COURSEWORK ASSIGNMENT **UNIVERSITY OF EAST ANGLIA**
School of Computing Sciences

MODULE: Web Based Programming
ASSIGNMENT TITLE: Assignment 1: Website project

DATE SET	**:**	**Tuesday 6 October 2015**	
DATE & TIME OF SUBMISSION	**:**	**Report: 15:00 Wednesday 4 November 2015** **Demonstration: 3 or 4 November 2015 (Week 7)**	
RETURN DATE	**:**	**18 November 2015**	
ASSIGNMENT VALUE	**:**	**20%**	
SET BY	**:**	**D. J. Smith**	**SIGNED:**
CHECKED BY	**:**	**G. Richards**	**SIGNED:**

Aim:

Provide experience of web programming.
Provide experience of working in a pairs programming project.
Introduce a range of software development ideas and technologies that will be explored in greater depth later in the course.

Learning outcomes:

The ability to construct simple web applications using current web technologies
A simple understanding of the main features of architectural, design and development models for contemporary applications development

Assessment criteria

The main emphasis in marking will be on the demonstrated ability to design and construct a simple dynamic website, to analyse sites offering similar services, and to produce an appropriate report on these activities.
For the software developed in this assignment, marks will be awarded for the quality of the design, the usability, accessibility and appearance of the system, and the quality of the implementation.
Marks will be awarded (or deducted) for the quality of written English and the overall presentation and layout of the report, which is expected to conform to the School's guidelines for written work.

An indicative breakdown of marks is given on the marking sheet (attached). *Note that the distribution of marks is indicative only and may change.*

Description of assignment:

Your task is to design and construct a website for a holiday apartment.

Introduction

The task is to design a website for an independent hotel. It should include images of the hotel, room rates, a description of the facilities, directions to get there, contact details, local activities and attractions. You do not need to implement any booking facilities in this assignment. You should include facilities (an electronic visitor book) to allow comments to be left.
Your design should envisage an important use the site is to be linked to and from a hotel booking agency. The site should work well on mobile devices.

Brief

This assignment requires you to construct a web application that has:

1. Core functionality (40%):
 (a) A gallery capable of displaying thumbnails and larger images;
 (b) Descriptions of the hotel and of facilities of the local area;
 (c) Pages to read and display comments.

2. Additional functionality (25%):
When you have completed the core functionality listed above, you can add facilities dynamically create and modify content using JavaScript. For instance, if you have stored the image captions as the alt text in the <img> tag, this can be retrieved and displayed with JavaScript. Much more is possible and your task in this section is to make good use of HTML5 capabilities, combined with JavaScript to give a good user experience.

3. Documentation (15%):
 (a) Good quality comments in your code;
 (b) A review, including suitable screen shots, etc. of similar sites which have feature which you have found helpful or influential (negative or positive) in your design;
 (c) A description of the tests done on different browsers and mobile devices (max. 2 sides);
 (d) A description of the main design decisions and limitations of your site, primarily aimed at future developers or maintainers of the site (max. 2 sides).

4. Quality of coding: HTML, CSS, JavaScript (20%)
All the HTML code must be validated to HTML5, with all the style elements in external CSS stylesheets (any in-line style tags or formatting attributes will be penalised); the JavaScript needed for the third part of the assignment should all be in external scripts.

The percentages for each category indicate the relative importance of the different elements for this assignment.

Resources

You will need to consult a range of sources. For this project you must use the information you can discover unaided and you may not request further information from other people or organisations.

Queries or clarifications concerning the brief can be addressed to Dan Smith (Dan.Smith@uea.ac.uk); responses of general interest will be copied to the class mailing list or Blackboard. Any clarifications to the requirements will also be posted there.

Working arrangements

You will work in pairs to do the assignment, and you will write a single *joint* report for assessment.

