

CAMBRIDGE NATIONALS

Moderators' report

INFORMATION TECHNOLOGIES

J808

R013 Summer 2022 series

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Introduction

Our Lead Moderators' reports are produced to offer constructive feedback on centres' assessment of moderated work, based on what has been observed by the moderation team. These reports include a general commentary of accuracy of internal assessment judgements; identify good practice in relation to evidence collation and presentation and comments on the quality of centre assessment decisions against individual Learning Objectives (LO). This report also highlights areas where requirements have been misinterpreted and provides guidance to centre assessors on requirements for accessing higher mark bands. Where appropriate, the report will also signpost to other sources of information that centre assessors will find helpful.

OCR completes moderation of centre-assessed work in order to quality assure the internal assessment judgements made by assessors within a centre. Where OCR cannot confirm the centre's marks, we may adjust them in order to align them to the national standard. Any adjustments to centre marks are detailed on the Moderation Adjustments report, which can be downloaded from interchange when results are issued. Centres should also refer to their individual centre report provided after moderation has been completed. In combination, these centre-specific documents and this overall report should help to support centres' internal assessment and moderation practice for future series.

Advance Information for Summer 2022 assessments

To support student revision, advance information was published about the focus of exams for Summer 2022 assessments. Advance information was available for most GCSE, AS and A Level subjects, Core Maths, FSMQ, and Cambridge Nationals Information Technologies. You can find more information on our website.

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Unit R013 General overview

This was the largest session for R013 not only since the pandemic but also since the start of the qualification, indicating the continual growth of the importance of Information Technology as an offering in centres alongside GCSE Computer Science. While administration of the qualification by centres remains strong this increased size in entry was mirrored by a significant increase in the number of administrative issues seen.

There was a significant rise in the number of clerical errors seen, with marks being submitted through OCR interchange not matching the total marks submitted on the URS forms when the sample was received. It is the centres responsibility to make sure that this does not happen. The delay in waiting for these clerical errors leads to significant delays in the moderation process resulting in a possible delay in the issuing of grades to candidates.

There was also a significant rise in the number of samples being checked by moderators where work was missing or provided in an unacceptable format. The OCR Assignment provides a folder structure for candidates to save their work into. This structure when used correctly should make sure that no parts of candidates' work are omitted when submitted for moderation. This should then further ease the submission of the candidates work by allowing the folders and files contained within them, to be directly copied into the submission method chosen by the centre.

There was a rise this session where sample work submitted was directed back to the centre servers to find the hyperlinked/embedded files. This shows a lack of knowledge and understanding about how to create integrated documentation, one of the specific terms used within the specification. Centres should make sure that this is taught correctly and that when work is submitted, the linked/embedded files are correctly addressed ensuring that the correct files are found within the folder structure provided.

The OCR Assignment also specified a password to use in the assignment, this should be the only one used. Time was lost this session asking centres for passwords that candidates, some of who were on study leave, had used on their work.

Appendix A of the specification clearly lists the file types may be used to submit work. Centres must make sure that work submitted use these file types or file types for software that is open source/ free to acquire so that moderators can access the work. Moderators are not expected to have access to a wide variety of purchased software. There was an increase in the submission of work submitted using non-specified software again leading to delays in moderation as centres need to supply the work in the correct format.

Several centres reported issues with some software due to their centre system limiting access to certain aspects due to security protocols. While there is an acknowledgement that this situation exists, the educational opportunities for students should not be constrained by centre security settings. The assignments set will never require candidates to carry out processes not required within a normal business practice. As such these should be allowed within the centre environment. A balance needs to be struck between the educational needs of the candidates and the cyber security requirements of a centre where the candidates educational needs take precedents.

Since January 2022, when the same assignment was submitted for moderation, updates from Microsoft led to issues coming to the fore that did not exist in January. This was mitigated against in the guidance provided by moderators to make sure that no candidate was disadvantaged between the sessions.

