

Level 2 Technical Certificate in Digital Technologies Software and Applications (5220-025)

Version 1.0 (September 2017)

Assessment Pack

Synoptic Assignment Pack

PAST ASSIGNMENT (2018/2019) NOT USE FOR LIVE ASSESSMENT

Introduction

General information about structure of the assignment pack

Candidate section

- Candidate guidance
- Assignment and tasks

Tutor section

- Guidance on tasks
- Guidance on assessment conditions
- Guidance on marking
- Marking criteria
- Mark sheet
- Feedback form
- Observation form

General guidance for candidates

General guidance

This is a formal assessment that you will be marked and graded on. You will be marked on the quality and accuracy of your practical performance and any written work you produce. It is therefore important that you carry your work out to the highest standard you can. You should show how well you know and understand the subject and how you are able to use your knowledge and skills together to complete the tasks. This means you will usually have to write down your thinking and the reasons behind the way you have carried out the tasks and how/why you have made your decisions. This may be part of your planning, reflections, or evaluations.

Plagiarism

This is an assessment of your abilities, so the work must be all your own work and carried out under the conditions stated. You will be asked to sign a declaration that you have not had any outside help with the assessment.

Your tutor is allowed to give you some help understanding the assignment instructions if necessary, but they will record any other guidance you need and this will be taken into account during marking.

Plagiarism is the failure to acknowledge sources properly and/or the submission of another person's work as if it were your own. Plagiarism is not allowed in this assignment.

Where research is allowed, your tutor must be able to identify which work you have done yourself, and what you have found from other sources. It is therefore important to make sure you acknowledge all sources and clearly reference any information taken from them.

Timings and planning

Where you have to plan your time, you should take care to make sure you have divided the time available between tasks appropriately. In some assignments, there are specified timings which cannot be changed and which need to be taken into account. You should check your plan is appropriate with your tutor.

If you have a good reason for needing more time, you will need to explain the reasons to your tutor and agree a new deadline date. Changes to dates will be at the discretion of the tutor, and they may not mark work that is handed in after the agreed deadlines.

Health and Safety

You must always work safely, in particular while you are carrying out practical tasks. You must always follow any relevant Health and Safety regulations and codes of practice.

If your tutor sees you working in a way that is unsafe for yourself or others, they will ask you to stop immediately, and tell you why. Your tutor will not be able to reassess you until they are sure you are ready for assessment and can work safely.

Presentation of work

Presentation of work must be neat and appropriate to the task.

You should make sure that each piece of evidence including any proformas eg record/job cards are clearly labelled with your name and the assignment reference.

All electronic files must be given a clear file name that allows your tutor to identify it as your work.

Written work eg reports may be word processed or hand written unless stated otherwise.

All sketches and drawings should be neat and tidy, to scale and annotated.

Calculations should be set out clearly, with all working shown, together with any assumptions made. You should use appropriate units at all times and answers must be expressed to a degree of accuracy, consistent with the requirements of the task.

The use of non-programmable scientific calculators is acceptable.

Assignment Brief

As a self-employed developer, you must track the status of commissioned jobs carefully. You have an idea for an application that will achieve this successfully and want to build the prototype.

The application must initially record the following Mandatory information for each job and must be able to be edited just to provide the optional information:

- | | |
|---------------------|-----------|
| • Job name | Mandatory |
| • Job description | Mandatory |
| • Client name | Mandatory |
| • Client email | Mandatory |
| • Client phone | Mandatory |
| • Date commissioned | Mandatory |
| • Date completed | Optional |

The prototype application must write and read data to and from a text file so that the user records and edits the data for the jobs in user input screens/forms. It must display a list of job data in a separate screen/form for at least three commissioned jobs, one of which has been completed.

The application must run from a standalone executable file on a Microsoft Windows PC and must not require any other dependent software to be installed.

Material is needed to support users of the application in a website, initially through a sample of the support describing how the application can be used. The sample material can be in a single webpage and this page must contain a mixture of text and images. The webpage must use styles implemented from external files. The website must work as required in two different web browsers.

Many developers will want to run the application across a network on a PC that is different to the one on which it is installed. The prototype application must be tested on a network of two PCs connected through a switch. You will be required to upgrade one of the PCs to be included in the network and you are also required to set the network up to carry out the test.

The test must show that the application can be accessed from a newly upgraded PC when it connects through a switch to the PC that has the application installed on it. The newly upgraded PC must be able to run the application remotely, and the user must be able to enter job information in the same way as on the local installation.

