Unit 4 - Extended Project: Planning, Executing and Evaluating Systems

Overview

The candidate can plan, execute and evaluate an extended project on digital skills and online threats. Candidates will research the best ways to present information about themselves in terms of getting a job or getting into higher or further education. They will develop a secure working environment in order to present the best materials. They will populate the system and organise it in such a way that it highlights their skills, knowledge and understanding as best as possible. They will undertake and report on tests to ensure it is safe and controlled by them. They will evaluate the process and make recommendations to others based on their findings.

A work activity will typically be 'non-routine or unfamiliar' because the task or context is likely to require some preparation, clarification or research to separate the components and to identify what factors need to be considered. For example, time available, audience needs, accessibility of source, types of content, message and meaning, before an approach can be planned; and the techniques required will involve a number of steps and at times be non-routine or unfamiliar.

Example of context – this unit can underpin other units. For example, if learners are working on a DTP poster and a presentation to pitch the poster to a local company, how do they know what applications to use? How do they know how much time it will take? How will they organise their files and understand how to solve problems that arise? All of these are part of this unit so as long as they start planning using IT tools from the beginning, they will be gathering information to use for the IPU unit. This unit should be the start, middle and end of the course as it is related to all other units.

Assessor's guide to interpreting the criteria

General Information

RQF general description for Level 2 qualifications

- Achievement at RQF level 2 (EQF Level 3) reflects the ability to select and use relevant knowledge, ideas, skills and procedures to complete well-defined tasks and address straightforward problems. It includes taking responsibility for completing tasks and procedures and exercising autonomy and judgement subject to overall direction or guidance.
- Use understanding of facts, procedures and ideas to complete well-defined tasks and address straightforward problems. Interpret relevant information and ideas. Be aware of the types of information that are relevant to the area of study or work.
- Complete well-defined, generally routine tasks and address straightforward problems. Select and use relevant skills and procedures. Identify, gather and use relevant information to inform actions. Identify how effective actions have been.
- Take responsibility for completing tasks and procedures subject to direction or guidance as needed.

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Requirements

- Standards must be confirmed by a trained Gold Level Assessor or higher.
- Assessors must at a minimum record assessment judgements as entries in the on-line mark book on the INGOTs.org certification site.
- The work in the unit is recommended in order for candidates to have covered enough depth and breadth in the topic to successfully carry out their controlled assessment and take the external exam.
- When the candidate has covered as much of ths material as necessary to complete the controlled assessment element, they may be introduced to the topic
- This unit should take an average level 2 learner 50 hours of work to complete.

Assessment Method

This unit will be assessed synoptically via a controlled assessment and also through an external examination.

Expansion of the assessment criteria

1. Candidates will understand what is required of a digital profile to promote their knowledge and skills to different audiences in a secure manner

1.1 I can understand the ways to present myself suitably online understanding who the audience is for my digital profile

Learners will demonstrate a good appreciation of the nature of an online audience compared to a localised one, including cultural
sensitivities and possible disabilities.

Evidence: ePortfolio pages

Additional information and guidance
Using a variety of research methods students will develop a realistic understanding of:

- The likely audience for their work
- The best tools for presentations
- Best practice for colours and fonts
- Appreciation of possible audience disabilities and how to assist them through the workplace
- Be sensitive to language, culture and other differences

1.2 I can understand who to discuss issues and problems with in an online context

Learners will demonstrate a good understanding that they can go to assistance online from support

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forums and other community
focussed groups.

Evidence: ePortfolio

Additional information and guidance

Learners will show their understanding of online safety by being critical of online sources when using them, while understanding that
there are some good community based and public spirited forums that can be used.

Learners will recognise that online is not the only source of valuable information and that other more traditional methods of collecting
information including:

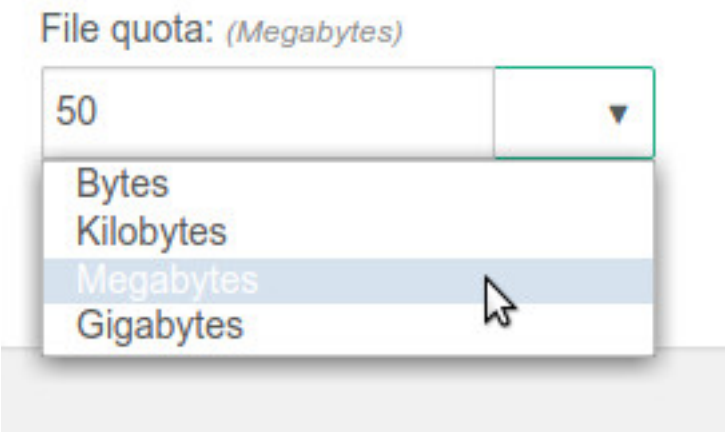
- Surveys
- Careers officer
- Careers section in the school or local library
- Relatives and local businesses

