**OCR-set Assignment**

**Sample Assessment Material**

OCR Level 3 Alternative Academic Qualification Cambridge Advanced National in Computing: Application Development

Unit F164: Website development

Scenario Title: Wind & Waves

Give to candidates on or after X June 20XX.
Valid for assessment until 20XX. For use by students beginning the qualification in September 20XX and finishing by 20XX or 20XX.

This is a sample OCR-set assignment which should only be used for practice**.**

This assignment **must not** be used for live assessment of students.

The live assignments will be available on our secure website, ‘Teach Cambridge’.

**The OCR administrative codes linked to this unit are:**

* unit entry code F164
* certification code H129

**The regulated qualification number linked to this unit is:** 610/3975/5

**Duration**

About 15 hours of supervised time (GLH)

(work that **must** be completed under teacher supervised conditions)

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# Information and instructions for Teachers

## Using this assignment

This assignment provides a scenario and set of related tasks reflect the development of a website prototype for a specific purpose based on a set of client requirements.

The assignment:

* Is written so that students have the opportunity to meet the requirements of all assessment criteria for the unit.
* Will tell students if their evidence must be in a specific format. If the task does not specify a format, students can choose the format to use.
* **Must** be completed under teacher supervision. Any unsupervised time allowed will be stated below and explained in the assessment guidance.

We have estimated that this assignment will take about 15 hours of supervised time to complete. Students should need approximately:

* 5 hours to complete Task 1.
* 8 hours to complete Task 2.
* 2 hours to complete Task 3.

You **must**:

* Use an OCR-set assignment for summative assessment of students.
* Familiarise yourself with the assessment criteria and assessment guidance for the tasks. These are given at the end of each student task. They are also with the unit content in **Section 4** of the Specification.

Assessment guidance is only given where additional information is needed. There might not be assessment guidance for each criterion.

* Make sure students understand that the assessment criteria and assessment guidance tell them in detail what to do in each task.
* Read and understand **all** the rules and guidance in **Section 6** of the Specification **before** your students start the set assignments.
* Make sure that your students complete the tasks and that you assess the tasks fully in line with the rules and guidance in **Section 6** of the Specification.
* Give your students the **Application Development**[**Student guide to NEA assignment**](https://www.ocr.org.uk/Images/620503-student-guide-to-nea-assignments.pdf)**s** **before** they start the assignments.

You **must** **not**:

* Use live OCR-set assignments for practice or formative assessment. This sample assessment material **can** be used for practice or formative assessment.
* Use this sample assessment material for live assessment of students.
* Allow group work for **any** task in this assignment.
* Change any part of the OCR-set assignments or assessment criteria.

**Pages 1-4** are for teachers only. Please do **not** give **Pages 1-4** to your students.

You can give **any** or **all** of the pages **that follow** to your students.

# Tasks for students and assessment criteria

**Unit F164: Website development**

**Scenario Title: Wind & Waves**

Give to candidates on or after X June 20XX.Valid for assessment until 20XX. For use by students beginning the qualification in September 20XX and finishing by 20XX or 20XX.

## Scenario

‘Wind & Waves’ is a seaside shop. It hires out water sports equipment such as kayaks, surfboards and wetsuits. Most of its business is from people on holiday. Although the shop does well in the summer season, the owners are looking for ways that they can attract more customers and hire out more products all year round.

The owners have decided that they want to make the most of new technologies available to promote the shop, aiming at a target audience aged between 16 and 30 years.

You have been asked to create an interactive multimedia website that will promote the shop and its products.

The owners want the interactive multimedia website to reflect the fact that the shop is near the sea and supplies equipment for water-based activities. They want the website to allow potential customers to explore what ‘Wind & Waves’ offers in an exciting and engaging way.

They have asked that the website uses a range of interactive features and multimedia effects to create this experience. The owners are also aware of how people use their mobile devices to access the internet and want the website to work on mobile devices.

## Task 1

**Planning and designing the high-fidelity website prototype**

Topic Areas 1, 2 and 4 are assessed in this task.