If the application is to be developed commercially, additional funding will be needed to provide the expertise required. Write an evaluation report on the application that has been built and make recommendations for the features that the commercial version will contain to be sent to a bank for consideration.

Tasks

Task 1

Create a full set of specification documents for developing and testing the software application.

Conditions of assessment:

Your planning must be completed working alone, under supervised conditions.

It is expected that this task will take approximately **3 hours** in total.

What you must produce for marking:

A single word-processed document containing:

- complete design documentation.

Task 2

Develop your software application as specified in your plans and test its functionality. Backup your development files for the final version of the application.

Conditions of assessment:

Your application development must be completed working alone under supervised conditions.

It is expected that this task will take approximately **6 hours** in total.

What you must produce for marking:

A single word-processed document containing:

- screenshots or images of the application you have developed demonstrating navigation and functionality
- evidence of testing as specified in Task 1
- annotated screen prints of completed back up files.

Task 3

Create a webpage with content to help users of the application you have designed and developed in tasks 1 and 2.

The styling applied to the webpage should be consistent with that used in the developed application and must be applied using external files.

Test the webpage in two different browser applications.

Conditions of assessment:

Your website files must be created working alone, under supervised conditions.

It is expected that this task will take approximately **3 hours** in total.

What you must produce for marking:

A single word-processed document containing:

- annotated screenshots or images of the completed webpage
- annotated screenshots or images of the complete file structure for all website files
- annotated code listings for all website files.

Task 4

Complete the upgrading and configuration of a PC by:

- installation and configuration of:
 - a provided component
 - an operating system
 - suitable security to authenticate users
 - anti-virus software and updating the associated virus definitions
- install the newly developed software application
- enable the launch of the application from a desktop shortcut.

Connect the newly upgraded computer (Computer 1) with one other existing PC (Computer 2) using a wired network containing a switch.

Open the software application which is installed on Computer 1 using Computer 2 and demonstrate the conversions of distance and volume.

Conditions of assessment:

Your planning must be completed working alone under supervised conditions.

It is expected that this task will take approximately **4 hours** in total.

What you must produce for marking:

- completed Assessor observation form.

Task 5

Create the evaluation report required to support the application for funding of the fully commercial version of the application.

Conditions of assessment:

Your evaluation documentation must be completed working alone under supervised conditions.

It is expected that this task will take approximately **2 hours** in total.

What you must produce for marking:

A single word-processed document containing the evaluation of all the tasks.

Task instructions for centres

Time

The recommended time allocated for the completion of the tasks and production of evidence for this assessment is approximately **eighteen** hours. It is the centre's responsibility to arrange how this time is managed to fit with timetables during the assessment period. Candidates should be required to plan their work and have their plans confirmed for appropriateness in relation to the time allocated for each task.

Resources

Candidates must have access to a suitable range of resources to carry out the tasks. Candidates must not have access to the internet but may use any pre-prepared study notes.

Task 1

All candidates must have access to identical software, suitable for the preparation of the planning documents.

Task 2

Candidates may use any appropriate software development environment. All candidates must use the same development system. The candidate is not allowed to develop the application using previously installed software such as Microsoft Access. The application must operate independently of software other than the operating system.

Task 3

Candidates may use any suitable website development environment and must have access to two different browsers to test the webpage.

Task 4

The centre must provide a partially built PC on which the candidate must install and configure any one component to complete the build from the following list:

- Hard disk drive (optical/mechanical or SSD)
- RAM
- An expansion card (eg graphics card)

Candidates must have access to installation media for the Operating System and anti-virus software. The updating of the anti-virus software can be achieved by the internet or a locally supplied definition file.

Candidates must have access to the resources required to create a wired network consisting of an existing PC with two browsers installed, Switch, media and newly upgraded PC.

Task 5

All candidates must have access to identical software, suitable for the preparation of the evaluation documents.

Candidates will evaluate their work completed in tasks 1 – 4 and create documentation that is suitable for the intended purpose, ie presentation to potential investors.

Centre guidance

Guidance provided in this document refers to this specific assignment. The following documents available on the City & Guilds website provide essential generic guidance for centres delivering Technical qualifications and **must** be referred to alongside this guidance:

- *Technical qualifications – marking and moderation* – updated annually
- *Technical qualifications – teaching, learning and assessment*

This synoptic assessment is designed to require the candidate to make use their knowledge, understanding and skills they have built up over the course of their learning to tackle problems/tasks/challenges.