1.3 I can understand different systems and applications and file types to use for my digital profile
Learners will produce a list of alternative proposals that could provide a working solution to their brief

Evidence: ePortfolio

Additional information and guidance

Learners will develop an understanding of the properties of different file-types and be able to match them to the needs of specific features
of the online profile. The they should also demonstrate with their work that different files require different types of management. If
they are working in an arts based field, they will be generating large graphical files and audio/video material that often requires
specialised software to view it. It also requires increased storage capacity which may need to be discussed with a provider of an
online service. The following shows a quote set.



1.4 I can understand the common risks to my personal data from maintaining an online presence
Learners will recognise that anything posted online has been given away for ever.

Evidence: ePortfolio

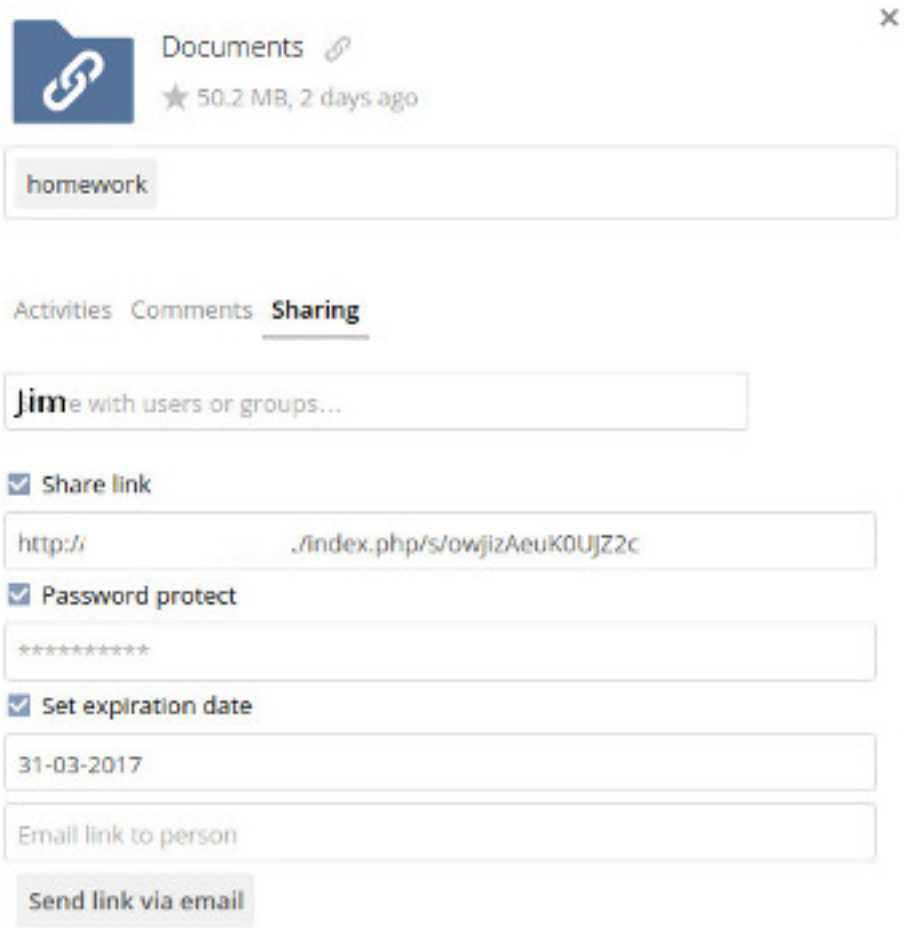
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Additional information and guidance

Learners will recognise that unless the content of their profile is secured there is a danger of somebody else editing it in an incorrect
or malicious manner. They will be able to provide evidence or commentary to back-up this knowledge.

Learners will understand the most common and effective ways of securing online content by demonstrating how they have protected
various types of material through permissions and locks on certain folders.

The picture following is of a cloud based system that allows file sharing and collaboration with some of the options available, such as
notifying the person or group you are sharing it with and the ability to have a URL that can be emailed to that person, such as a potential
employer.



