Unit:
Designing and Developing a Website

Assignment title:
Butterflies

September 2015

Important notes
• Please refer to the Assignment Presentation Requirements for advice on how to set out your assignment. These can be found on the NCC Education Campus. Click on Policies and Advice in the left-hand menu and look under the Advice section.
• You must read the NCC Education documents ‘What is Academic Misconduct? Guidance for Candidates’ and ‘Avoiding Plagiarism and Collusion: Guidance for Candidates’ and ensure that you acknowledge all the sources that you use in your work. These documents are available on Campus. Click on Policies and Advice in the left-hand menu and look under the Policies section.
• You must complete the ‘Statement and Confirmation of Own Work’. The form is available on Campus. Click on Policies and Advice in the left-hand menu and look under the Policies section.
• Please make a note of the recommended word count. You could lose marks if you write 10% more or less than this.
• You must submit a paper copy and digital copy (on disk or similarly acceptable medium). Media containing viruses, or media that cannot be run directly, will result in a fail grade being awarded for this assessment.
• All electronic media will be checked for plagiarism.
Introduction

Butterflies are distinctive and popular insects with their slim bodies and large colourful wings. There are thousands of different species of butterfly and they can be found all over the world. Many adult butterflies play an important role in pollinating plants. However, there has been a decrease in the number of butterflies in the UK. Furthermore, there is growing evidence that this is a global problem, with a decline in the number of butterflies in many countries across the world. It has been argued that the destruction of butterflies’ natural habitat, and the increase in the use of pesticides, has caused this decrease in the number of butterflies.

Scenario

An international charitable organisation that works to conserve and protect endangered butterfly species has approached you to develop a website that will raise awareness of the decreasing number of butterflies. The charitable organisation wants to encourage users of the website to take an interest in butterflies and support the butterfly population. The website will need to provide the following features:

- **A Home Page** – This home page will allow users to navigate to the resources in the website. As a result, the home page will need to quickly communicate the purpose of the website, be visually engaging and provide clear navigation to the other information contained in the rest of the website.
- **An ‘Information’ Section** – This section will provide information about butterflies such as their lifecycle, migration, diet and habitat.
- **An ‘Endangered Butterflies’ Section** – This page will explain the decline in the global butterfly population.
- **A ‘Butterflies of the World’ Section** – This page will show the different species of butterfly that can be spotted in your region of the world. This page should be structured as an HTML table.
- **A ‘Butterfly Sightings’ Section** – This page will allow users to post information on the butterflies they have spotted. Using an HTML form, users will be able to enter the details of when and where they have spotted a particular butterfly species. They will also be able to upload a photograph to accompany their sighting.
- **A ‘Further Resources’ Section** – This page will provide links to other websites of interest and sources of further information.

At this initial stage in the development process, you are required to make an HTML/CSS prototype of the website that will clearly show the charitable organisation how the final website could work.

Content hasn’t been provided. Suitable content can be found on the web e.g. images of butterflies. Use creative commons (http://search.creativecommons.org/) or Wikimedia Commons (http://commons.wikimedia.org/wiki/Main_Page) as a starting point to find content. Remember the content you include in your website must be licensed for re-use. Do not spend excessive amounts of time researching and gathering content. The purpose is to provide a clear indication of how the final website could look and function. The client would provide the actual content at a later point if they are happy with the website you have proposed.
Task 1 – HTML (30 Marks)
The website must be developed using XHTML 1.0 Strict or HTML 5 and feature a minimum of SEVEN (7) interlinked pages. The website must feature the content described above and meet the following criteria:

- Feature a minimum of SEVEN (7) HTML pages.
- Be usable in at least TWO (2) different web browsers. You should consult your tutor for guidance on the specific browsers and versions that you should use.
- Be viewable on monitors with screen resolutions of 1024x768 without users having to scroll horizontally.
- Integrate and use a range of media appropriately.
- Demonstrate good application of web design principles and be easy to navigate and use.

Task 2 – CSS (30 Marks)
Create a single external CSS file that specifies the design for the website. Each of the HTML pages must link to this CSS file. There should be no use of the style attribute or the <style> element in the website.

Task 3 – Test the Website and Write a Test Report (20 Marks)
You must use the W3C validation service (http://validator.w3.org/) to check your HTML and CSS code. You should endeavour to remove as many non-compliant features as possible. Make sure ‘show source’ is selected and save the output from this tool.

Test the website using at least TWO (2) different web browsers. Record any significant differences between the rendering of the two browsers and attempt to diagnose the cause. You do NOT need to modify your code to correct any differences between browsers. Please consult your tutor for advice on the specific browsers you should use for testing.

Write a short report describing your testing. Provide a description of any outstanding problems and recommendations for fixing them.

The written part of your report should not exceed 500 words.

Task 4 – Critical Evaluation (20 Marks)
You are required to write a short report (500 words) analysing the website you have submitted. You should highlight the advantages and disadvantages of your website, suggest improvements, and propose ideas for further development. This analysis must include a discussion of the accessibility of the website and the ways in which the website has been designed to support mobile users.
Additional Information for Clarification
Consult with your tutor/lecturer if you are uncertain about any aspects of the assignment.

The website must be developed using XHTML 1.0 Strict or HTML 5 and CSS. No other technologies should be used. You do not need to write any computer programs for this assignment.

The purpose of this assignment is to show abilities in web design. Although you should be wary of needlessly adding features, websites that demonstrate a range of HTML features used appropriately have the potential to gain higher marks. For example, a form that features a range of different form elements applied in a useful and relevant way would generally score a higher mark than a simple form that only uses text boxes to gather data.

Submission guidelines
- A word-processed, printed document containing all the written components of the assignment (Tasks 3 and 4), signed and dated by your tutor/lecturer.
- A copy of all the word-processed material (Tasks 3 and 4) together with the website (Tasks 1 and 2) on appropriate media (CD, USB flash drive, etc.). Ensure that the web pages can be viewed directly from the submitted media. Do not submit any server-side code; it is not required for this assignment.

Candidate checklist
Please use the following checklist to ensure that your work is ready for submission.

Have you read the NCC Education documents ‘What is Academic Misconduct? Guidance for Candidates’ and ‘Avoiding Plagiarism and Collusion: Guidance for Candidates’ and ensured that you have acknowledged all the sources that you have used in your work?  

Have you completed the ‘Statement and Confirmation of Own Work’ form and attached it to your assignment? **You must do this.**

Have you ensured that your work has not gone over or under the recommended word count by more than 10%?

Have you ensured that your work does not contain viruses and can be run directly?