This approach to assessment emphasises to candidates the importance and applicability of the full range of their learning to practice in their industry area, and supports them in learning to take responsibility for transferring their knowledge, understanding and skills to the practical situation, fostering independence, autonomy and confidence.

Candidates are provided with an assignment brief. They then have to draw on their knowledge and skills and independently select the correct processes, skills, materials, and approaches to take to provide the evidence specified by the brief.

During the learning programme, it is expected that tutors will have taken the opportunity to set shorter, formative tasks that allow candidates to be supported to independently use the learning they have so far covered, drawing this together in a similar way, so they are familiar with the format, conditions and expectations of the synoptic assessment.

You should explain to candidates what the Assessment Objectives are and how they are implemented in marking the assignment, so they will understand the level of performance that will achieve them high marks.

The candidate should not be entered for the assessment until the end of the course of learning for the qualification so they are in a position to complete the assignment successfully.

Health and safety

Candidates should not be entered for assessment without being clear of the importance of working safely, and practice of doing so. The tutor must immediately stop an assessment if a candidate works unsafely. At the discretion of the tutor, depending on the severity of the incident, the candidate may be given a warning. If they continue to work unsafely however, their assessment must be ended and they must retake the assessment at a later date.

Observation

Where the tutor is required to carry out observation of performance, detailed notes must be taken using the Practical Observation (PO) form provided. This may be a generic form or tailored to the specific assignment. The centre has the flexibility to adapt the form, or produce their own to suit local requirements as long as this does

not change or restrict the type of evidence collected (eg to use tablet, hand-written formats, or to ease local administration).

Observation notes form part of the candidate's evidence and must describe **how well** the activity has been carried out, rather than stating the steps/ actions the candidate has taken. The notes must be very descriptive and focus on the **quality** of the performance in such a way that comparisons between performances can be made and which provide the evidence on which the award of marks can be made by the marker and, if sampled, the moderator.

Identifying **what it is** about the performances that is **different** between candidates can clarify the qualities that are important to record. Each candidate may carry out the same steps, so a checklist of this information would not add information to help differentiate between them, but qualitative comments on **how well** they do it, and quantitative records of accuracy and tolerances would.

The tutor should refer to the marking grid to ensure appropriate aspects of performance are recorded. These notes will be used for marking and moderation purposes and so must be detailed, accurate and differentiating.

Tutors should ensure that any required additional supporting evidence including eg photographs or video can be easily matched to the correct candidate, are clear, sufficiently well-lit and showing the areas of particular interest for assessment (ie taken at appropriate points in production, showing accuracy of measurements where appropriate).

If candidates are required to work as a team, each candidate's contribution must be noted separately. The tutor may intervene if any individual candidate's contribution is unclear or to ensure fair access (see below).

See the ***Technical qualifications – marking and moderation*** centre guidance document for further information on gathering evidence suitable for marking and moderation.

Minimum evidence requirements

The sections:

- ***What you must produce for marking***, and
- ***Additional evidence of your performance that must be captured for marking***

in the assignment list the minimum requirements of evidence to be submitted for marking and moderation.

Evidence above and beyond this may be submitted, but should provide useful information for marking and moderation.

Where candidates have carried out some work as a group, the contribution of each candidate must be clear. It is not appropriate to upload identical information for each candidate without some way for the moderator to mark the candidates individually.

Where the minimum requirements have **not** been met, the moderation remark and any subsequent adjustment will be based on the evidence that has been submitted. **Where this is insufficient to provide a mark on moderation, a mark of zero may be given.**

Preparation

Candidates should be aware of which aspects of their performance (across the AOs) will give them good marks in assessment. This is best carried out through routinely pointing out good or poor performance during the learning period, and through formative assessment. Candidates should be encouraged to do the best they can and be made aware of the difference between these summative assessments and any formative assessments they have been subject to. Candidates may not have access to the full marking grids, as these may be misinterpreted as pass, merit distinction descriptors. See the ***Technical qualifications – teaching, learning and assessment*** centre guidance document for further information on preparing candidates for Technical qualification assessment.

Guidance on assessment conditions

The assessment conditions that are in place for this synoptic assignment are to:

- ensure the rigour of the assessment process
- provide fairness for candidates
- give confidence in the outcome.

