Set assignment

DRAFT

LEVEL 3 CAMBRIDGE ADVANCED NATIONAL (AAQ) IN

COMPUTING: APPLICATION DEVELOPMENT

Certificate H029

Extended Certificate H129

For first teaching in 2025

F162: Designing and communicating UX/UI solutions

Introduction

This is Sample Assessment Material (SAM). It is an example set assignment that we publish alongside a new specification to help illustrate the intended style and structure of our set assignments.

During the lifetime of the qualification, updates to the set assignment template may happen. We always recommend you look at the most recent set of past set assignments where available.

Tell us what you think

Your feedback plays an important role in how we develop, market, support and resource qualifications now and into the future. Here at OCR, we want teachers and students to enjoy and get the best out of our qualifications and resources, but to do that we need honest opinions to tell us whether we're on the right track or not. That's where you come in.

You can email your thoughts to **ProductDevelopment@OCR.org.uk** or visit the **OCR feedback page** to learn more about how you can help us improve our qualifications.

Designed and tested with teachers and students

Helping young people develop an ethical view of the world

Equality, diversity, inclusion and belonging (EDIB) are part of everything we do

Summary of updates

Date	Version	Page number	Summary of change
July 2023	1 DRAFT	All	Creation of document

Teacher support

We have a range of support services to help you at every stage, from preparation to delivery.

Our teacher support is designed to make teaching our qualifications straightforward, whether you are an experienced teacher, new to teaching, new to OCR, or not a subject specialist of the qualification you are teaching.

We offer free access to services such as Access to Scripts, ExamBuilder and ActiveResults, and you'll find comprehensive teaching resources and a range of professional development courses on our teacher website, Teach Cambridge.

Our OCR subject advisors provide support and information to centres, including:

- Specification and non-exam assessment advice

- Updates on resource developments and training opportunities

- Information on our subject networks giving an opportunity to share ideas and expertise.

Further help and support

Visit our subject pages to find out more about the assessment and request trial access to **Teach Cambridge**.

Not a registered or approved OCR centre? Discover the benefits of becoming one on the **OCR website**.

Have more questions about teaching OCR qualifications? Explore our **Online Support Centre** or contact our **Customer Support team**.

Contact details are available on the **final page** of the SAM.

Work with us

As one of the major UK exam boards, OCR is responsible for creating and marking exams taken by over a million students each year. We work with over 10,000 professionals to create, check, mark and moderate our assessments.

If you would like to find out more about becoming an OCR examiner, please visit **our website** for more information.

People and planet

OCR is part of Cambridge University Press & Assessment, which has clear commitments to champion sustainability, diversity, trust and respect for our people and planet.

We are committed to supporting a curriculum that helps young people develop an ethical view of the world. This enables them to take social responsibility, understand environmental issues and prepare them for the green jobs of the future.

Our equality, diversity, inclusion and belonging principles are that we:

- are respectful and considerate

- celebrate differences and promote positive attitudes to belonging

- include perspectives that reflect the diverse cultural and lifestyle backgrounds of our society

- challenge prejudicial views and unconscious biases

- promote a safe and supportive approach to learning

- are accessible and fair, creating positive experiences for all

- provide opportunities for everyone to perform at their best

- are contemporary, relevant and equip everyone to live and thrive in a global, diverse world

- create a shared sense of identity in a modern mixed society with one humanity.

To learn more, including our work on accessibility in our assessment materials, visit our People and planet page.

OCR-set Assignment

Sample Assessment Material

OCR Level 3 Cambridge Advanced National (AAQ) in Computing: Application Development (Certificate)

OCR Level 3 Cambridge Advanced National (AAQ) in Computing: Application Development (Extended Certificate)

F162: Designing and communicating UX/UI solutions

Scenario Title: Westwood Way Dental Practice

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   F162

- certification code   H029/H129

The regulated qualification numbers linked to this unit are: TBC

Duration

About 15 hours of supervised time (GLH)
(work that **must** be completed under teacher supervised conditions)

Contents

Information and instructions for Teachers
Using this assignment

This assignment provides a scenario and set of related tasks that reflect how people working in the application development sector would design and communicate user experience (UX) and user interface (UI) solutions 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 exceptions to this will be stated in the assessment guidance.

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 assignments 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 F162: Designing and communicating UX/UI solutions

Scenario Title: Westwood Way Dental Practice
Scenario

The manager of Westwood Way Dental Practice wants you to design an interface solution for an application to book and manage dental appointments. The application will be used by both dental practice staff and patients.

