

T Level Technical Qualification in Digital: Digital Production, Design and Development

Occupational Specialism

Specimen assessment materials (SAMs)

First teaching September 2020

T Level Technical Qualification in Digital: Digital Production, Design and Development

**Specimen assessment material for first teaching
September 2020**

Component: Occupational Specialism

This booklet contains material for the completion of the set task under supervised conditions.

This booklet is specific to each series and this material must only be issued to Students who have been entered to undertake the task in the relevant series.

This booklet should be kept securely until the start of the 3-week assessment window.

Level

3

Total Marks

58

Controlled
hours

20

Task 1

Analysing the problem and designing a solution

Paper Reference

PXXXXXA

Instructions for Students

You must complete ALL activities within the assessment.

This set task must be undertaken between [Day Month YYYY] to [Day Month YYYY]

Your centre will schedule **20 supervised hours during the three-week window** in which you will produce the outcomes for this task.

You are:

- only permitted to produce evidence of your proposal and design documentation during the scheduled supervised sessions
- not permitted to have access to their proposal and design documentation outside of the supervised assessment sessions.

Outside of the supervised assessment sessions you are permitted to:

- carry out research outside the scheduled supervised assessment sessions - see Activity A(i).
- produce notes containing the facts and figures related to their research outside the supervised sessions.

Any notes that you wish to take into the supervised sessions must be submitted as part of the assessment so that they can be checked by your teacher/tutor to confirm that the notes contain **only** facts and figures related to the research carried out.

Notes that you are permitted to take into the scheduled supervised sessions must:

- **not contain** attempts to interpret, analyse or evaluate the research in the context of the scenario
- **not contain** any other content that has not been specified in these instructions
- be submitted as an appendix to the task and be retained by your centre until after the end of the post-results service period.

You are allowed monitored access to the internet during the scheduled supervised sessions.

Your work will be kept securely during any breaks taken.

You are not permitted to take anything into or take anything out of the supervised assessment sessions without the approval of your teacher/tutor/invigilator.

Templates provided for use during this task:

- Task1_Test_Strategy_Template.doc

Your work must:

- be completed independently
- identify work that is not your own through the use of appropriate citation
- be authenticated by your teacher/tutor before being submitted to Pearson.

Your teacher is not permitted to provide guidance or feedback during this task.

Set Task Brief

The software development company that you work for has secured a new contract to develop a digital solution for ToKa Fitness.

ToKa Fitness currently provides customers with:

- personal training sessions
- advice about fitness training
- advice about healthy living.

The client (the owner of ToKa Fitness) would like to develop a digital solution that will:

- provide information and advice about fitness training and healthy living
- provide access to digital content to support customers with their training and healthy lifestyle
- encourage existing customers to use more of the services provided by ToKa Fitness

The client has carried out some market research to identify potential features that their existing customers suggested could be included in the digital solution. The potential features the existing customers identified are:

- free and paid-for content
- accessibility features for users with sight loss
- 'social' features
- customizable workout and eating plans.

Activities

Activity A (i)

In preparation for developing a proposal for the digital solution, you have been asked to carry out research. Your research should consider how digital solutions are used to meet the needs of different users within the health and fitness industry, including:

- how hardware and software are used within the context of the health and fitness industry
- newly emerging technologies
- how digital could be used to meet different user needs
- the industry-specific guidelines and regulations you would be required to follow.

You are permitted to carry out research outside of supervised assessment time. Any notes about your research that you wish to take into the supervised assessment may contain **only** facts and figures related to the research carried out and must be submitted as an appendix to the task.

Activity A (ii)

Produce a detailed proposal for a digital solution you would develop to meet the needs of:

- the client (ToKa Fitness)
- existing and potential customers.

Your proposal should provide a rationale for the solution you are proposing and include:

- the business context
- the functional and non-functional requirements of the solution
- decomposition of the problems that will need to be solved to implement the functional and non-functional requirements.
- the key performance indicators (KPIs) and user acceptance criteria for the proposed solution
- a description of the proposed solution
- justification of:
 - how the recommended solution meets the needs of the client and users
 - how potential risks will be mitigated
 - how relevant regulatory guidelines and legal requirements, in relation to software development and the industry, will be addressed.