They can be thought of as the rules that ensure that all candidates who take an assessment are being treated fairly, equally and in a manner that ensures their result reflects their true ability.

The conditions outlined below relate to this summative synoptic assignment. These do not affect any formative assessment work that takes place. Formative assessment will necessarily take a significant role throughout the learning programme where support, guidance and feedback (with the opportunity to show how feedback has been used to improve outcomes and learning) are critical. This approach is not, however, valid for summative assessment. The purpose of summative assessment is to confirm the standard the candidate has achieved as a result of participating in the learning process.

Authentication of candidate work

Candidates are required to sign declarations of authenticity, as is the tutor. The relevant form is included in this assignment pack.

The final evidence for the tasks that make up this synoptic assignment must be completed under the specified conditions. This is to ensure authenticity and prevent malpractice as well as to assess and record candidate performance for assessment in the practical tasks. Any aspect that may be undertaken in unsupervised conditions is specified. It is the centre's responsibility to ensure that local administration and oversight gives the tutor sufficient confidence to be able to confirm the authenticity of the candidate's work.

Candidate evidence must be kept secure to prevent unsupervised access by the candidate or others. Where evidence is produced over a number of sessions, the tutor must ensure learners and others cannot access the evidence without supervision. This might include storing written work or artefacts in locked cupboards

and collecting memory sticks of evidence produced electronically at the end of each session.

Where the candidate or tutor is unable to, or does not confirm authenticity through signing the declaration form, the work will not be accepted at moderation and a mark of zero will be given. If any question of authenticity arises eg at moderation, the centre may be contacted for justification of authentication.

Accessibility and fairness

Where a candidate has special requirements, tutors should refer to the *Access arrangements and reasonable adjustments* section of the City& Guilds website.

Tutors can support access where necessary by providing clarification to **any** candidate on the requirements or timings of any aspect of this synoptic assignment. Tutors should **not** provide more guidance than the candidate needs as this may impact on the candidate's grade, see the guidance and feedback section below.

All candidates must be provided with an environment and resources that allows them access to the full range of marks available.

Where candidates have worked in groups to complete one or more tasks for this synoptic assessment, the tutor must ensure that no candidate is disadvantaged as a result of the performance of any other team member. If a team member is distracting or preventing another team member from fully demonstrating their skills or knowledge, the tutor must intervene.

Guidance and feedback

Guidance must only support access to the assignment and must not provide feedback for improvement. The level and frequency of clarification & guidance must be

- recorded fully on the candidate record form (CRF),
- taken into account along with the candidate's final evidence during marking
- made available for moderation.

Tutors **must not** provide feedback on the quality of the performance or how the quality of evidence can be improved. This would be classed as malpractice.

Tutors **should** however provide general reminders to candidates throughout the assessment period to check their work thoroughly before submitting it, and to be sure that they are happy with their final evidence as it may not be worked on further after submission.

Candidates can rework any evidence that has been produced for this synoptic assignment during the time allowed. However, this must be as a result of their own review and identification of weaknesses and not as a result of tutor feedback. Once the evidence has been submitted for assessment, no further amendments to evidence can be made.

Tutors should ensure that candidates' plans for completion of the tasks distribute the time available appropriately and may guide candidates on where they should be up to at any point in a general way. Any excessive time taken for any task should be recorded and should be taken into account during marking if appropriate.

It is up to the marker to decide if the guidance the candidate has required suggests they are lacking in any AO, the severity of the issue, and how to award marks on the basis of this full range of evidence. The tutor must record where and how guidance has had an impact on the marks given, so this is available should queries arise at moderation or appeal.

What is, and is not, an appropriate level of guidance

- A tutor **should** intervene with caution if a candidate has taken a course of action that will result in them not being able to submit the full range of evidence for assessment. However this should **only** take place once the tutor has prompted the candidate to check that they have covered all the requirements. Where the tutor has to be explicit as to what the issue is, this is likely to demonstrate a lack of understanding on the part of the candidate rather than a simple error, and full details should be recorded on the CRF.
- The tutor **should not** provide guidance if the candidate is thought to be able to correct the issue without it, and a prompt would suffice. In other words only the minimum support the candidate actually needs should be given, since the more guidance provided, the larger the impact on the marks awarded.
- A tutor may **not** provide guidance that the candidate's work is not at the required standard or how to improve their work. In this way, candidates are given the chance to identify and correct any errors on their own, providing valid evidence of knowledge and skills that will be credited during marking.

