13DTM Internal Assessment Resource

Onslow College Values SRS Website

Design phase

Standard	AS 91901
Title	Apply user-experience methodologies to develop a design for a digital technologies outcome
Credits	**3**
Due Date	No later than 18 July 2021

Implementation phase

Standard	AS 91902	**Standard**	AS 91903
Title	Use complex techniques to develop a database	**Title**	Use complex techniques to develop a digital media outcome
Credits	**4**	**Credits**	**4**
Due Date	10 September 2021	**Due Date**	10 September 2021

This resource:

- clarifies the requirements of the assessment standards
- supports good assessment practice
- is subject to the school's assessment quality assurance process
- provides a relevant context to students in their school environment to ensure that submitted evidence is authentic

Instructions

- read ALL instructions carefully
- complete ALL tasks
- put your name at the top of any printed work as a header
- ensure that you have not breached the Copyright Act

Brief

In 2021, based on consultation with students, staff members, whānau, and the local community, Onslow College adopted a new set of school values.

One of the new values is **whakapapa:** "*this value is about the layers that make up who we are"*. This means we acknowledge and celebrate the diverse upbringings, cultures, and backgrounds that each student and staff member brings to the school.

As part of that, it is also important to knowledge the history of the school itself, its surrounding *whenua* (area), the peoples who contribute to it, and what Onslow College contributes back to the community.

A specific opportunity has been identified to educate students about the history of Onslow College, the local area, the *iwi* that make up the area, and relevant terms in *te reo Māori* that help explain Onslow College's *whakapapa* and the surrounding *whenua*.

Website

You are tasked with creating an interactive website that provides information about Onslow College's history, the surrounding *whenua* (land), local *iwi*, and *te reo Māori* terms. This information will be provided to you.

Further, students will be able to take Spaced Repetition tests to determine their understanding of the information. These tests can be taken by students at their own leisure. Teachers might also administer them within classes, such as Ako.

Specifications

Website specifications

- The website should be easy to navigate
- The website should have a professional appearance
- The website will have multiple pages, including administrative pages for the Spaced Repetition section
- The website should be styled using appropriate tools and techniques such as CSS to serve the purpose and end users
- Students and teachers can create accounts – but all non-Spaced Repetition content (information about school values, history, etc.) will be available without needing an account
- The website performs the functions required under Spaced Repetition specifications (below)

Spaced Repetition specifications

- Students and teachers will be able to register an account as part of the website
- Teachers can register student accounts on the student's or students' behalf
- Teachers can create classes, groupings of students
- Teachers can assign the student(s) to one of their classes
  - A student may belong to multiple classes
- Users will be able to take spaced repetition tests
- A user's first test score and highest test score will be recorded, along with the time that the test was completed (insert, update, delete)
- Teachers can see the results for the students in their class (search, filter, select) – students can **not** see this data for anybody but themselves (security, access levels)

Design

Introduction

This assessment involves applying user experience methodologies to develop a design for a digital technologies outcome.

Task

To address the brief, you must use user experience (UX) methodologies.

Ensure that you do the following:

- ☐ **Carefully read the brief**
- ☐ Analyse existing digital media outcomes that are similar to the desired outcome as described in the brief
- ☐ Consult with the stakeholders to understand the requirements of the website in terms of design, functionality, and intended audience
- ☐ Use the information gained from stakeholder feedback to start designing
- ☐ Generate your initial design ideas and draw designs for the website
- ☐ Use feedback from stakeholders to help develop your designs and refine your ideas in order to address the brief
- ☐ Evaluate your feedback from stakeholders and the functional modelling to justify the selection of the design ideas you will develop
- ☐ Produce a conceptual design for the website or program that addresses your brief
- ☐ Justify the potential fitness for purpose of the proposed website or program

Final submission

Your final submission might include, for example:

- UX methodological outcomes, such as wireframes, user personas, etc.
- User research that informs your creation of design ideas
- Design ideas that you have generated, from initial stages through to final design
- Evidence of testing of design ideas through functional modelling in an iterative manner
- Use of evaluation of your findings from functional modelling and research/feedback to select and justify your design ideas

- Examples of design ideas that evolved as you reviewed/refined your ideas
- Justification of how and why your design addresses the brief

Database

Introduction

This assessment involves using complex techniques to develop a database.

Task

To address the brief, you must use complex techniques to design the structure of the data using appropriate tools and techniques to organise, query, and present data for the specified purpose and end users.

Ensure that you do the following:

- ☐ **Carefully read the brief**
- ☐ Design the structure of the data according to best principles, such as normalisation, using appropriate types, etc.
  - ☐ Structure, organise, and query the data logically
- ☐ Create relevant documentation for the design
- ☐ Apply appropriate data integrity and testing procedures
  - ☐ Use information from testing procedures to improve the quality of the outcome
- ☐ Iteratively improve the design, development, and testing process throughout
- ☐ Use efficient tools and techniques in the outcome's production
- ☐ Present the data effectively for the purpose and end users
- ☐ Address relevant implications

Complex techniques includes a selection from:

- ☐ Structuring the data using multiple tables or nodes
- ☐ Creating queries which insert, update, delete, or modify data
- ☐ Creating customised data displays from multiple tables or nodes (e.g. reports, PDFs, web pages, dashboards, program interfaces)
- ☐ Dynamically linking data between the database and a front-end display
- ☐ Applying data access permissions as appropriate to the outcome

Digital Outcome

Introduction

This assessment involves using complex techniques to develop a digital media outcome based on your design.

Task

- [ ] **Carefully read the brief**
- [ ] Create the pages
  - [ ] Create multiple pages
  - [ ] SRS and admin pages are connected to the database
  - [ ] Use CSS and any other technologies as necessary
- [ ] Follow industry standards and conventions
  - [ ] Use comments in your website code to show what is happening
  - [ ] Ensure that your code (HTML, CSS, JS, PHP, etc.) is valid
  - [ ] Keep your styles external to the HTML document
- [ ] Apply user experience principles relevant to the purpose of the outcome
  - [ ] Use these principles to improve the quality of the outcome
  - [ ] Ensure your website follows usability heuristics
  - [ ] Ensure the layout demonstrates a sound hierarchy of information
  - [ ] Ensure the purpose and functionality of each page is clear
  - [ ] Test and review with users to ensure the website is intuitive and that elements are discoverable
- [ ] Apply appropriate data integrity and testing procedures
  - [ ] Keep a development diary with all of your testing (including screenshots and commentary)
  - [ ] Test for functionality, design, accuracy of text and information
  - [ ] Test against user experience principles
  - [ ] Test the outcome using different web browsers and devices
  - [ ] Test the functionality of the SRS features as a guest, as a student, as a teacher
  - [ ] Test that the outcomes use valid HTML, CSS, JS, PHP, etc. using a validator
- [ ] Use efficient tools and techniques in the outcome's production
- [ ] Address relevant implications

Complex techniques includes:

- ☐ Non-core functionality
- ☐ Sophisticated digital effects
- ☐ **Applying industry standards or guidelines**
- ☐ Responsive design for use on multiple devices
- ☐ Integration of original media assets
- ☐ **Dynamic data handling and interactivity**
- ☐ Automation through scripts

Brief