

MANCHESTER METROPOLITAN UNIVERSITY  
SCHOOL OF COMPUTING, MATHEMATICS AND DIGITAL  
TECHNOLOGY  
ASSIGNMENT COVER SHEET

<b>Unit:</b>	6G7Z1029 MSc Data Science Project
<b>Assignment set by:</b>	N. Costen
<b>Verified by:</b>	J. Borrensens
<b>Moderated by:</b>	J. Borrensens
<b>Assignment number:</b>	1CWK100
<b>Assignment title:</b>	Dissertation and Viva
<b>Type:</b>	Individual
<b>Hand-in format and mechanism:</b>	Via Unit area on Moodle
<b>Deadline:</b>	Friday 27th September 2019, 23:55

**Learning Outcomes Assessed:** This assignment will assess your ability to:

- plan and carry out a programme of research or design work using appropriate methods, involving experimentation/implementation;
- apply practical and analytical skills demonstrated in the programme as a whole in order to present obtained results in an appropriate way;
- apply innovation and/or creativity to solve a well-defined current problem or systems requirement and synthesise information, ideas and practices to provide a quality solution together with an evaluation of that solution;
- use, evaluate and critically assess relevant literature;
- analyse relevant legal, ethical, professional and social issues, and associated risks;
- evaluate the work and the results in the context of other published works and appropriate industry benchmarks.

**Penalties for late hand-in:** See Regulations for Postgraduate Programmes of Study: <https://www.mmu.ac.uk/academic/casqe/regulations/assessment/docs/pg-regs.pdf>. The timeliness of submissions is strictly monitored and enforced.

**Exceptional Factors affecting your performance:** See Regulations for Postgraduate Programmes of Study: <https://www.mmu.ac.uk/academic/casqe/regulations/assessment/docs/pg-regs.pdf>

**Plagiarism:** This is the unacknowledged representation of another person's work, or use of their ideas, as one's own. MMU takes care to detect plagiarism, employs plagiarism detection software, and imposes severe penalties, as outlined the Regulations for Postgraduate Programmes (<https://www.mmu.ac.uk/academic/casqe/regulations/assessment/docs/pg-regs.pdf>). Bad referencing or submitting the wrong assignment may still be treated as plagiarism. If in doubt, seek advice from your tutor.

Assessment Criteria:	Indicated in the attached assignment specification.
Formative feedback:	Written and spoken feedback will be provided throughout the unit period, via the one-to-one supervision process.
Summative feedback format:	Marking grid and written feedback (specified in a separate document) will be provided.
Weighting:	This Assignment is weighted at 100% of the total unit assessment.

## 7Z1029 Msc Data Science Project - Dissertation and Viva

The Project unit has a single piece of work, an exercise to specify, investigate and solve (through the implementation of a product) an agreed problem. This is assessed through two elements; the Dissertation and Viva. The latter element provides students with an opportunity to explain their achievements in person. The requirements and procedures for Project as a whole, and its constituent parts are set out in a separate document (the “Project Handbook”); this document describes the marking criteria for the Dissertation.

The following is a short, indicative, descriptions of the characteristics of the components of this element of assessment. In each case, longer descriptions are given in the Project Handbook.

- **The Dissertation** This is a description of the project achievements containing, as a minimum requirement, a discussion of the problem being addressed, a critical review of relevant literature and related work, and a description and critical evaluation of the solution proposed. Normally, a project Dissertation is expected to contain 10,000-15,000 words, and should not normally exceed 20,000 words.

The Dissertation must have the project’s Terms of Reference and Ethics certificate included with it, as an appendix. Failure to do so will be treated as evidence to subvert the University’s Research Ethics and Governance regulations and will be treated appropriately.

- **The Viva** The individual student will give a formal presentation of the findings of the project to the Project Supervisor and the second reader. This will be recorded on video and will involve answering a pre-defined set of questions. These will cover a range of different aspects of the project. The viva will be assessed based on organisation, oral fluency, adherence to time constraints, and the ability to answer questions with clarity, conciseness, understanding and critical appraisal of the work done and of the techniques and tools employed.

## Submission Arrangements

Final submission will occur on the evening of Friday 29/09/19, at 23:55. At that point, you must upload onto Moodle your Dissertation materials. Work uploaded after this time will be treated in accordance with the University regulations (at the time of writing, these state that such work shall be marked as 0%, unless you have made an approved application for Exceptional Factors or have a negotiated Personal Learning Plan extension). Submission of the viva will occur on the evening of Wednesday 02/10/19, at 23:55, again by Moodle upload of a video.

Some students may be given an additional period to complete their project, as a consequence of a Personal Learning Plan, or a delayed deadline, as a consequence of Exceptional Factors. In both bases, these will be considered to apply to the date of the Viva, as well as the Dissertation.