Several COVID adaptations were allowed this session, including the use of the same assignment for both January and June. It was pleasing that the number instances where different methods of assessment used due to COVID was minimal and that most work produced followed in line with earlier sessions.

Comments by Learning Objectives (LO)

LO2 – To be able to initiate and plan a solution to meet an identified need

1a

This section of the project is concerned with the production of the initiation and planning documentation only. Hence any reference to the documents produced in the execution phase(s) is not relevant to the marks given here. This was a misconception seen from several centres. Marks beyond the lowest mark in mark band two cannot be given if there is not integration (direct linking) between a minimum of two initiation/planning documents.

To access the higher marking bands, it is expected that a report style document is produced that is styled effectively using technological tools such as tables of contents, header/footers, page numbers, etc. Within this document there should then be working hyperlinks to other initiation/planning documents. At the top end these other documents such a Gannt chart or digitally produced wireframes/ screen layouts should be embedded within the main document allowing real times updates to be applied. On paper-based submissions this integration cannot be seen.

OCR support



Useful guidance can be found on the qualification webpage.

2a

This section is concerned with how the scenario context has been answered, in this case Progress Cyber. OCR have attempted to increase the accessibility of the assignments to candidates by providing a simpler assignment style with bulleted lists. While this has had the desired effect, the last few sessions have seen an increase in submissions where candidates have reformatted the assignment and presented this as their work with little extra produced. This is not sufficient to meet the requirements of the specification and restricts the marks available. To access the higher mark bands candidates, must explain and justify the decisions that they make, including the success criteria chosen, when selecting the solution that they will develop.

An overreliance on the production of an analysis report together with a timeline of activities in a Gannt chart was seen. This level of planning does not support the awarding of marks in the higher marking bands. Candidates where the higher marks given were supported provided an array of planning documentation that expanded on the information in the analysis report. These included documents such as data dictionaries, interface designs, data flow illustrations for a range of the client requirements from the Progress Cyber scenario.

This section of the assignment is concerned with the information necessary to answer the scenario task. There should be no general theory work for example about legislation submitted. Any issues covered should be applied to the specific scenario of the project in this case Progress Cyber.

LO5 – To be able to import and manipulate data to develop a solution to meet an identified need

1b

This section refers to the use of technology in the data manipulation phase only. There was a range of choices seen within in this section with databases and/or spreadsheet software being used.

Within centres the same choices and tools/techniques within the software tended to be used, with some centres almost being formulaic in the choice and approach taken by the candidates. In centres where the course has been embraced fully the choice of the tools/techniques used by individual candidates varied and has been supported in the moderation process as a result.

Integration of the data in this phase can be clearly seen within a database where data is entered into a table using a form or retrieved from a table using a query which utilises criteria. Integration has also been seen in this phase in spreadsheet software where formulas and functions pull data from different cells to produce results that are placed in different locations within the spreadsheet.

2b

In this scenario candidates were required to produce a system that stored client data while ensuring but the data was displayed fully within the system and protected from unauthorised access. The second aspect or the scenario involved candidates carrying out a series of calculations to predict the number of cyber security attacks but would take place in 2021. These predictions would be output in a series of dynamic charts where comparisons could be seen between 2020 and 2021.

Most candidates created a system that stored client's data and produced an interface that provided ease of use for the user. However, the biggest differentiator across the work seen was the meeting of the client's requirement for a date-based search of the enquires field. Where database software had been utilised candidates had either used a parameter query to gain the correct data or had simply repeated the view of the data from the table producing irrelevant results. Where spreadsheet software had been used, the meeting of this client requirement was in general poorly done, resulting in incorrect data being outputted.

It was noted that the evidence provided for the Cyber Security Attack by candidates in a centre tended to demonstrate similar interpretations. Hence where a wrong interpretation of the client requirement was seen the marks for the whole centre were affected at moderation. While acknowledging that candidates will adopt a style of working that they have been taught by their teacher, candidates are still required to make their own decisions in how to develop their solution to the assignment.