The dental practice has four dentists and one dental hygienist.

The interface on the application must allow patients to:

- Sign up to use the application using their patient number. Patient numbers can be obtained from dental practice staff.
- See available appointments for both the dentists and the hygienist.
- Book appointments with a dentist.
- Book appointments with the hygienist.
- See the details of booked appointments. For example, date, time, dentist/hygienist
- Cancel a booked appointment.
- Update personal details. For example, a change of home address and/or contact details.
- Update relevant medical information, For example, changes in prescribed medication and/or allergies.
- See the details of appointments attended in the last year. For example, date, time, dentist/hygienist.

The interface on the application must allow the dentists and the hygienist to:

- Sign up to use the application using their staff number.
- Block out appointment slots when they are not available. For example, when on holiday.
- See a schedule of future appointments booked by patients.

The interface on the application should be appropriate for people with limited experience of using applications.

Task 1
Planning the UX/UI solution

Topic Areas 1 and 2 are assessed in this task.

The task is:

Identify the requirements for Westwood Way Dental Practice's UX/UI solution.

Develop ideas and a design concept for the UX/UI solution.

You will:

- Document requirements.
- Document UX/UI solution ideas and a design concept.

Your evidence **must** include:

- Written evidence.
- UX/UI solution ideas and a design concept.

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 UX/UI solution.	**M1: Explain** how the functional and non-functional requirements impact the design of the UX/UI solution.	**D1: Create** use case diagrams to show users and their interactions with the UX/UI solution.
P2: Describe the functional and interface requirements for the UX/UI solution.		
P3: Document appropriate UX/UI solution ideas.	**M2: Document** an appropriate UX/UI design concept.	

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 descriptions into specific requirements which can be used as criteria to review against in Task 4. This assessment criterion **could** be evidenced in a requirements specification.
P2	- Students **must** describe what the UX/UI solution should be capable of doing to meet the user requirements. Students **must** also describe the requirements of the user interface. This assessment criterion **could** be evidenced in a requirements specification.
P3	- Students **must** document ideas for the UX/UI solution based on the requirements described in P1 and P2. Students **must** use at least **one**

	of the tools and techniques in Topic Area 2.2. Students **must** document at least **two** ideas on a mind map, for example.
M1	• Students **must** explain how the requirements detailed in P1 and P2 impact the design of the UX/UI solution. Where students do not achieve P1 and/or P2, it is still possible to achieve M1. This assessment criterion **could** be evidenced in a requirements specification.
M2	• Students **must** document the UX/UI design concept using at least **one** of the tools and techniques in Topic Area 2.2. There **must** be a clear relationship between the ideas documented in P3 and the UX/UI design concept. Where students do not achieve P3 it is still possible to achieve M2. The UX/UI design concept **must** be appropriate for the client and user requirements.
D1	• Students **must** create use case diagrams which that show how users specified in the scenario will interact with the UX/UI solution. The diagrams must cover **all** interactions as detailed in the scenario. When creating the use case diagrams, students **must** use a standard and consistent approach for symbols and notation.

Task 2
Designing the UX/UI solution

Topic Areas 1 and 3 are assessed in this task.

The task is:

Design the UX/UI solution that you planned in **Task 1**.

You will:

- Create design diagrams for the UX/UI solution.
- Create a high-fidelity prototype for the UX/UI solution.

Your evidence **must** include:

- Design diagrams.
- The high-fidelity prototype in a format which allows it to be viewed without the need to install any specialist software **or** video/screen recordings demonstrating the high-fidelity prototype.

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

Pass	Merit	Distinction
P4: Create diagrams that show the interaction flows and navigation routes for the UX/UI solution.	**M3: Explain** how navigation design principles have been applied to the UX/UI solution.	
P5: Create diagrams that show the steps within processes for the UX/UI solution.	**M4: Explain** how Schneiderman's 8 Golden Rules of interface design have informed the UX/UI solution.	
P6: Create diagrams that show user steps to complete actions for the UX/UI solution.		
P7: Create a high-fidelity prototype for the UX/UI solution.		**D2: Implement** error handling and feedback appropriate for the UX/UI solution.
P8: Describe how the UX/UI solution is appropriate for users.		**D3: Assess** the UX/UI solution in relation to UX/UI design psychology.
P9: Check the UX/UI solution against audit and interface metrics.	**M5: Justify** the appropriateness of the checks.	**D4: Assess** the UX/UI solution in relation to UX/UI interface standards.

