|  |
| --- |
| **Stimulus: *Grid based layouts*** |
|  |

Digital Technologies project: digital solution

**Section 1: Explore and Develop**

|  |
| --- |
| Web content is the textual, visual, or aural content that is encountered as part of the user experience on websites. It may include – among other things – text, images, sounds, videos, and animations. |

1. **Analyse** and **determine** a plan for a static website for **educational purposes** to illustrate *web content* for a **cross-curricular subject**. The published content of your website requires teacher approval. As a guiding principle, approval of content will only be granted if the proposed content is deemed credible and of academic merit.

The website should address the following criteria:

|  |  |
| --- | --- |
| **Criteria** | **Description** |
| **Responsiveness** | The website must present optimal viewing across a wide range of devices |
| **User experience** | The end user experience for engaging website content must be positive |

Components of this website could include:

|  |  |
| --- | --- |
| **Component** | **Ideas** |
| **Presentation** | * grid layouts:
	+ grid template areas or columns, with proposed sizes, in either pixels, percentage, viewport units or other units.
	+ responsive layouts when grid is resized.
* aesthetics:
	+ padding, margins, proposed content alignment, font sizes, types, colour schemes (colours as hex codes), borders, gradients, or other design ideas.
	+ page layout designs, navigation bar plans, sample content on one planned page to illustrate proposed "look and feel".
* files:
	+ imported files or external libraries (such as Font Awesome)
	+ **JavaScript is not required** but welcome (focus on UX of site).
	+ relative files (web pages saved locally), and a *site map* of how these files link together.
 |
| **Content** | * *categorisation* or *hierarchy* of content; image, video or animation file names, types, sizes, and dimensions; downloadable content (e.g., PDF files), folder structure on disk. **Content per se is not required**.
 |

To complete this section, you should:

* Brainstorm the components of this website you wish to implement, and discuss, explain, or illustrate how you intend these components will be implemented.
* Complete this task within a maximum of one A3 landscape page.

**Section 2: Generate and Evaluate**

1. Generate a website that illustrates the working components or ideas determined in Section 1.
2. **#comment** in the source code of your main website page evidence of:
	1. Feedback from **sharing** and **collaboration** online (get users to test your site)
	2. Instructions how to:
		1. Add new content (use) and edit existing content (maintain)
		2. View content (transmission)

|  |
| --- |
| **Submission Requirements** |
| * Section 1: submit one digital document (maximum of one A3 landscape page)
 |
| * Section 2: submit all commented source code files (includes evaluation in comments)
 |
| **Important Notes** |
| * Use comments in code to explain understanding of HTML and CSS, as well as pointing out refinements and on-going testing of code.
 |
| * Keep backups of your files. Save every 10-15 minutes of work.
 |
| * Final testing, refinements, evaluations, and future recommendations should be neatly commented at the bottom of your most recent stable version file.
 |
| **Getting Started**  |
| * Look at the examples of past completed assignments shown in class for inspiration.
 |
| * Look through past class notes, and resources from the website to help you plan.
 |
| * Brainstorm some ideas on an A3 sheet of paper.
 |
| **Authentication Strategies** |
| * Acknowledge all code snippets, tutorials, advice, information, or help given.
 |
| * Students may be asked to explain their solution, or parts there-of, to determine authenticity.
 |

#### Appendix A: QCAA Years 9 and 10 Digital Technologies standard elaborations (contextualised)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **A** | **B** | **C** | **D** | **E** |
| **Knowledge and understanding** | *Representation of data* | *Section 1* | **comprehensive** explanation of:• why content data are separated from presentation | **detailed** explanation of:• why content data are separated from presentation | explanation of:• why content data are separated from presentation | **description** of:• why content data are separated from presentation | **statements about**:• why content data are separated from presentation |
| **Processes and production skills** | *Generating and designing; producing and implementing* | *Section 2A* | **purposeful** design and **proficient** implementation of modular programs | **effective** design and **effective** implementation of modular programs | design and implementation of modular programs | **partial** design and implementation of modular programs | **fragmented** design and implementation of modular programs |
| *Collaborating and sharing* | *Section 2B* | **proficient** sharing and collaboration online, with establishment of **comprehensive and effective** protocols for the use, transmission and maintenance of data and projects | **effective** sharing and collaboration online, with establishment of **effective** protocols for the use, transmission and maintenance of data and projects | sharing and collaboration online, with establishment of protocols for the use, transmission and maintenance of data and projects | **partial** sharing and collaboration online, **using** protocols for the use, transmission and maintenance of data and projects | **fragmented** sharing and collaboration online **using** protocols |

*This will be marked digitally via the submission platform.*

#### Appendix B: Australian Curriculum content descriptions

This assessment instrument is used to allow students to formally demonstrate the following Australian Curriculum Digital Technologies Years 9 and 10 Content Descriptions:

|  |
| --- |
| **Explicitly measured** |
| K&U | Analyse simple compression of data and how content data are separated from presentation |
| P&PS | Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language |
| P&PS | Create interactive solutions for sharing ideas and information online, taking into account safety, social contexts, and legal responsibilities |
| **Implicit to the task** (not formally measured) |
| K&U | Investigate the role of hardware and software in managing, controlling, and securing the movement of and access to data in networked digital systems |
| P&PS | Develop techniques for acquiring, storing, and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements |
| P&PS | Analyse and visualise data to create information and address complex problems, and model processes, entities and their relationships using structured data |
| P&PS | Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs |
| P&PS | Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics |
| P&PS | Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases |
| P&PS | Evaluate critically how student solutions and existing information systems and policies, take account of future risks and sustainability, and provide opportunities for innovation and enterprise |
| P&PS | Plan and manage projects using an iterative and collaborative approach, identifying risks, and considering safety and sustainability |

**Key**:

K&U: Knowledge and Understanding

P&PS: Processes and Production Skills