

2017 Project log

A-level Computer Science (7517)

Computing Practical Project (7517/C)

Please attach a copy of this form securely to the front your candidate's work.

Centre number	Centre name
	AQA
Candidate number	Candidate's full name
	PROJECT F

Section one - the project

To be completed by the candidate and returned to the teacher for approval before the project is started

Project title

Project type

Outline description

A system for a local takeaway to take orders and provide delivery/order times and allocate individual order parts out to a group of chefs.

To be completed by the teacher:

From the given description the project is at a standard required for A-level

Yes

Section two – project assessment

To be completed by the teacher

Analysis		Mark	Comments/evidence
Level	Criteria		
3	<p>Fully or nearly fully scoped analysis of a real problem, presented in a way that a third party can understand. Requirements fully documented in a set of measurable and appropriate specific objectives, covering all required functionality of the solution or areas of investigation. Requirements arrived at by considering, through dialogue, the needs of the intended users of the system, or recipients of the outcomes for investigative projects. Problem sufficiently well modelled to be of use in subsequent stages.</p>	7-9	<p>The background is brief and there is a lack of analysis as to the current working of the takeaway. It would be nice to see a copy of their menu / list of dishes etc and a better interview (current interview does not really gather much information that will be of use later in the design). For example – can more than one dish be cooked at the same time by a chef? Do all the dishes take the same time to cook?</p> <p>The objectives are poor – some are measurable but lack fleshed out detail.</p>
2	<p>Well scoped analysis (but with some omissions that are not serious enough to undermine later design) of a real problem. Most, but not all, requirements documented in a set of, in the main, measurable and appropriate specific objectives that cover most of the required functionality of a solution or areas of investigation. Requirements arrived at, in the main, by considering, through dialogue, the needs of the intended users of the system, or recipients of the outcomes for investigative projects. Problem sufficiently well modelled to be of use in subsequent stages.</p>	4-6	
1	<p>Partly scoped analysis of a problem. Requirements partly documented in a set of specific objectives, not all of which are measurable or appropriate for developing a solution. The required functionality or areas of investigation are only partly addressed. Some attempt to consider, through dialogue, the needs of the intended users of the system, or recipients of the outcomes for investigative projects. Problem partly modelled and of some use in subsequent stages.</p>	1-3	
	No evidence presented	0	Mark awarded: 4

Documented design		
Level	Criteria	Mark
4	Fully or nearly fully articulated design for a real problem, that describes how all or almost all of the key aspects of the solution/investigation are to be structured/are structured.	10-12
3	Adequately articulated design for a real problem that describes how most of the key aspects of the solution/investigation are to be structured/are structured.	7-9
2	Partially articulated design for a real problem that describes how some aspects of the solution/investigation are to be structured/are structured.	4-6
1	Inadequate articulation of the design of the solution so that it is difficult to obtain a picture of how the solution/investigation is to be structured/is structured without resorting to looking directly at the programmed solution.	1-3
	No evidence presented	0
		Mark awarded: 9

Comments/evidence

The files are introduced but it would be nice to see how they will be used – perhaps a run through of how an order would be processed and utilise the files designed. Nothing really about how the files will be processed.

Two algorithms planned out but these are fairly simple ones and it is still not clear how they really work (perhaps if an order was run through as mentioned above this would be a lot clearer).

There is some redundancy in this design but partly due to the choice of using sequential files rather than a DB.

Good discussion around the HCI.

Placed into level 3 – the design is adequately articulated. Most aspects are structured out but I am still left with some questions as to how it will all work as a system.

Technical solution – completeness		
Level	Criteria	Mark
3	A system that meets almost all of the requirements of a solution/an investigation (ignoring any requirements that go beyond the demands of A-level).	11-15
2	A system that achieves many of the requirements but not all. The marks at the top end of the band are for systems that include some of the most important requirements.	6-10
1	A system that tackles some aspects of the problem or investigation.	1-5
	No evidence presented	0
		Mark awarded: 9

NOTES:

Completeness is not only about how well a solution meets the objectives set by the student but also what an expected technical solution might perform for this particular project.