All specific prompts and details of the nature of any further guidance must be recorded and reviewed during marking and moderation.

Guidance on marking

Please see the ***Technical qualifications – marking and moderation*** centre guidance document for further information on gathering evidence suitable for marking and moderation, and on using the following marking grid.

The Candidate Record Form (CRF) is used to record:

- details of any guidance or the level of prompting the candidate has received during the assessment period
- rough notes made while reviewing the evidence – alternatively these may be captured on the marking and moderation platform.
- summary justifications when holistically coming to an overall judgement of the mark.

Marking grid

For any category, 0 marks may be awarded where there is no evidence of achievement

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
10	AO1 Recall of knowledge relating to the qualification LOs <ul style="list-style-type: none"> Does the candidate seem to have the full breadth and depth of taught knowledge across the qualification to hand How accurate is their knowledge Are there any gaps or misunderstandings evident How confident and secure does their knowledge seem 	(1-2 marks) Recall shows some weaknesses in breadth and/or accuracy. Hesitant, gaps, inaccuracy.	(3-4 marks) Recall is generally accurate and shows reasonable breadth. Inaccuracy and misunderstandings are infrequent and usually minor. Sound, minimal gaps.	(5-6 marks) Consistently strong evidence of accurate and confident recall from the breadth of knowledge. Accurate, confident, complete, fluent, slick.
		Examples of types of knowledge: Life cycles for application development. Data types. Data storage. Programming constructs. Programming conventions. Standard IDE controls. Mobile device operating systems. Security options in mobile development. Website architecture. HTML language fundamentals. CSS fundamentals. Scripting fundamentals. Image characteristics and Intellectual Property Rights. Testing techniques.		
		Candidate has demonstrated a limited range of knowledge from across the qualification. Candidate's use of technical language was limited.	Candidate has shown an appropriate range of knowledge from across the qualification. Candidate's use of technical language was adequate.	Candidate has shown in depth and detailed knowledge across the whole qualification range. Candidate's use of technical language was precise throughout.

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
10	AO2 Understanding of concepts, theories and processes relating to the LOs <ul style="list-style-type: none"> Does the candidate make connections and show causal links and explain why How well are theories and concepts applied to new situations/the assignment How well chosen are exemplars – how well do they illustrate the concept 	<p>(1-2 marks)</p> <p>Some evidence of being able to give explanations of concepts and theories. Explanations appear to be recalled, simplistic or incomplete.</p> <p>Misunderstanding, illogical connections, guessing.</p>	<p>(3-4 marks)</p> <p>Explanations are logical. Showing comprehension and generally free from misunderstanding, but may lack depth or connections are incompletely explored.</p> <p>Logical, slightly disjointed, plausible.</p>	<p>(5-6 marks)</p> <p>Consistently strong evidence of clear causal links in explanations generated by the candidate. Candidate uses concepts and theories confidently in explaining decisions taken and application to new situations.</p> <p>Logical reasoning, thoughtful decisions, causal links, justified.</p>
		<p>Examples of understanding: Life cycle models, development paradigms, Use of data in a program. Program flow and control. Testing and debugging of software. Establishing requirements and specifications. Testing strategies. Mobile operating system. Website structures. Website development methodology. Constraints of mobile application design. Hardware components and, software, website. The planning and execution of testing.</p>		

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
		<p>The candidate has demonstrated limited understanding of hardware, software and security requirements.</p> <p>The candidate has demonstrated limited understanding of development tools and processes.</p>	<p>The candidate has demonstrated adequate understanding of the hardware, software and security requirements.</p> <p>The candidate has demonstrated understanding of most of the development tools and processes.</p>	<p>The candidate has demonstrated a comprehensive understanding of the use of appropriate hardware, software and security.</p> <p>The candidate has demonstrated comprehensive understanding of the development tools and processes for creation of software and websites.</p>
30	AO3 Application of practical/ technical skills <ul style="list-style-type: none"> How practiced/fluid does hand eye coordination and dexterity seem How confidently does the candidate use the 	<p>(1-6 marks)</p> <p>Some evidence of familiarity with practical skills. Some awkwardness in implementation, may show frustration out of inability rather than lack of care.</p> <p>Unable to adapt, frustrated, flaws, out of tolerance, imperfect, clumsy.</p>	<p>(7-12 marks)</p> <p>Generally successful application of skills, although areas of complexity may present a challenge. Skills are not yet second nature.</p> <p>Somewhat successful, some inconsistencies, fairly adept/ capable.</p>	<p>(13-18 marks)</p> <p>Consistently high levels of skill and/or dexterity, showing ability to successfully make adjustments to practice; able to deal successfully with complexity.</p> <p>Dextrous, fluid, comes naturally, skilled, practiced.</p>