1.5 I can understand the possible constraints local and or wider that could affect the way I tackle this brief
Learners will recognise that local constraints may affect their choice of solution

Evidence: ePortfolio

Additional information and guidance
In many instances, learners will be constructing this ePortfolio from within school or college and there may be restrictions on what they

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can do. These may include:

- AUP
- Availability of software applications
- Internet restrictions

In most cases, it would be preferable to use an online system that they have access to and it should be cleared through the school and
may be an extension of their existing system. Learners need to demonstrate that they understand these and can work with them as
far as possible.

2. Candidates will plan a secure working digital profile to promote their skills and understanding in a secure manner

2.1 I can produce a working plan, including success criteria, for the production of my digital profile

Learners will demonstrate a clear and concise plan for their project to make sure they can meet deadlines and targets.

Evidence: ePortfolio

Additional information and guidance
Learner plans will include:

- Clear timescales for each section of their work
- Success criteria against which they will judge their work
- Use of SMART targets where appropriate

2.2 I can show how my plan will clearly identify applications and file types to use for my digital profile

Learners will identify the materials used and systems to manage and create them.

Evidence: ePortfolio

Additional information and guidance

Learner plans will include:

- The applications learners propose to use for each section of their work
- The file types of the different components of their digital profile
- Overview of any potential issues and problems they will need to deal with

2.4 I can use plans to manage the security of my profile

Learner plans will detail how the integrity of the online profile will be maintained.

Evidence: ePortfolio

Additional information and guidance

Learners will be able to demonstrate their understanding and practical application of various tools and services in order to protect

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their material, while still making it flexible enough for collaborative work. This will take some careful planning and review of how they
implement this security to maintain some semblance of efficiency.

2.5 I can show how my plan takes effective steps to ensure that I comply with local or wider constraints
Learner will demonstrate a clear plan to make sure they can deal with most potential problems.

Evidence: ePortfolio

Additional information and guidance
Learner plans will show good awareness of constraints such as:

- AUPs
- Internet restrictions on school networks
- Availability of digital applications
- Time
- user skills

3. Candidates will create a secure working digital profile to promote their skills and understanding in a secure way

3.1 I can create a working system to manage my digital skills and knowledge
Learners will provide a digital ePortfolio that presents themselves and showcases their digital literacy for a designated job in the digital
sector or more general applications for college or work.

Evidence: ePortfolio

Additional information and guidance
The ePortfolio will contain an appropriate set of digital files or components depending upon the brief or the learner's interests. The
completed system should be semi-professional and be suitable for applications to college or work positions such as apprenticeships. It
is expected that these can be tested and receive feedback from potential employers or local colleges.

3.2 I can use appropriate digital applications and file types to present my online profile
Learners will show understanding of the properties of applications and file types.

Evidence: ePortfolio

Additional information and guidance

Depending on what type of courses the student is interested in and their experience will determine what types of files and media they will
be presenting as part of their ePortfolio. Some will have a collection of office based documents to show basic competence in IT, while
others will have complex media files created in their artistic subject areas.

In most cases the media presented will demonstrate their level of skills in the respective areas and they can gain feedback from
potential employers or further education advisors.

3.3 I can protect my system against the most common attacks
Learners will employ their skills and understanding in protecting online systems to make sure their own system is safe and secure.

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Evidence: ePortfolio

Additional information and guidance

Learners can produce a report of what threats they might experience and demonstrate what tools and techniques they have used to
minimise these as far as possible. This may be systems and services provided by their ISP, but they will still need to demonstrate
the advantages of these and why they have chosen them.

3.4 I can show how my system conforms to legal and local constraints
Learners profiles will comply with various laws and regulations.

Evidence: ePortfolio, assessor feedback

Additional information and guidance
Some of the key laws and regulations that need to be evidenced and verified by the learners will include, but not be limited to:

- AUP
- Copyright
- Plagiarism (content will be unique or properly acknowledged)
- Data Protection

4. Candidates will create a test regime to ensure the security and effectiveness of their profile

4.1 I can test my system against success criteria I have developed at the research and planning stage
Learners will demonstrate a project planning approach to their project overall and be able to match outcomes to objectives as far as
possible.