**The task is:**

Plan and design the website prototype for ‘Wind & Waves’.

You will:

* Document the requirements.
* Plan and design the website prototype’s hosting requirements, structure, layout and content.
* Describe how the website prototype will be tested.

Your evidence **must** include:

* Written evidence.
* Website planning and design documentation.

**Use the assessment criteria below to tell you what you need to do in more detail.**

|  |  |  |
| --- | --- | --- |
| **Pass** | **Merit**  | **Distinction** |
| **P1: Describe** the client and user requirements for the website prototype. (PO2) | **M1:** **Explain** the Libraries/ Frameworks required for the website prototype development. (PO2) | **D1:** **Justify** the Search Engine Optimisation (SEO) techniques to be used in the website prototype. (PO3) |
| **P2:** **Explain** the hosting requirements for the website prototype. (PO2) |
| **P3: Create** a design of the website structure, navigation system and a content overview. (PO4) | **M2: Explain** how the house style for the website prototype is appropriate for the client requirements. (PO2) | **D2:** **Assess** website prototype design choices in relation to W3C and accessibility compliance. (PO3) |
| **P4: Create** a design of the webpage template(s) to show the page layout and the house style. (PO4) |
| **P5:** **Identify** assets required for the website prototype. (PO2) |  |  |
| **P6: Describe** how the website prototype will be tested. (PO2) | **M3: Justify** the appropriateness of the testing. (PO3) |  |

**Assessment guidance**

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion.  It is only given where it is needed. You must read this guidance before you complete your evidence.

|  |  |
| --- | --- |
| **Assessment Criteria** | **Assessment guidance** |
| **P1** | * Students **must** describe both the client **and** user requirements. Students **must** expand the description into specific requirements which can be used as criteria to review against in **Task 3**.
 |
| **P2** | * Students **must** explain the hosting requirements for the website prototype. The explanation of the hosting requirements **must** include the content in Topic Area 2.1.
 |
| **P3** | * Students **must** create a design of the website structure for the proposed website prototype. Students **could** use the website planning and design tools in Topic Area 2.2. The site plan **must** include the navigation system and a summary of individual page content. The site plan **must** contain enough detail for it to be interpreted by someone who hasn’t seen it before.
 |
| **P4** | * Students **must** create a design for the webpage template(s). Students **could** use the website planning and design tools in Topic Area 2.2. The design **must** show how the pages will be laid out. Through the design, students **must** also define the house style for the website prototype. The designs **must** contain enough detail for them to be interpreted by someone who hasn’t seen them before.
 |
| **P5** | * Students **must** identify the essential assets required for the website prototype. To achieve this criterion, students are not required to identify all non-essential assets. This assessment criterion could be evidenced in an assets list.
 |
| **P6** | * Students **must** describe the testing methods and testing types they will use to test the website prototype and the elements of the website prototype they intend to test. The description of how the software solution will be tested **could** include the content in Topic Area 4.1.
 |
| **M1** | * Students **must** explain which Libraires/Frameworks they are using to develop the website prototype. The explanations **must** include how the chosen Libraries/Frameworks will allow the website prototype to function as intended.
 |
| **M2** | * Students **must** explain how the house style(s) defined in P4 is appropriate for the client as detailed in the scenario.
 |
| **M3** | * Students **must** justify the approach to testing detailed in P6.
 |
| **D1** | * Students **must** explain how the search engine techniques they intend to use will ensure the website prototype is visible to search engines.
 |
| **D2** | * Students **must** produce an assessment of how the design choices for the website prototype meet current W3C and accessibility guidelines.
 |

## Task 2

**Creating the high-fidelity website prototype**

Topic Areas 1, 2 and 3 are assessed in this task.

**The task is:**

Create the website prototype that you planned and designed in **Task 1**.

You will:

* Create an appropriate website structure.
* Source and prepare assets for use in the website prototype.
* Use web authoring software tools to create the website prototype.

Your evidence **must** include:

* The website structure.
* The final website prototype in a format which allows it to be viewed/used without installing any specialist software **or** video/screen recordings demonstrating the website prototype.