Where the Cyber Security Attack prediction was correctly interpreted, this was in the main well carried out however the main differentiator on this aspect was where candidates incorrectly calculated the decrease in attacks between the calendar months. This resulted in correct data being output in the dynamic charts.

LO7 – To be able to select and present information in the development of the solution to meet an identified need

1c

This section is concerned only with the use of technologies to output information and is not concerned with any manipulation of data. The integration in this phase was concerned with the embedding of data from the client enquiry search into a letter and through the linking of two presentations together with the dynamic charts.

The tools and techniques used in DTP, presentation and word processing saw a range of effectiveness across the entry. This provided a sound level of differentiation across the country.

As in previous sessions and scenarios the choice of appropriate communication methods is important. As mentioned earlier in this report, centres expressed concern over issues with linking mail merged documents with data from a database due to security limitations placed on centre systems. Where the merge information could be seen i.e., looking back to the database file, this was given as showing the use of integration. This allowed marks in 1c to be supported where appropriate. However, where these links were seen to be directing back to an incorrect source i.e., a table rather than the search results the marks for 2c were not supported as this did not meet the client requirements.

In future sessions centres could adopt different approaches to negate this system security issue.

- 1. Run the mail merge at creation and print off the subsequent letters as PDF copies showing the output. This would show the necessary integration and results.
- 2. Instead of mail merging out the data, which in some ways is now an older method of performing the task. Candidates could format a database report as a letter. This would then mean that the whole process would be carried out inside the one application but with the data flowing through different aspects of the software demonstrating integration across different features of the software package. This would in turn meet the clients' requirements.

It should be noted that Appendix A of the specification covers the file formats that can be used to submit work. Centres are advised to consider using a final file format such as PDF to present some of the work.

2c

The scenario required the production of several outputs:

- * client letter (based on a date input)
- * information Guide (A5 landscape)
- * main Exhibition presentation linked to a second, visual statistics presentation
- * visual statistics presentation.

Within the assignment the client specified the contents and formatting required for some of the documents. In line with the vocational nature of this course these formatting requirements should have been followed through and used in all the documents produced for Progress Cyber. This however tended not to have been seen. Centres should take note of this for future sessions. Where individual documents were formatted in line with the client requirements this tended to be well done.

Two of the main marking aspects for 2c is that information should be communicated ensuring a suitable use of data to support the project requirements and that there is no miscommunication possible. Hence, where incorrect data has been produced in the dynamic charts or where the letters were sent to the incorrect recipients due to a lack of the enquiry date base search, marks for this could not be supported. Candidates need to make sure that the information presented is accurate and relevant to the audiences in the scenario.

Assessment for learning



This is not an NEA and while there are only 20 hours given to the production of the work candidates are able to research and discuss existing 'real world' examples of the documents outside of this time. This could then inform the production of these documents in this phase, ensuring that they properly fit the vocational context of the course.

LO8 – To be able to iteratively review the development of the solution

3a

This section requires two aspects to be carried out.

At the end of each phase an iterative review should take place as stipulated in the assignment for task 2, task 4 and task 6. This structure has been put in place to make sure that candidates do not review aspects of the project that are not required. However, several centres were seen where candidates had continued to review all aspects of the project as in earlier assignments. This places an undue demand on the candidate and centres should note the number of iterative reviews required in each set assignment.

The quality of the reviews seen this session showed more detail than in earlier sessions with less reliance on a tick box format of review and greater use of commentaries being made. However, candidates still need to be more reflective in their reviews by commenting on the impact on their work of what they did or did not do effectively.

The final evaluations still overall tend to be descriptive in tone. To access the highest mark bands in this section, candidates need to be reflecting on how their system meets the success criteria that they wrote in Section 2a. This places greater emphasis on the requirement for candidates to develop success criteria in Section 2a that they can be clearly measured against.

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