Evidence: ePortfolio, test results, assessor feedback

Additional information and guidance
Success criteria to form the basis for first line testing will include various qualitative and quantitative criteria such as:

- The ePortfolio will look “semi-professional”
- The material will be well organised and easy to navigate
- The material will only show what I want specific audiences to see
- There will be accommodation for viewers with disabilities
- The system will be tested to work with a variety of operating systems and browsers, as well as hand held systems

4.3 I can respond to feedback on my digital profile and modify my system
Learners will be able to respond politely and professionally to any feedback received and make adjustment accordingly.

Evidence: ePortfolio

Additional information and guidance

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Peer or other external assessment is a valid form of testing and learners should endeavour to get as much feedback on their system
as is possible. This will include during the planning stage and all through until the final production and unveiling. In all cases, the
learner must show a professional attitude to feedback and make sure that realistic feedback is acted on in order to improve the system as
far as possible.

4.4 I can test my system against the most common attacks
Learners will use their protocols developed in Unit 3, 3.4 in order to test their system

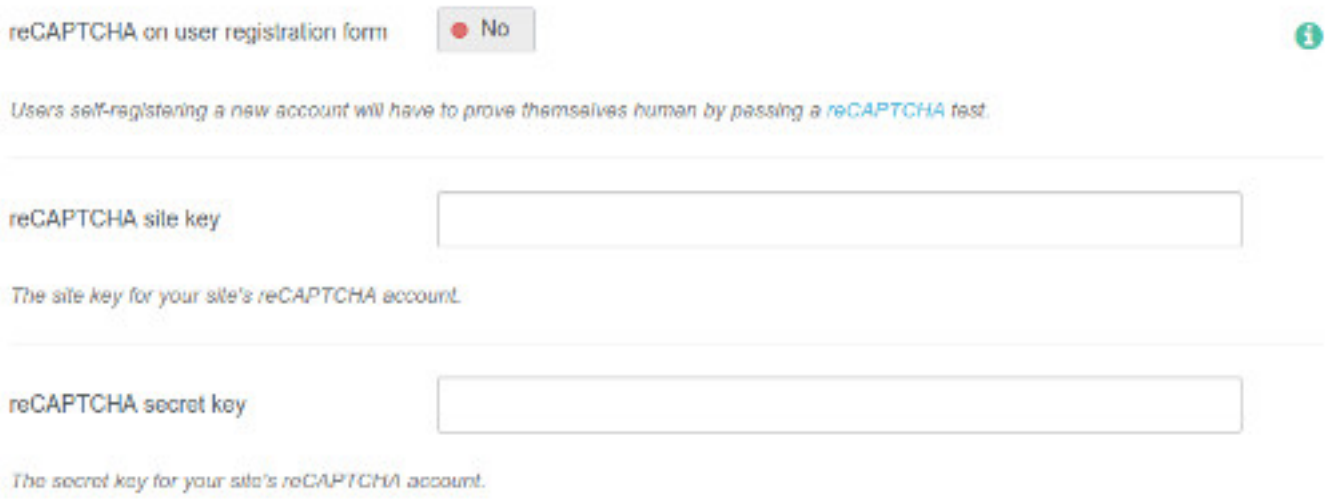
Evidence: ePortfolio

Additional information and guidance

Security of the ePortfolio will be tested for:

- password strength
- Read only versions for digital media
- produce possible brute attacks

If they allow other people to use their system, they might use some form of password policy or reCAPTCHA system such as the
following.



5. Candidates will evaluate and analyse the security and effectiveness of my profile
5.1 I can use digital as well as other methods for gathering feedback on my digital profile
Learners should be comfortable and competent using various methods to gather feedback on their system.

Evidence: ePortfolio

Additional information and guidance
Feedback to use a range of methods potentially including:

- Questionnaire
- Peer comment
- Online features such as forum, blog, bulletin board, forms, surveys etc.
- email contact

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5.2 I can reflect critically on my digital profile against clear objectives including its security
Learner reflects on the results of their testing against success criteria.