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor
		Poor to limited	Fair to good	Strong to excellent
	breadth of practical skills open to them • How accurately/successfully has the candidate been able	Examples of skills expected: Design and creation of software. GUI creation using standard IDE controls. Use of data types, Use of decision algorithms and constructs. Use of mathematical functions in the software. Coding standards and techniques. Data types to match rates. Safe working practices. Operating system configuration. Website creation. Network set-up of physical devices. Completion and configuration of networks. Installation and configuration of hardware. Network security through authentication. Backup strategies and techniques.		

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
	<p>to use skills/achieve practical outcomes</p> <ul style="list-style-type: none"> Does the candidate respond to the brief in an original way Are ideas/ materials etc used in a creative novel, experimental way Are creative, unconventional approaches taken in applying skills/ processes to meet a challenge 	<p>Minimal logic was applied to task interpretation and system configuration.</p> <p>Hardware and software tasks were implemented successfully but there were minor errors present.</p> <p>Test planning and execution was basic.</p> <p>Minimal consideration was given to securing systems.</p> <p>A basic level of skill was demonstrated when creating the webpage.</p> <p>Limited skills were demonstrated when implementing the network.</p>	<p>A logical approach was applied to task interpretation and system configuration.</p> <p>Hardware and software tasks were implemented successfully with errors present that were identified and resolved.</p> <p>Test planning and execution was adequate.</p> <p>Adequate consideration given to securing systems.</p> <p>An adequate level of skill was demonstrated when creating the webpage.</p> <p>Adequate skills were demonstrated when implementing the network.</p>	<p>A logical approach was applied to task interpretation, system configuration and remote access.</p> <p>Hardware and software tasks were implemented successfully without errors.</p> <p>Test planning and execution was comprehensive.</p> <p>Comprehensive security measures were implemented throughout.</p> <p>A comprehensive level of skill was demonstrated when creating the webpage.</p> <p>A comprehensive level of skills were demonstrated when implementing the network.</p>

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
25	AO4 Bringing it all together - coherence of the whole subject <ul style="list-style-type: none"> Does the candidate draw from the breadth of their knowledge and skills Does the candidate remember to reflect on theory when solving practical problems How well can the candidate work out solutions to new contexts/ problems on their own 	<p>(1-5 marks)</p> <p>Some evidence of consideration of theory when attempting tasks. Tends to attend to single aspects at a time without considering implication of contextual information.</p> <p>Some random trial and error, new situations are challenging, expects guidance, narrow. Many need prompting.</p>	<p>(6-10 marks)</p> <p>Shows good application of theory to practice and new context, some inconsistencies.</p> <p>Remembers to apply theory, somewhat successful at achieving fitness for purpose. Some consolidation of theory and practice.</p>	<p>(11-15 marks)</p> <p>Strong evidence of thorough consideration of the context and use of theory and skills to achieve fitness for purpose.</p> <p>Purposeful experimentation, plausible ideas, guided by theory and experience, fit for purpose, integrated, uses whole toolkit of theory and skills.</p>
		<p>Examples of bringing it all together: Research different system life cycle models and programming techniques that can be used when developing applications. Application of a lifecycle model to complete the project. Cohesion of tasks set and consistency of language and styles. Consistent presentation of input and output information/data. Consistency in website design matching other tasks. Application of knowledge gained to develop the skills required to produce a functioning application.</p>		

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
		<p>The various tasks were completed with limited coherence and poor use of resources.</p> <p>Styles used were applied with limited consistency across application and webpage.</p> <p>The application and webpage showed a basic understanding of the needs of the end user.</p> <p>Application and webpage testing processes were basic.</p> <p>The evaluation lacked coherence and some aspects of the project were not considered.</p>	<p>The various tasks were completed systematically with adequate use of resources.</p> <p>Styles were adequately maintained across application and webpage.</p> <p>The application and webpage adequately met the needs of the end user.</p> <p>Application and webpage testing processes were adequate.</p> <p>The evaluation was mostly coherent and considered a large majority of aspects in the project.</p>	<p>The various tasks were completed systematically with highly effective use of resources.</p> <p>Styles were systemically and consistently maintained across application and webpage.</p> <p>The application and webpage fully met the needs of the end user.</p> <p>Application and webpage testing processes were thorough.</p> <p>The evaluation was logical, coherent and considered all aspects of the project.</p>