You will also keep an individual diary describing the tasks you have undertaken, the results and problems encountered, when and how long the task took to complete. You will be asked to submit the diary as part of the submission process (any other code or documentation related to the project may also be used in marking).

Major deliverables

Demonstration

In the lab session of Week 7 you will have to demonstrate your project. The purpose of the demonstration is to show the functionality of the system you have designed and implemented. You will be asked to perform a series of tests, and to answer questions about the system, its design, performance and functionality. The marks for the system will be based on this demonstration. Marks will be awarded for:

- functionality, robustness and features implemented,
- design, appearance and usability,
- presentation, organisation and style of the system demonstration.

The demonstration must take place on a CMP lab machine unless an alternative has been agreed by Dan Smith and confirmed by email. In order to provide a fair assessment, we will not accept systems, languages or technologies other than those specified in this documentation.

Everybody must attend the demonstration – failure to attend without good cause will result in the loss of half the marks available for the individual element of the project.
Each pair must submit, via Blackboard, a single zip archive of all the files for the project, organised in a single directory tree, so that it can be reviewed later. The file must be called pairXX.zip, where XX is your pair identifier.

Documentation

You will need to write a joint report that provides a description of the design and the important implementation issues for your system. The design should be documented using appropriate text and diagrammatic methods. You should highlight the assumptions about the use and context of the system, problems and limitations of your proposed solution. The principal audience for this report is a future developer or system maintainer.
The report should include:

- the assumptions and justification for the major design and implementation decisions,
- a discussion of the main features of similar sites,
- a brief description of the structure of the site,
- descriptions of tests for validity, browser compatibility, accessibility, etc.

The maximum length of the report is 6 pages (this includes everything: appendices, optional title page, ...), using 12 point Times or a similar font for the running text and the presentation conventions described in the School's guidelines for written work.
Everybody should submit a PDF copy of the report by 15:00 Wednesday Week 7. The report must be entitled "PairXX project 1", where XX is your pair identifier.

Individual work (40% of CW1)

40% of the mark for this work will be for individual effort and achievement, as reflected in the overall output of the group and the evaluation of your partner. The mark awarded will be based on the final system as seen in the demonstration, the code, report and partner evaluation.

Diary

You should complete a diary describing when you worked on the project, what you did and how long it took (e.g. "23Oct 4:00 hrs, JavaScript buttons and linked functions"). You must submit your individual project diary with the peer evaluation. This will not be marked, but may be used to clarify any queries about your work.

Peer evaluation

You must complete a partner evaluation for the other member of your group, using the evaluation test that will be available on Blackboard. *If you do not complete these evaluations your individual contribution will automatically be halved.* Your individual mark will be based on the evaluation of your contribution made by the other group member (unless there is strong evidence of malevolent or capricious evaluation). The evaluation test gives a score that will be used as the basis of a multiplier of the group mark, so a good evaluation of your contribution will lead to a high mark, but your evaluation of your partner's contribution does not affect your own mark.

Submission

The report (PDF format) is submitted to the Hub by 15:00 Wednesday Week 7
The code is submitted via Blackboard by 15:00 Wednesday Week 7
The diary submission and peer evaluations are completed on Blackboard by midnight Wednesday Week 7

Web Based Programming Pair Project Marking Sheet: Demonstration and documentation

Pair	
Assessor	
Comments	

Project elements							
Element	**Excellent**	**Very good**	**Good**	**Acceptable**	**Poor**	**Missing or Inadequate**	
Gallery	15	12	9	6	3	0	15%
Descriptions	10	8	6	4	2	0	10%
Comments	15	12	9	6	3	0	15%
Testing and evaluation	5	4	3	2	1	0	5%
Code documentation + comments	5	4	3	2	1	0	5%
Rationale and competitor sites	5	4	3	2	1	0	5%
Additional functionality	25	20	15	10	5	0	25%
Good use of HTML, CSS, JavaScript	20	16	12	8	4	0	20%

Demonstration (%)	