**Use the assessment criteria below to tell you what you need to do in more detail.**

|  |  |  |
| --- | --- | --- |
| **Pass** | **Merit** | **Distinction** |
| **P7:** **Create** an appropriate website structure for the website prototype.(PO4) |  |  |
| **P8: Prepare** assets appropriate for use as components in the website prototype. (PO4) |
| **P9: Create** the interactive and navigational components appropriate for the website prototype. (PO4) | **M4:** **Implement** W3C and accessibility compliance in the website prototype. (PO4) | **D3:** **Implement** appropriate Search Engine Optimisation (SEO) techniques in the website prototype. (PO4) |
| **M5: Implement** appropriateresponsive design features in the website prototype. (PO4) |
| **P10:** **Create** the website prototypeusingweb authoring software tools. (PO4) | **D4: Use** appropriate Libraries/Frameworks to create the website prototype. (PO4) |
| **M6: Use** Cascading Style Sheets (CSS) to implement an appropriate and consistent style in the website prototype. (PO4) |

**Assessment guidance**

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion.  It is only given where it is needed. You must read this guidance before you complete your evidence.

|  |  |
| --- | --- |
| **Assessment Criteria** | **Assessment guidance** |
| **Task 2** | * Ideally students will create the website prototype planned and designed in **Task 1**. However, if students deviate from the plan(s) and/or design(s) they should not be penalised when assessing **Task 2**.
* To confirm assessment decisions made for this task, the OCR assessor will need to be able to see the final website prototype. Therefore, students **must** provide either:
	+ The final website prototype in a format which allows it to be viewed/used without the need to install any specialist software.
	+ Video/screen recordings of the final website prototype being demonstrated.
 |
| **P7** | * Students **must** create a website structure including the folder structure, site pages structure and index page location. This assessment criterion **could** be evidenced in screen shots or photographs showing the website folders and files.
 |
| **P8** | * Students **must** prepare assets sourced for use as components in the website prototype. Topic Area 3.1 has examples of techniques students could use to prepare assets**.** The final website prototype will be sufficient evidence for this assessment criterion.
 |
| **P9** | * Students **must** create interactive and navigational components to enable the website to function as intended. Students **could** use the web authoring software tools in Topic Area 3.3. The final website prototype will be sufficient evidence for this assessment criterion.
 |
| **P10** | * Students **must** create the prototype website using the web authoring tools in Topic Area 3.2. The final website prototype will be sufficient evidence for this assessment criterion.
 |
| **M4** | * Students **must** add W3C and accessibility compliance to the website prototype using the web authoring software tools in Topic Area 3.3. The final website prototype will be sufficient evidence for this assessment criterion.
 |
| **M5** | * Students **must** add appropriate responsive design features to the website prototype using the web authoring software tools in Topic Area 3.3. Students **must** ensure the website prototype functions as intended on the devices detailed in the scenario. This assessment criteria **could** be evidenced in videos or photographs showing the website prototype working as intended on the devices detailed in the scenario
 |
| **M6** | * Students **must** use CSS to implement a consistent style in the website prototype using the web authoring software tools in Topic Area 3.3. The style must be appropriate for the requirements detailed in the scenario. Students **must** include evidence of the CSS styles implemented. This assessment criterion **could** be evidenced in screen shots, photographs or video/screen recordings showing the CSS styles implemented.
 |
| **D3** | * Students **must** add Search Engine Optimisation (SEO) techniques to the website prototype using the web authoring software tools in Topic Area 3.3. The techniques used **must** enable the website prototype to be visible to search engines. This assessment criterion **could** be evidenced in screen shots, photographs or video/screen recordings showing the techniques used.
 |
| **D4** | * Students **must** make use of Libraries/Frameworks to meet the requirements detailed in the scenario. Students **must** include evidence of the Libraries/Frameworks they have used. This assessment criterion **could** be evidenced in screen shots, photographs or video/screen recordings showing the Libraries/Frameworks used.
 |

Task 3
**Testing and reviewing the high-fidelity website prototype**

Topic Areas 4 and 5 are assessed in this task.