**File names** All of the documents you submit should be PDFs and follow a consistent naming convention. They should be identified by your full name and the type of content they contain in form: **Surname\_Firstname\_Dissertation**. Thus Nicholas Costen would upload a document named **Costen\_Nicholas\_Dissertation.pdf** and **Costen\_Nicholas\_Video.** (other video formats are allowed).

**Feedback** Formative feedback will be given informally in the supervision sessions, and also formally on the various components. This will occur through Moodle and subject to the normal three-week feedback deadlines.

## Assessment Criteria

The criteria are designed to align with the University's graduate outcomes. These are:

1. Apply skills of critical analysis to real world situations within a defined range of contexts;
2. Demonstrate a high degree of professionalism, e.g. initiative, creativity, motivation, professional practice and self management;
3. Express ideas effectively and communicate information appropriately and accurately using a range of media including ICT;
4. Develop working relationships using teamwork and leadership skills, recognising and respecting different perspectives;
5. Manage their professional development reflecting on progress and taking appropriate action;
6. Find, evaluate, synthesise and use information from a variety of sources;
7. Articulate an awareness of the social and community contexts within their disciplinary field.

Your work will be marked by two members of academic staff; by default these will be your supervisor and one other academic, expert in the area of your work. They will assess your submissions independently, before seeking to agree a mark for each component. If they cannot agree a mark, your work will be given to a third academic to assess. The unit leader will then assign a mark, on the basis of the three assessment reports.

The criteria for different levels of success in the Project are given in the next three pages. Note that the columns are independent, so different boxes may apply to the various components of the overall mark.

## Re-assessment Arrangements

This assignment brief also covers re-assessment. Should a student be determined by the examiners to have failed to meet the pass mark for this assignment (this is 50% overall), they will, in completing the free-text assessment feedback, provide a list of aspects of the assignment which need to be amended to reach the 50% level. Should a student fail to submit the assignment, a mark of zero will be recorded and no feedback given. The feedback will include a recommendation on the nature of the re-assessment process. Deadlines for reassessment of Projects are usually flexible, being set in the light of the examination board dates and a need to maximize the probability of a speedy pass by the student.

## Marking criteria

### Dissertation

Mark Steps	Report structure, quality of academic English, quality of referencing (14.25%).	Understanding, clarity of research question (9.5%)	Literature survey (14.25%).	Discussion of research approach, including, if appropriate, professional, legal and ethical issues. (14.25%).
96, 100%	The dissertation was presented creatively and persuasively, in a manner appropriate for multiple audiences, using a wide range of appropriately selected strategies and expressed with clarity.	A complex and innovative project was designed and planned meticulously to produce original outcomes of publishable quality.	The survey addressed novel and complex problems, evaluating them thoroughly with reference to theory and practice and generating original solutions, expressed with clarity.	The context of the research is critically evaluated in developing action plans, articulating conclusions and making recommendations of relevance to theoretical development and/or practical application.
72, 75, 80 85%	The dissertation was presented convincingly and fluently, in a manner appropriate for a defined audience, using a interesting range of appropriately selected strategies.	A complex project was designed and planned thoroughly to produce outcomes of workable quality.	The survey addressed novel and complex problems, evaluating them with reference to theory and practice and generating original solutions.	The context of the research is critically evaluated in developing action plans, articulating conclusions and making recommendations of relevance to theoretical development and/or practical application.
62, 65, 68%	The dissertation was presented confidently and coherently, in a manner appropriate for the audience, using a range of appropriate strategies.	A project was designed and planned carefully to produce outcomes of workable quality.	The survey addressed novel and complex problems, confidently evaluating them with reference to theory and practice.	The context of the research is analysed carefully in drawing conclusions and making recommendations.
52, 55, 58%	The dissertation was presented clearly and appropriately, to a defined audience, using a range strategies.	A project was designed and planned to produce outcomes of acceptable quality.	The survey addressed novel and complex problems, evaluating them with reference to theory and practice.	The context of the research is analysed critically in drawing conclusions and making recommendations.
42, 45, 48%	The dissertation was presented in an unclear and confused manner, using inconsistent strategies.	A partial attempt was made to design and plan a project.	The survey partially evaluated novel and complex problems with limited reference to theory and practice.	The context of the research is identified in a partial or limited manner.
22, 25, 28, 32, 35, 38%	The dissertation was presented in an unclear and inappropriate manner, using inconsistent strategies.	A limited attempt was made to design and plan a project.	The survey inadequately evaluated novel and complex problems with little reference to theory and practice.	The context of the research is identified in a limited or incorrect manner.
2, 5, 8, 12, 15, 18%	The dissertation was presented in an unclear and inappropriate manner.	Little or no attempt was made to design and plan a project.	Little or no evaluation of novel and complex problems or reference to theory and practice.	Little or no identification of the context of the research.
MMU 0%	No submission			
				CMDT