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 design the UX/UI solution planned in **Task 1**. However, if students deviate from their plan(s) they should not be penalised when assessing **Task 2**.
	• To confirm assessment decisions made for some of the criteria for this task, the OCR assessor will need to be able to see the final high-fidelity prototype. Therefore, students **must** provide either:
	  o The final high-fidelity prototype in a file format which allows it to be viewed without the need to install any specialist software.
	  o Video/screen recordings of the final high-fidelity prototype being demonstrated.

P4	• Students **must** create diagrams which show the interaction flows and navigation routes through the UX/UI solution and how the screens will link together. Students **must** use at least **one** of the design tools in Topic Area 3.1.1. The diagrams **must** contain enough detail to enable them to be interpreted by someone who hasn't seen them before.
P5	• Students **must** create diagrams which show the steps to be completed and decisions to be made for each process required in the UX/UI solution. Students **must** use at least **one** of the design tools in Topic Area 3.1.1. The diagrams **must** contain enough detail for them to be interpreted by someone who hasn't seen them before.
P6	• Students **must** create diagrams which show how users will complete actions when using the UX/UI solution. Students **must** use at least **one** of the design tools from Topic Area 3.1.1. The diagrams **must** contain enough detail for them to be interpreted by someone who hasn't seen them before.
P7	• Students **must** create a high-fidelity protype for the UX/UI solution that meets the requirements detailed in the scenario. The high-fidelity prototype can be created in generic software applications or interface prototyping software. The final UX/UI solution high-fidelity prototype will be sufficient evidence for this assessment criterion.
P8	• Students **must** describe how the UX/UI solution will meet the needs of the users specified in the scenario. Topic Area 1.2 details application end use considerations which may be applicable to the scenario.
P9	• Students **must** check the appropriateness and suitability of the UX/UI solution using UI audit and interface metrics in Topic Area 3.2.
M3	• Students **must** explain how they have applied each of the navigation design principles in Topic Area 1.3 to the UX/UI solution.
M4	• Students **must** explain how Schneiderman's 8 Golden Rules of interface design in Topic Area 1.3 have informed the UX/UI solution. The criterion is achieved if students explain how at least **four** of Schneiderman's 8 Golden Rules have informed the UX/UI solution.

M5	• Students must justify the checking used in P9.
D2	• Students **must** add appropriate error handling and feedback to the high-fidelity prototype created in P7. The UX/UI solution **must** handle user errors and provide informative feedback enabling users to self-resolve issues. The final UX/UI solution high-fidelity prototype will be sufficient evidence for this assessment criterion. Where students do not achieve P7, it is still possible to achieve D2.
D3	• Students **must** assess the UX/UI solution in relation to the **three** design psychology principles in Topic Area 1.4. Students **could** also consider other psychology principles they have studied.
D4	• Students **must** assess the UX/UI solution in relation to the **four** UX/UI interface standards in Topic Area 1.6.

Task 3
Communicating the UX/UI solution

Topic Area 4 is assessed in this task.

The task is:

Communicate the UX/UI solution that you designed in **Task 2**.

You will:

- Create a UX/UI solution showcase.
- Deliver the UX/UI solution showcase.

Your evidence **must** include:

- UX/UI solution showcase
- Teacher observation record form signed by you and your teacher.

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

Pass	Merit	Distinction
P10: Create a UX/UI showcase appropriately designed for the client.	**M6: Use** techniques for effective communication to deliver the UX/UI showcase.	
P11: Deliver a UX/UI showcase that communicates the UX/UI solution using content appropriate for the client.		

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 3	• When creating the UX/UI showcase, students will need to decide on an appropriate showcase format. Topic Area 4.1 includes examples of showcase formats. However, this is not an exhaustive list and students could choose an alternative appropriate format.
	• To reduce assessment burden, centres could consider limiting the duration of students' UX/UI showcases.
	• Where relevant to the showcase format, centres and/or students could record the delivery of UX/UI showcases for the purpose of internal assessment. However, please note there is no requirement to submit audio or visual recordings of students delivering UX/UI showcases for moderation.