**The task is:**

Test and review the website prototype that you created in **Task 2**.

You will:

* Test the website prototype using the testing described in **Task 1**.
* Review the website prototype.

Your evidence **must** include:

* Documented test results.
* Written evidence.

**Use the assessment criteria below to tell you what you need to do in more detail.**

|  |  |  |
| --- | --- | --- |
| **Pass** | **Merit** | **Distinction** |
| **P11:** **Test** the website prototype and document results.(PO4) | **M7: Analyse** test results documenting any required remedial action. (PO3) | **D5: Discuss** potentialimprovements and further development opportunities for the website prototype. (PO3) |
| **P12: Assess** the suitability of the website prototype for meeting the requirements. (PO3) |  |

**Assessment guidance**

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion.  It is only given where it is needed. You must read this guidance before you complete your evidence.

|  |  |
| --- | --- |
| **Assessment Criteria** | **Assessment guidance** |
| **P11** | * Students **must** test the website prototype and document results. Ideally, students will use the approach described and justified in **Task 1**. However, if students deviate from the proposed testing they should not be penalised.
* Students **must** have evidence of the actual test results. For example, screen shots, photographs or video/screen recordings.
 |
| **P12** | * Students **must** assess the suitability of the website prototype for meeting the requirements in Topic Area 5.1.
 |
| **M7** | * Students **must** analyse the test results generated in P11 and explain any remedial action required to resolve the issues found during testing. Students are not expected to fix errors found in the website prototype during final testing.
 |
| **D5** | * Having assessed the suitability of the website prototype (P12) and analysed test results (M7), students **must** discuss potential improvements and further developments to the website prototype.
 |

# Template for test table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test number** | **Test type** | **Test description**  | **Test data** | **Expected result** | **Actual result** | **Remedial action required** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

# NEA command words

The table below shows the command words that may be used in the NEA assignments and/or assessment criteria.

|  |  |
| --- | --- |
|  **Command Word**  |  **Meaning**  |
|  **Adapt**  | * Change to make suitable for a new use or purpose
 |
|  **Analyse**  | * Separate or break down information into parts and identify their characteristics or elements
* Explain the different elements of a topic or argument and make reasoned comments
* Explain the impacts of actions using a logical chain of reasoning
 |
|  **Assess**  | * Offer a reasoned judgement of the standard or quality of situations or skills. The reasoned judgement is informed by relevant facts
 |
|  **Calculate**    | * Work out the numerical value. Show your working unless otherwise stated
 |
|  **Classify**  | * Arrange in categories according to shared qualities or characteristics
 |
|  **Compare**  | * Give an account of the similarities and differences between two or more items, situations or actions.
 |
|  **Conclude**  | * Judge or decide something
 |
|  **Describe** | * Give an account that includes the relevant characteristics, qualities or events
 |
|  **Discuss** (how/whether/etc)  | * Present, analyse and evaluate relevant points (for example, for/against an argument) to make a reasoned judgement
 |
|  **Evaluate**  | * Make a reasoned qualitative judgement considering different factors and using available knowledge/experience
 |
|  **Examine**  | * To look at, inspect, or scrutinise carefully, or in detail
 |
|  **Explain**  | * Give reasons for and/or causes of something
* Make something clear by describing and/or giving information
 |
|  **Interpret**  | * Translate information into recognisable form
* Convey one’s understanding to others, e.g. in a performance
 |
|  **Investigate**  | * Inquire into (a situation or problem)
 |
|  **Justify**    | * Give valid reasons for offering an opinion or reaching a conclusion
 |
|  **Research**  | * Do detailed study in order to discover (new) information or reach a (new) understanding
 |
|  **Summarise**  | * Express the most important facts or ideas about something in a short and clear form
 |

We might also use other command words but these will be:

* Commonly used words whose meaning will be made clear from the context in which they are used
* Subject specific words drawn from the unit content.