Mark Steps	Presentation of findings, including quality of software produced (19%).	Discussion and evaluation of work and finding, and relationship to literature, conclusion (14.25%).	Degree to which objectives have been met (9.5%).
85, 96, 100%	The outcomes were presented creatively and persuasively to multiple audiences. The software demonstrates an original solution, generated with reference to theory and practice. The project was meticulous, generating a publishable outcome.	The evaluation was carried out thoroughly with reference to theory and practice, generating original solutions. There is evidence of exemplary critical reflection on their own performance. A creative and credible vision of themselves and their future is meticulously presented.	The objectives were met through work which was autonomous and creative, carried out with reference to professional standards and values, showing evidence of critical reflection on their own practice.
72, 75, 80 85%	The outcomes were presented convincingly and fluently to a defined audience. The software demonstrates an original solution, generated with reference to theory and practice. The project was thorough, generating a workable outcome.	The evaluation was carried out with reference to theory and practice, generating original solutions. There is evidence of critical reflection on their own performance. A novel and feasible vision of themselves and their future is presented.	The objectives were met through work which was autonomous and imaginative, carried out with reference to professional standards and values, showing evidence of critical reflection on their own practice.
62, 65, 68%	The outcomes were presented confidently and coherently to a defined audience. The software demonstrates a solution generated with reference to theory and practice. The project was careful, generating an appropriate outcome.	The evaluation was carried out confidently with reference to theory and practice. There is evidence of critical reflection on their own performance. A fully worked vision of themselves and their future is presented.	The objectives were met through work which was autonomous, carried out with reference to professional standards and values, showing evidence of critical reflection on their own practice.
52, 55, 58%	The outcomes were presented clearly and appropriately to a defined audience. The software demonstrates a solution generated with reference to theory and practice. The project generated an appropriate outcome.	The evaluation was carried out with reference to theory and practice. There is some evidence of reflection on their own performance. A vision of themselves and their future is presented.	The objectives were met through work which was carried out with reference to professional standards and values, showing evidence of critical reflection on their own practice.
42, 45, 48%	The outcomes were presented in an unclear and confused manner. The software demonstrates a partial solution generated with limited reference to theory and practice. The project generated a partial outcome.	The evaluation was carried out with limited reference to theory and practice. There is little evidence of reflection on their own performance. A limited vision of themselves and their future is presented.	The objectives were met to a limited degree, showing limited evidence of autonomous work or critical reflection on their own practice.
22, 25, 28, 32, 35, 38%	The outcomes were presented in an unclear and inappropriate manner. The software demonstrates an inadequate solution generated with little reference to theory and practice. The project generated a limited outcome.	The evaluation was carried out with little reference to theory and practice. There is little or no evidence of reflection on their own performance. Insufficient vision for themselves and their future is presented.	The objectives were met to a limited degree, showing limited evidence of any autonomous work or critical reflection on their own practice.
2, 5, 8, 12, 15, 18%	The outcomes were presented in an unclear and inappropriate manner. The software demonstrates little or no solution generated with little or no reference to theory and practice. The project generated little or no outcomes.	The evaluation was carried out with little or no reference to theory and practice. There is little or no reflection on their own performance. No clear vision for themselves and their future is presented.	The objectives were met to little or no degree, showing limited or no evidence of any autonomous work or critical reflection on their own practice.
0%	No submission		

**Viva**

Mark Steps	Features (5%).
96, 100%	The work involved in the project is presented creatively and persuasively in a manner appropriate for multiple audiences, using a range of strategies and media. The work's wider implications are considered, yielding original insights into the field.
72, 75, 80 85%	The work involved in the project is presented convincingly and fluently to the defined audience, using a range of strategies and media. The work's wider implications are considered, yielding a meticulous analysis of the field.
62, 65, 68%	The work involved in the project is presented confidently and coherently to the defined audience, using a range of strategies and media. The work's wider implications are considered, yielding a critical review of the field.
52, 55, 58%	The work involved in the project is presented clearly and appropriately to the defined audience, using a range of strategies. The work's wider implications are evaluated, drawing conclusions and making recommendations.
42, 45, 48%	The work involved in the project is presented haltingly to the defined audience using inconsistent strategies. The work's wider implications are referred to in very basic terms when drawing conclusions and making recommendations.
22, 25, 28, 32, 35, 38%	The work involved in the project is presented in a unclear and inappropriate manner, using inconsistent and inappropriate strategies. The work's wider implications are not mentioned or have erroneous references when drawing conclusions and making recommendations.
2, 5, 8, 12, 15, 18%	The work involved in the project is presented incomprehensibly, using an unacceptably inconsistent range of strategies. The work's wider implications are not mentioned or used when drawing conclusions and making recommendations.
0%	No submission