P10	• Students **must** create a UX/UI showcase appropriately designed for the client. Topic Area 4.1 includes showcase considerations relating to design. To confirm assessment decisions, the OCR assessor will need to consider the appropriateness of the UX/UI showcase design. Therefore, students **must** provide suitable evidence in the form of a slide deck, screenshots, photographs, screen recordings, presentation notes, a script, supporting visual stimuli, for example. There is no requirement to submit audio or visual recordings of students delivering UX/UI showcases.
P11	• Students **must** deliver a UX/UI showcase that communicates the UX/UI solution using content appropriate for the client. Students **must** use a showcase format that is appropriate for the client. Topic Area 4.1 includes showcase considerations relating to content. To confirm assessment decisions, the OCR assessor will need to consider the appropriateness of the UX/UI showcase content. Students **must** provide suitable evidence in the form of a slide deck, screenshots, photographs, screen recordings, presentation notes, a script, supporting visual stimuli, for example. There is no requirement to submit audio or visual recordings of students delivering UX/UI showcases.
M6	• Students **must** deliver the UX/UI showcase content using the techniques for effective communication in Topic Area 4.2. To confirm assessment decisions, the OCR assessor will need to consider students' use of techniques for effective communication. Centres **must** provide an individualised, Teacher Observation Record (TOR) Form for each student to evidence they have met this criterion. Students must also read and sign the teacher observation record form. The criterion is achieved if students demonstrate at least **three** of the techniques for effective communication.

Task 4
Reviewing the UX/UI solution

Topic Areas 1 and 5 are assessed in this task.

The task is:

Review the UX/UI solution that you designed in **Task 2**.

You will:

- Review the UX/UI solution.
- Review the processes used to plan and design the UX/UI solution.

Your evidence **must** include:

- Written evidence.

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

Pass	Merit	Distinction
P12: Describe the strengths and weaknesses of the UX/UI solution.	**M7: Discuss** potential improvements to the UX/UI solution.	
		D5: Evaluate the effectiveness of the processes used to plan and design the UX/UI solution.

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
P12	• Students **must** describe the strengths and weaknesses of the UX/UI solution in relation to the requirements identified in **Task 1** and the design principles in Topic Area 1.3.
M7	• Having considered the strengths and weaknesses of the UX/UI solution (P12), students **must** discuss how the UX/UI solution could be improved. Students **could** consider the potential improvements in Topic Area 5.2.
D5	• Students **must** evaluate the effectiveness of processes used to plan and design the UX/UI solution. Students **must** incorporate an assessment of the effectiveness of the tools and techniques used.

Teacher Observation Record Form

Use this form to record what is observed.
Read the **guidance notes** below the form **before** you complete the form.

OCR Level 3 Cambridge Advanced National (AAQ) in Computing: Application Development (Certificate)

OCR Level 3 Cambridge Advanced National (AAQ) in Computing: Application Development (Extended Certificate)

Unit number:	F162
Unit title:	Designing and communicating UX/UI solutions
Task number:	3
Task title:	Communicating the UX/UI solution

Student's name:	
Date the activity was completed:	

What extra evidence is attached to the form?	

The **teacher** fills in this section:

This activity relates to Assessment Criterion **M6**
You **must** describe in detail how the student demonstrated techniques for effective communication while delivering the UX/UI showcase. Students **must** have clearly demonstrated **at least three** of the techniques in Topic Area 4.2 (clarity, coherence, completeness, conciseness, correctness, courteousness).

Teacher's name:	
Teacher's signature:	
Date:	

The **student** fills in this section:

I agree with my teacher's description of how I completed this activity	Yes ☐
Use this space to make any extra comments.	
Student's signature:	
Date:	

Guidance notes

Both the teacher **and** the student are responsible for completing this form.

The **teacher must**:
- Use the form to describe in detail what they observed the student doing.
- Give contextualised details of what the student did and how this relates to the Assessment Criteria.
- Say how well the activity was completed in relation to the Assessment Criteria with reasons.
- Share what they have written with the student and offer the opportunity to discuss if the student disagrees with what is written.
- Reach agreement with the student before the work is submitted to OCR.
- Sign and date the form as evidence of agreement.

The **student must**:
- Reach agreement with the teacher before the work is submitted for moderation.
- Use the form to show that they agree with the teacher's record of the activity observed.
- Sign and date the form as evidence of agreement.

The form **must**:
- Be accompanied by extra evidence, as required by the task.
- Provide evidence that is individual to the student.

The form **must not**:
- Contain a simple repeat of the Assessment Criteria.
- Contain just a list of skills.
- Be completed by anyone other than the teacher observing the activity and the student completing the activity.
- Be written by the student for the teacher to sign.
- Be used to evidence achievement of a whole unit or task in isolation.

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.

Examine
with us

- Build confidence supporting your students with assessment

- Enhance subject knowledge

- Great for professional development

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Oxford Cambridge and RSA

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