Technical solution – techniques used		
Level	Criteria	Mark
3	The techniques used are appropriate and demonstrate a level of technical skill equivalent to those listed in Group A in Table 1 . Program(s) demonstrate(s) that the skill required for this level has been applied sufficiently to demonstrate proficiency.	19-27
2	The techniques used are appropriate and demonstrate a level of technical skill equivalent to those listed in Group B in Table 1 . Program(s) demonstrate(s) that the skill required for this level has been applied sufficiently to demonstrate proficiency.	10-18
1	The techniques used demonstrate a level of technical skill equivalent to those listed in Group C in Table 1 . Program(s) demonstrate(s) that the skill required for this level has been applied sufficiently to demonstrate proficiency.	1-9
	No evidence presented	0
NOTES:		Mark awarded: 17

Technical Skills:
There is evidence of a few group A skills – for example use of a queue appropriately for this project.
The sequential file use if a group B skill
Group B – multi dimensional arrays
Group B – use of records

Coding Style:
There is quite a lot of code duplication and the problem could have been decomposed in a better way that could have helped this out.

Placed into level 2 as even though there is evidence of some group A skills these are quite trivial and the majority of the project is based around processing sequential files (group B). The coding style also lets down the technical solution.

NOTES:

The mark to be awarded, within the level, should be decided upon using these factors:

- (1) The extent to which the criteria for the level have been achieved
- (2) The quality of the coding style that the student has demonstrated
- (3) The effectiveness of the solution.

It would be beneficial for these to also be referred to in the comments/evidence section.
Table 1 referred to is on pages 95-96 of the specification (version 1.4 December 2016)
Continue on a separate sheet if necessary

Testing Level		Criteria	Mark	Comments/evidence
4	Clear evidence, in the form of carefully selected representative samples, that thorough testing has been carried out. This demonstrates the robustness of the complete or nearly complete solution/thoroughness of investigation and that the requirements of the solution/investigation have been achieved.	7-8	Screenshot evidence lacks annotation / detail. There is no real test of a couple of orders completely running through the system (a system test).	
3	Extensive testing has been carried out, but the evidence presented in the form of representative samples does not make clear that all of the core requirements of the solution/investigation have been achieved. This may be due to some key aspects not being tested or because the evidence is not always presented clearly.	5-6	No definitive checking that the system is behaving as expected. Does it allocate items to the correct chef? Do the prices add up correctly? Can we remove an item from an order? Would be nice to have the contents for a couple of orders planned out and then tested. With a manual calculation as to how they order should be handed out to the chefs and then the system monitored as to how it behaves.	
2	Evidence in the form of representative samples of moderately extensive testing, but falling short of demonstrating that the requirements of the solution/investigation have been achieved and the solution is robust/investigation thorough. The evidence presented is explained.	3-4	Testing has been performed but it does not make clear that all of the core requirements have been achieved. Evidence is not always presented clearly.	
1	A small number of tests have been carried out, which demonstrate that some parts of the solution work/some outcomes of the investigation are achieved. The evidence presented may not be entirely clear.	1-2		
	No evidence presented	0	Mark awarded: 6	

Evaluation		
Level	Criteria	Mark
4	<p>Full consideration given to how well the outcome meets all of its requirements.</p> <p>How the outcome could be improved if the problem was revisited is discussed and given detailed consideration.</p> <p>Independent feedback obtained of a useful and realistic nature, evaluated and discussed in a meaningful way.</p>	4
3	<p>Full or nearly full consideration given to how well the outcome meets all of its requirements.</p> <p>How the outcome could be improved if the problem was revisited is discussed but consideration given is limited.</p> <p>Independent feedback obtained of a useful and realistic nature but is not evaluated and discussed in a meaningful way, if at all.</p>	3
2	<p>The outcome is discussed but not all aspects are fully addressed either by omission or because some of the requirements have not been met and those requirements not met have been ignored in the evaluation.</p> <p>No independent feedback obtained or if obtained is not sufficiently useful or realistic to be evaluated in a meaningful way even if attempted.</p>	2
1	<p>Some of the outcomes are assessed but only in a superficial way.</p> <p>No independent feedback obtained or if obtained is so basic as to be not worthy of evaluation.</p>	1
	No evidence presented	0
		Mark awarded: 0

No evidence presented.

Total mark 45 / 75
Concluding comments: This project is slightly let down by the initiative of the student to fully perform research in the analysis stage. Whilst the takeaway does exist the student never really talked to the manager / customers / chefs or really analysed their operational process. The technical solution is appropriate for an A-level project but the student did not wish to implement a DB or an online system and preferred to stick with an environment they already had experience of (Delphi).
Signed: _____ Date: _____