[24 Marks]

Activity B

Produce a set of design documents for the digital solution that you are proposing. The design documentation must include:

- Visual/interface designs
- Data requirements
- A selection of algorithm designs (maximum of five)
- A test strategy

(see further information on the next page)

Your proposed solution **must** be of sufficient scope and complexity to demonstrate the ability to implement code in at least two appropriate languages to implement front-end and back-end processes.

Your design documents should be of sufficient detail to:

- effectively communicate the intended solution to both technical and non-technical stakeholders
- allow the client to make informed decisions
- allow a third-party developer to use the design documents to create the proposed solution.

Your algorithm designs do not need to show the whole solution but should show how you would solve a number of different key problems. You should limit your algorithm designs to a maximum of five complex problems.

Your test strategy does not need detail specific tests for every part of the solution but should provide a selection of tests, as relevant to your proposed solution, that show:

- the order in which you intend to test all components of the solution
- the types of tests to be carried out for each of the components

[34 Marks]

Outcomes for Submission

You must submit:

1. A proposal for the designed solution, including appendices of relevant research notes to support the rationale.

Save your proposal as PDF files in your folder for submission. Use this naming convention:

Task 1_Proposal_[Registration number #]_[surname]_[first letter of first name]

2. A set of design documents

Save your completed design documents as PDF files in your folder for submission. Use this naming convention:

Task 1_DesignDocs_[document name]_[Registration number #]_[surname]_[first letter of first name]

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Level

3

Total Marks

48

Controlled
hours

30

Task 2

Developing the solution

Paper Reference

PXXXXXA

Instructions for Students

You must complete ALL activities within the assessment.

This task is to be completed under supervised conditions in a window of 4 weeks.

The window for this task is day [Day Month YYYY] to [Day Month YYYY]

Your centre will schedule **30 supervised hours during the four-week window** in which you will produce the outcomes for this task.

During this task, you are allowed:

- monitored access to the internet during the scheduled supervised assessment task
- access to a copy of the proposal and design produced in Task 1.

You are not allowed to make changes to the evidence produced in Task 1.

Your work will be kept securely during any breaks and between scheduled sessions.

Templates provided for use during this task:

- Task 2_Test_Log_Template.doc

During this task your teacher is permitted to provide general feedback about:

- the appropriateness of the solution you designed in Task 1
- if the solution you are developing functions as intended.

Your teacher is **not** permitted to provide guidance about how to improve your solution.

Set Task Brief

Your manager has approved you to move into the stage of developing your solution and has asked you to produce a prototype of the solution you have designed.

To help you develop a functional prototype, your manager has told you to refer to:

- information from your proposal and designs
- the information provided Set Task Brief provided in Task 1 (reproduced here)

Set Task 1 Brief

ToKa Fitness currently provides customers with:

- personal training sessions
- advice about fitness training
- advice about healthy living.

The client (the owner of ToKa Fitness) would like to develop a digital solution that will:

- provide information and advice about fitness training and healthy living
- provide access to digital content to support customers with their training and healthy lifestyle
- encourage existing customers to use more of the services provided by ToKa Fitness

The client has carried out some market research to identify features that their existing customers would like included in a digital solution. The features the existing customers identified are:

- free and paid-for content
- accessibility features for users with sight loss
- 'social' features
- customizable workout and eating plans.

Activity

Developing the prototype

You need to record the sources that you use into an assets log. Your log must:

- Record the sources you have used
- Describe the content and intended purpose of the content you have selected
- Log the date you retrieved the information.

Develop a functional prototype of your proposed digital solution to meet the client's needs.

During the development, make sure that you:

- implement secure code in at least two appropriate languages to implement front-end and back-end processes
- gather and prepare appropriate assets to be used in the development of your digital solution
- make use of, and document, iterative testing
- document the iterative development process including changes that are made to the solution during development
- produce code that is maintainable by a third party
- ensure a high-quality user experience
- follow legal and regulatory guidelines and standards

When gathering assets you need to record the sources that you use into an assets log. Your log must:

- Record the sources you have used
- Describe the content and intended purpose of the content you have selected
- Log the date you retrieved the information.

Your testing documentation does not need detail every test carried out but should demonstrate:

- An iterative approach to testing
- understanding of how to test inputs, calculations, validation and processes using appropriate test data

[48 Marks]

Outcomes for submission

Prototype

Save copies of key versions of your functional prototype in your folder for submission. You should use any sensible folder structure and naming convention.

