Support Notes (Issue 1)

September 2016

Diploma in Digital Applications (DA105) Coding for the web

Careers Fair

Key points for this SPB

- The DA105 SPB 0916 is valid for moderation in June 2017, December 2017, June 2018 and December 2018.

- Unit 5 is a 30-Guided Learning Hours (GLH) unit. Centres must allow 10 hours for students to complete their Summative Project.

- For this SPB the product is a two-page website.

- For this SPB the evidence is:

  - wireframes
  - test log
  - review.

- These support notes should be read in conjunction with the Chief examiners report available on the Pearson website.

Introduction

Before tackling the Summative Project Brief (SPB), students should have acquired the appropriate skills, knowledge and understanding as specified in the 'What You Need To Learn' sections of the DA105 specification.

Teachers and students should remember that the emphasis of the specification is 'creative computing'. It is therefore vital that students take the chosen purpose into account when designing and creating products.

In order to encourage an independent approach to the SPB, students should be taught how to create and use appropriate types of documentation to support and record the planning, design, production and review of their work.

Section 1: Tackling the Careers Fair SPB

Students should be reminded that they are being assessed on their ability to use HTML, CSS and JavaScript effectively rather than their ability to create appropriate content for the website.

Test log

Students should test their web pages to make sure that they work as intended in their chosen web browser. The results of this testing should be recorded in a test log.

This test log should detail the dates and outcomes of testing. Students should test that:

- the pages function as intended, e.g. pages link together, the image carousel works, the link to the school website works
- all content appears appropriately on the page(s), e.g. images appear in a suitable size and resolution
- the page layout is as intended.

Wireframes

Students must create a wireframe for each web page. They must discuss these with their teacher and gain approval before continuing.

Students should read the whole SPB before creating the wireframes so that they know what each page must include. Students should be reminded that the layout of the pages should be consistent.

Students should decide on an appropriate page size for the website and indicate this on the wireframes. The wireframes may be in any format, e.g. hand drawn and scanned or computer generated, but it must be made clear to students that the purpose of the wireframes is to show the content and layout of each page.

Each wireframe should include annotations to indicate the nature and size of each page element, e.g. header (1024px x 75px). These could be added as handwritten notes or text boxes/callouts on a computer-generated design. In addition, students should make notes on layout and style, e.g. text box – background #636f57, text #000, border 1px solid #000, padding 5px.

Students should select the web browser that they intend to use to test their web pages. This information should be added to the wireframes.

Writing and editing HTML

At the beginning of the coding stage, students must create a logical directory structure. Students should create their own root folder containing separate folders for images, CSS files and JavaScript files. Students should save their pages as .html, making sure that the home page is saved as index.html

If students are using web authoring software, they should, at times, use the code view to write and edit the HTML code directly, e.g. to add information to structural elements such as <title> and <meta> within the <head> element.

Students will need to have sufficient command over the HTML code in their pages to add internal and external links, create a table of information and manipulate the page structure to include page elements and assets such as headers, footers, text and images.

When creating each web page, the focus should be on the process of writing and editing the HTML to make each page function as intended.

Although students will need to populate their web pages with relevant text and images, the focus of this unit is the coding element of creating a website. Students should spend their time controlling the layout, position, functionality and appearance of page elements rather than creating assets. Students should be provided with appropriate text and access to an image bank, to enable them to focus on writing and editing the code appropriately. The text and image bank should be created by the centre.

Writing and editing CSS

Students will be expected to use CSS rules to style text, images, links, tables and other elements such as boxes. Testing in the chosen browser will be essential if pages are to function as intended. Students should record these tests in their test log.

Students will use CSS positioning techniques to create the page layouts established in their wireframes.

JavaScript

Students must use JavaScript to include an image carousel on the home page. The image carousel should contain images to illustrate the careers featured in the talks. The images should rotate automatically at timed intervals.

Students are not expected to write the JavaScript, although they will have to edit the code to incorporate a JavaScript image carousel into their web pages. The use of JavaScript libraries such as JQuery is permitted or teachers can provide appropriate JavaScript for students.

The image carousel should be prominent on the page and contain images of sufficient size and interest so as to significantly enhance the user experience. The image carousel should match the style of the page, e.g. background colours.

Page layout

Students should use their coding skills to create pages that resemble their wireframes, although it is envisaged that improvements will occur, as students develop their initial ideas into fully functioning web pages.

Students should use HTML and CSS code to create appropriate page layouts and present information clearly, e.g. through the use of headings, paragraphs, line breaks, line-height, font-style, text-alignment and colour. There should be an appropriate balance between the amount of text and images on each page and links should be obvious.

