUT Types in HTML5**
- (10 marks) **HTML5 Canvas (e.g., Basic Shapes, Text, Fill Styles, and Composites)**
- (10 marks) **Image Pixel Manipulation**
- (10 marks) **JS OOP & Canvas Animation**
- (10 marks) **Data Visualization & JSON**

If you have no idea how to demonstrate the above five key points in your website, please refer to Lab Exercises 1-5, where each exercise gives you a tiny example of how to demonstrate a key point. Do not expect a good mark if you simply put all the lab exercises together without showing anything new and different.

For Dr Diego Faria's lectures, your project should demonstrate:

- (10 marks**) Application of Web Design and Usability Concepts**. Check slides from week 6-7. Responsive Web Design.
- (15 Marks) **CSS3 (new features) Layout, Animation and Transitions** (e.g. menu, photo gallery or any other kind of animation useful for your website).
- (5 Marks) **Use of Multimedia**, e.g. Videos, Audio, Images (any kind of graphics), MindMap, Logo. In your page report you should evidence the use of some multimedia software like: Camtasia, Gimp, Audacity, etc.
- (5 Marks) **Advanced JS**: you can use regular expressions, code encryption or prototypal Inheritance.
- (15 Marks) **Use of server-side scripting**: e.g. login, subscribe page, query using a database, etc.