Development documentation

Save your development documents as PDF files in your folder for submission. Use this naming convention:

- Task2[document name]_[Registration number #]_[surname]_[first letter of first name]

Save your Content and Assets log as a PDF in your folder for submission.

- Task2ContentAssets_log_[Registration number #]_[surname]_[first letter of first name]

Test log

Save your test log as a PDF file in your folder for submission. Use this naming convention:

- Task2[document name]_[Registration number #]_[surname]_[first letter of first name]

Code for prototype solution

Save your code as PDFs and as a .txt files in your folder for submission. Use this naming convention:

- Task2code [doc #]_[Registration number]_[surname]_[first letter of first name]

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3

Total Marks

24

Controlled
hours

15

Task 3 Part A

Gathering feedback to inform future development

Paper Reference

PXXXXXA

Instructions for Students

You must complete ALL activities within the assessment.

This task is to be completed during the Task 3a window of 2 weeks set by Pearson.

The window for Task 3a is [Day Month YYYY] to [Day Month YYYY]

During this task, your centre will schedule 15 hours of scheduled supervised assessment so that you have sufficient access to others who you can provide feedback to you on your solution.

In addition to the supervised time, you are also permitted to produce evidence for this task during unsupervised time. You should use this time to gather feedback from sources outside of those in your class or outside your centre.

You are allowed access to the internet during both the supervised and unsupervised elements of this task.

Throughout both the supervised and unsupervised parts of this task you are allowed access to copies of:

- your design
- the prototype digital solution you have produced.

You are not allowed to make changes to evidence produced in previous tasks during this task.

Your teacher is not permitted to provide guidance or feedback during this task.

Set Task Brief

Your manager has asked you to gather feedback on your prototype that you can use in evaluating the effectiveness of the prototype in order to be able to identify and plan the next steps for future iteration.

Activities

Produce materials to support the gathering of as well as gain feedback for a technical and non-technical audience.

You need to:

- use appropriate tools, methods and techniques to prepare demonstrations of the prototypes' functionality that are intended to be used to show the functionality of the prototype to:
 - a technical audience, (e.g. programming professionals)
 - a non-technical audience, (e.g. the client, the users)
- produce a plan for how you intend to gather feedback
- use the materials you produce to gather feedback
- record the feedback received in a format(s) suitable for analysis.

[24 marks]

Outcomes for submission

Feedback materials

Save the materials you have created, and the feedback received using any suitable file type in your folder for submission.

Use this naming convention:

- Task3_Part A_[document name]_[Registration number #]_[surname]_[first letter of first name]

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Level

3

Total Marks

15

Controlled
hours

2

Task 3 Part B

Evaluating feedback to inform future development

Paper Reference

PXXXXXA

Instructions for Students

You must complete ALL activities within the assessment.

This task is to be completed during the Task 3b window of 2 days set by Pearson.

The window for Task 3b is [Monday Month YYYY] to [Tuesday Month YYYY]

During the window, your centre will schedule the single 2-hour supervised assessment for you to produce the evidence for this task.

You are not allowed access to the internet during this task.

You are allowed access to:

- a copy of your design
- the prototype digital solution you have produced
- the feedback you have gathered in Task 3 Part A.

You are not allowed to make changes to evidence produced in previous tasks.

Your work will be kept securely at all times.

Your teacher is not permitted to provide guidance or feedback during this task.

Activities

Produce an evaluation of the effectiveness of the prototype digital solution you have developed.

Your evaluation should justify:

- how effective the assets and content used are including:
 - why the chosen assets and content were selected, and other content rejected
 - the validity and reliability of the sources of information you used
 - any legal and ethical implications of the assets and content selected
- how well the digital solution you planned and produced meets:
 - functional and non-functional requirements of the solution
 - key performance indicators (KPIs)
 - user acceptance criteria for the proposed solution
- how the prototype could be further developed.

[15 marks]

Outcomes for submission

Feedback evaluation report

Save your report as a PDF file in your folder for submission. Use this naming convention:

- Task4_Part B_Evaluation_[Registration number #]_[surname]_[first letter of first name]

Task 1- Test Strategy

Date of test	Component to be tested	Type of test to be carried out	Pre-requisites and dependencies

Add more rows as required

Task 2 - Test Log

Description of test	Test data to be used (if required)	Expected outcome	Actual outcome	Comments and intended actions

Add more rows as required