Scrolling should be minimised, especially horizontal scrolling, by ensuring that all the page content is visible when the page is opened in the named browser at the intended resolution.

Review

Students should aim to produce a detailed review of the website, avoiding accounts of what they did and how they did it.

Students should comment on the strengths of the website and areas for improvement. They must include feedback from their end-of-project reviewer. However, there is no need to document any interim feedback received from their test buddy during the development of their product.

Students should conclude their review by making specific and valid suggestions for improvement. These may be their own ideas or come from the end-of-project reviewer.

Section 2: Saving the evidence

What evidence is required?

Students do not need to submit evidence of everything they do during their work on the project. They are asked to create named subfolders to store work for submission.

The symbol ![P] indicates a product to be stored in the PRODUCTS subfolder. For this project the product is a website consisting of two web pages. The web pages must be saved in .html format.

The symbol ![E] indicates supporting evidence to be saved in the EVIDENCE subfolder. This evidence must include the wireframes, a test log and the review.

Students must ensure that they present their evidence as clearly as possible. For example, scans of hand drawn wireframes must be legible.

Copyright

Students must comply with copyright. They should consider whether they have fully met this requirement. If not, it is not sufficient to simply acknowledge the sources. They must demonstrate their understanding of copyright issues and what would need to be done to make the products fit for use in the public domain. They must identify each individual asset that is an issue and explain what would need to be done to comply with copyright.

It is generally the case that suitable assets can be obtained from primary or copyright-free sources.

The Digital Applications moderators' toolkit

The Digital Applications moderators' toolkit specifies the file types that all moderators can view. It is each student's responsibility to ensure that his/her product and evidence **only** includes files in the listed formats.

The Digital Applications moderators' toolkit is published on the Pearson website. It will be updated as necessary.

Section 3: Supervision and feedback

Supervision and authentication of student work

With the exception of the research, asset gathering and feedback gathering activities listed below, students are only able to work on the SPB in a lesson, under the informal supervision of a teacher. This means that there must be adequate supervision to ensure that work can be authenticated.

These activities may be carried out away from the classroom:

- researching information and assets
- gathering assets
- gathering feedback on designs and products from test buddies.

All other work, including any manipulation or development of this material, must be done under supervision in the classroom. Any material brought back into the classroom must be checked by the teacher to ensure that it can be authenticated as the student's own work. At the end of the lesson all of the student's materials, paper-based and electronic, must be collected in, stored securely and handed back at the beginning of the next session.

The role of the test buddy and end-of-project reviewers

Each student will work with a test buddy(s) to receive feedback on his/her designs and web pages. Students must be made aware of what is expected of a test buddy: they can comment on the 'what' (what they think is good and what they think could be improved), but they must not feedback on the 'how' (e.g. how to make changes or specific solutions to any problems).

End-of-project reviewers comment, in the same way, on the final website.

What feedback can students receive, when?

The controlled assessment task for each unit can be divided into three broad stages. The level of feedback and collaboration allowed varies between stages, as outlined below.

Feedback and collaboration at each stage of the project

Stage 1

This stage starts with students being provided with the SPB. Students must work individually to come up with their own ideas.

The teacher may provide feedback on the ideas, such as highlighting strengths, weaknesses and possible problems with the planned approach, but the teacher must not suggest, or direct students towards specific solutions.

Students may receive feedback on their ideas from their test buddy (see The role of the test buddy and end-of-project reviewers) and use this to modify their ideas before seeking approval from the teacher.

Stage 2

Students must work individually to design, build and develop their website. The teacher may provide feedback on students' designs, such as highlighting strengths, weaknesses and problems with the planned designs, but the teacher must not suggest, or direct students towards, specific solutions.

The teacher must not provide feedback on a student's final website, but can suggest general questions for his/her to consider (which will be useful in the project review), e.g. 'how do you think x looks?', 'how do you think x could be improved?'

Students may receive feedback from their test buddy (see The role of the test buddy and end-of-project reviewers) on their work and incorporate this into their final website.

Stage 3

Students must work individually to complete the project review.

Before starting their project review, students must seek feedback from their end-of-project reviewer on the final website (see The role of the test buddy and end-of-project reviewers), which will be incorporated into the project review. No other feedback from any source is allowed and they cannot receive feedback on the project review itself.

Further support

Centres are reminded of the following additional support available:

- Ask the Expert

- Subject Adviser
  TeachingICT@pearson.com
  UK: 020 7010 2161
  Intl: +44 (0)20 7010 2161

- Sample marked learner work

- Chief examiners report

- Training from Pearson