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
25	AO5 Attending to detail/ perfecting <ul style="list-style-type: none"> Does the candidate routinely check on quality, finish etc and attend to imperfections/ omissions? How much is accuracy a result of persistent care and attention (eg measure twice cut once)? Would you describe the candidate as a perfectionist and wholly 	<p>(1-5 marks)</p> <p>Easily distracted or lack of checking. Insufficiently concerned by poor result; little attempt to improve. Gives up too early; focus may be on completion rather than quality of outcome.</p> <p>Careless, imprecise, flawed, uncaring, unfocussed, unobservant, unmotivated.</p>	<p>(6-10 marks)</p> <p>Aims for satisfactory result but may not persist beyond this. Uses feedback methods but perhaps not fully or consistently.</p> <p>Variable/intermittent attention, reasonably conscientious, some imperfections, unremarkable.</p>	<p>(11-15 marks)</p> <p>Alert, focussed on task. Attentive and persistently pursuing excellence. Using feedback to identify problems for correction.</p> <p>Noticing, checking, persistent, perfecting, refining, accurate, focus on quality, precision, refinement, faultless, meticulous.</p>
		<p>Examples of attending to detail: Formatting and layout of plans, documents, software and websites. Results are appropriately formatted for the target audience. Image relevance, webpage aesthetics, layout and originality.</p> <p>Clarity of advice and opinions, depth and breadth of understanding, website structure and content enhances communication, coherence of arguments, well-expressed sentence structure (syntax) spelling and grammar, use of language.</p>		

%	Assessment Objective	Band 1 descriptor Poor to limited	Band 2 descriptor Fair to good	Band 3 descriptor Strong to excellent
	<p>engaged in the subject?</p> <ul style="list-style-type: none"> How well are formally produced pieces of work (writing, drawings, posters etc) structured, laid out, presented, communicated? Does the candidate use logical and well structured writing that is coherent and easy to follow? How appropriate and well presented are the chosen communication methods and formats? 	<p>The candidate's use of technical language was inconsistent.</p> <p>The formatting of stored data and presentation of information was basic.</p> <p>The formatting of user interfaces was basic.</p> <p>Industry standard programming conventions were applied inconsistently in the creation of the application.</p> <p>Evaluation and specification documents lacked consistency and detail.</p>	<p>The candidate's use of technical language was appropriate and mostly accurate.</p> <p>The formatting of stored data and presentation of information was adequate.</p> <p>The formatting of user interfaces was mostly consistent and logical.</p> <p>Industry standard programming conventions were applied adequately in the creation of the application.</p> <p>Evaluation and specification documents were mostly consistent, detailed and adequately matched the intended purpose.</p>	<p>The candidate's use of technical language was accurate and consistent.</p> <p>The formatting of stored data and presentation of information was optimised to meet the needs of the end user.</p> <p>The formatting of user interfaces was consistent, logical and fully met the requirements of the brief.</p> <p>Industry standard programming conventions were fully met in the creation of the application.</p> <p>Evaluation and specification documents were consistent, detailed and fully matched the intended purpose.</p>

Declaration of Authenticity

Candidate name

Candidate number

Centre name

Centre number

Candidate:

I confirm that all work submitted is my own, and that I have acknowledged all sources I have used.

Candidate signature

Date

Tutor:

I confirm that all work was conducted under conditions designed to assure the authenticity of the candidate's work, and am satisfied that, to the best of my knowledge, the work produced is solely that of the candidate.

Tutor signature

Date

Note:

Where the candidate and/or tutor is unable to, or does not confirm authenticity through signing this declaration form, the work will not be accepted at moderation and a mark of zero will be given. If any question of authenticity arises, the tutor may be contacted for justification of authentication.