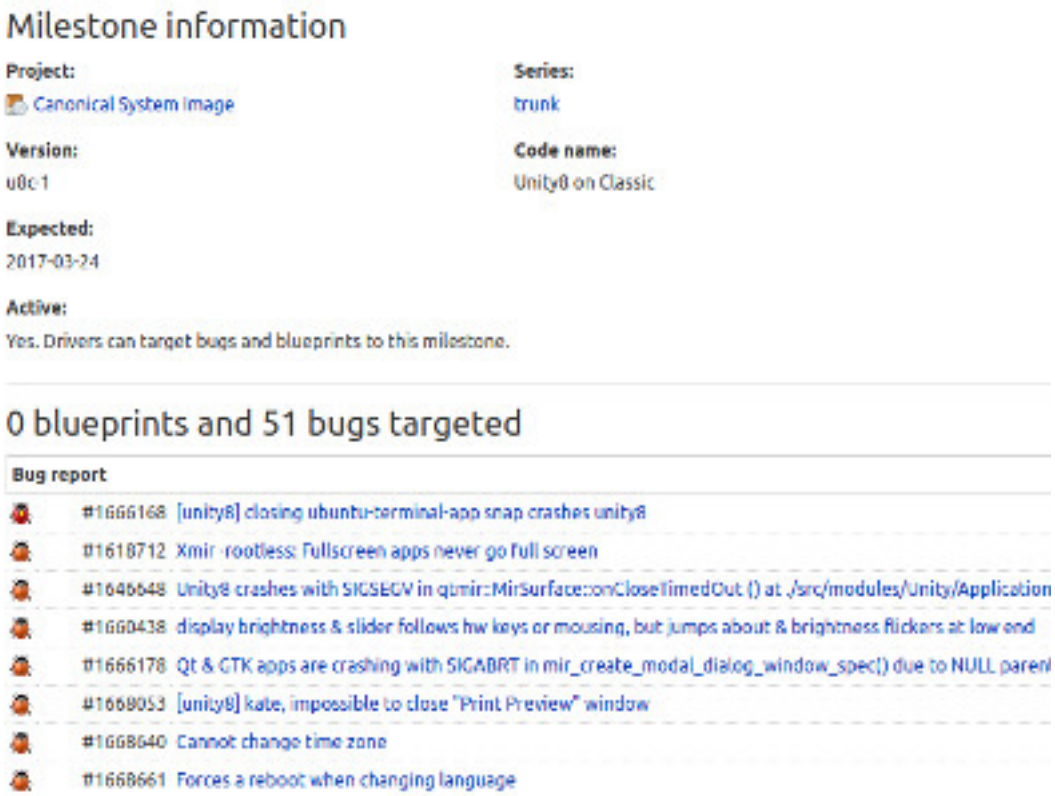
Evidence: ePortfolio reflective log pages

Additional information and guidance

This is a general criterion when learners can think about the success of certain aspects of their project and reflect to themselves and
others about what they have found successful and what aspects they may want to change for a later revision of the system.

In many cases with open source systems, it is probably worthchecking their support forums as there may well be other people
experiencing similar technical issues and it may well be a bug that is being worked on.

The following image shows a list of problems and potential fixes from the community for a piece of software that runs an open source
phone. Some of these issues may be experienced by the learners on their own system, so they need to check the software developer's
forums and places like GitHub to make sure they are not just experiencing that will soon go.



5.3 I can justify the tools I used to create my digital profile
Learner identifies strengths and weaknesses in their choices

Evidence: ePortfolio reflective journal pages

Additional information and guidance

The choice of ePortfolio platform that learners use will depend on what is available and what their preference is, as long as it is a web

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based system. TLM will provide an open source system using Mahara for students with guidance and support going forward.
Schools can also deploy the same systems.

In either case, the learners need to justify their choice through research and analysis. They can formulate a report with their ideas
and examples that helped them reach their final choice.

5.4 I can describe ways that I could further improve my digital portfolio over the coming years
Learners will be able to recognise no job is ever finished and the ePortfolio is part of lifelong learning.

Evidence: ePortfolio

Additional information and guidance

The completed ePortfolio will be a valuable tool for learners both now and into the future, regardless of what path they ultimately choose
post-16 and beyond. It will showcase their ICT skills and understanding as well as give them a platform to manage and share
their digital literacy in whatever form suits them and to what audience is required.

5.5 I can evaluate the tools that I used and recommend them to other users based upon productivity and efficiency savings they produce
Learners can showcase the entirety of their digital journey with all of their best material across the life of their school experience.

Evidence: ePortfolio

Additional information and guidance
Learners can select and organise all of the material they have created and use the platform to demonstrate their journey to
themselves and others.

They will have a wealth of material that may not be organised in a way that is useful. Here is their chance to make it part of their story.
Some of the material they may have created and can therefore showcase effectively will be:

- Website Production
- Digital Animation
- Digital Image Production
- Dealing with Data Digitally
- Digital Video
- Digital Games production
- Digital Communication
- Digital Publishing

This is just a selection and there are many that can be recommended to learners.

Source URL: https://theingots.org/community/opdsl2u4x

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