Candidate Record Form (CRF)

Candidate Name:
Candidate Number:

Assessment ID:
Centre Number:
Total Mark:

	Summary justification	AO Mark
A01 Recall		
A02 Understanding		
A03 Practical/ technical skills		
A04 Bringing it all together		
A05 Attention to detail		

Tutor/assessor signature:

Date:

Candidate Record Form (CRF)

Marker Notes

AO1 - Recall Breadth, depth, accuracy	Examples of types of knowledge expected: Life cycles for app development. Data types. Data storage. Programming constructs. Programming conventions. Standard IDE controls. Mobile device operating systems. Security options in mobile development. Website architecture. HTML language fundamentals. CSS fundamentals. Scripting fundamentals. Image characteristics and Intellectual Property Rights. Testing techniques.		
10%	Band 1 1 – 2 marks	Band 2 3 – 4 marks	Band 3 5 – 6 marks
Mark:	Notes/Comments		
AO2 - Understanding Security of concepts, causal links	Examples of understanding expected: Life cycle models, development paradigms, Use of data in a program. Program flow and control. Testing and debugging of software. Establishing requirements and specifications. Testing strategies. Mobile operating system. Website structures. Website development methodology. Constraints of mobile application design. Hardware components and, software, website. The planning and execution of testing.		
10%	Band 1 1 – 2 marks	Band 2 3 – 4 marks	Band 3 5 – 6 marks
Mark:	Notes/Comments		
AO3 - Practical skill Dexterity, fluidity, confidence, ease of application	Examples of skills expected: Design and creation of software. GUI creation using standard IDE controls. Use of data types, Use of decision algorithms and constructs. Use of mathematical functions in the software. Coding standards and techniques. Data types to match rates. Safe working practices. Operating system configuration. Website creation. Network set-up of physical devices. Completion and configuration of networks. Installation and configuration of hardware. Network security through authentication. Backup strategies and techniques.		
30%	Band 1 1 – 6 marks	Band 2 7 – 12 marks	Band 3 13 – 18 marks
Mark:	Notes/Comments		
AO4 – Bringing it together use of knowledge to apply skills in new context	Examples of bringing it all together: Research different system life cycle models and programming techniques that can be used when developing applications. Application of a lifecycle model to complete the project. Cohesion of tasks set and consistency of language and styles. Consistent presentation of input and output information/data. Consistency in website design matching other tasks. Application of knowledge gained to develop the skills required to produce a functioning application.		
25%	Band 1 1 – 5 marks	Band 2 6 – 10 marks	Band 3 11 – 15 marks

Mark:	Notes/Comments		
AO5 - Attending to detail / perfecting Repeated checking, perfecting, noticing	<i>Examples of attending to detail:</i> Formatting and layout of plans, documents, software and websites. Results are appropriately formatted for the target audience. Image relevance, webpage aesthetics, layout and originality. Clarity of advice and opinions, depth and breadth of understanding, website structure and content enhances communication, coherence of arguments, well-expressed sentence structure (syntax) spelling and grammar, use of language.		
25%	Band 1 1 – 5 marks	Band 2 6 – 10 marks	Band 3 11 – 15 marks
Mark:	Notes/Comments		

Please refer to the full marking grid for the qualification for full details of marking requirements.

Where marker notes and justifications are captured on the marking and moderation platform, this form is not required

Assessor Observation Form

Candidate Name:
Candidate Number:

Assessment ID:
Centre Number:

Task Number	Task Outcome	Observed as meeting specification	Errors made/ specification not met
3	Website tested in two browsers		
4	Completed PC Installation tasks		
4	Completed PC and Operating System configuration		
4	Installed, and configured Anti-Virus software		
4	Updated definitions of Anti-Virus software		
4	Opened software application across the network		
4	Application launches from a standalone executable		
4	Data successfully entered using the application		
4	At least three jobs shown with all mandatory fields		
4	At least one job shown with optional completion date field		

Notes for Assessor:

Use the above Assessor checklist. The learner's performance should be marked against the criteria on the Assessor checklist and the Marking grid. Additional Assessor notes must be included to comment on how well the candidate carried out each criteria. The learner should be familiar with the performance criteria above before commencement of the task but should not have a copy with them during the assessment.

Assessor observations and mark justification:

.....
Assessors Name
(please print)

.....
Assessors Name
(please sign)

Practical Observation Form (PO)

Candidate Name:
Candidate Number:

Assessment ID:
Centre Number:

Notes

AO1 - Recall

Breadth, depth,
accuracy

AO2 - Understanding

Security of concepts,
causal links

AO3 - Practical skill

Dexterity, fluidity,
confidence, ease of
application

AO4 – Bringing it all together

use of knowledge to
apply skills in new
context

AO5 - Attending to detail / perfecting

Repeated checking,
perfecting, noticing

Tutor/Assessor signature:

Date: