IOT635 Assessment Brief – 002 Final Report

Module Code	**IOT635**
Module Title	Final Project
Module Organiser	Alex Cline
Assessment	Final Report
Weighting (%)	90%
Deadline	Monday 20th April 2026 at 23:59 GMT
Duration / Length	10000 words

Assessment Outline

The purpose of the final report is to provide a capstone assessment for your degree apprenticeship programme, showing a broad understanding of digital technologies as well as significant expertise within your specialism. The report should focus on work that has value both in a workplace and in an educational context. As a result, you will have both a workplace and an academic supervisor. The report will also be used as a basis for part of your End Point Assessment (EPA).

Final Report Structure

It is expected that you will use the following structure:

1. **Cover Sheet** – include Student Name, Student ID, Module and Assessment details, and word count
2. **Abstract**
3. **Table of Contents**
4. **Introduction, Scope and Context**
   A clear and thorough definition of the aims and objectives of the project, as well as a clearly defined scope and context. Recall that the project should have both business and educational value; you should aim to demonstrate original and advanced work showing both significant technical competency and business insight.
5. **Methodology and Project Plan**
   A detailed description of the approach taken with the project, including a detailed review of both technical and business-level requirements. The methodology should discuss the tools, technologies and practices adopted. The project plan should be a comprehensive and active document, showing both the intent and reality of project execution. This is also where you discuss your approach to the project as a whole.

6. **Preliminary Research and Design Documentation**
   This section of the report should include a substantial review of literature, including relevant academic literature, technical documentation and reports, business cases and industry or domain specific material. An effective review will synthesise knowledge from diverse sources, provide original analysis, and provide insights for the implementation of the project. You should then discuss how your research has resulted in the adoption of specific technologies and techniques, providing relevant evidence of design documentation (e.g., formal requirements, data models, architecture diagrams, user interface designs, etc...) for the specific artefact or artefacts you will create. You should also include evidence of any preliminary technology experimentation or data exploration which contributed towards a proof of concept.
7. **Project Implementation and Outcomes**
   This section will review the implementation of your project, showing your mastery of the knowledge and skills associated with your pathway and your excellence as a technical professional. In this section, it is useful to focus on specific challenges you faced during the implementation of the project, and how those challenges lead to new knowledge and skills in your field of practice. Evidence should be provided of your material work with data, code, business processes or information systems, in line with the requirements of the apprenticeship. In exceptional cases where it is not possible to submit code or reports for compliance reasons, it may be possible for your employer supervisor to review your application and submit evidence of its completeness.
8. **Evaluation and Conclusions**
   This section will evaluate the implications of your work with the project, providing a thorough analysis of your individual learning as well as any relevant lessons or recommendations for your organisation. You should return to the requirements and original design of your project and any technical work you have done as part of it, evaluating your work against these requirements and designs using techniques appropriate to your specialism (e.g., automated tests, user feedback, or benchmarking). An effective conclusion will demonstrate what has been accomplished, as well as what has been learned from the work.
9. **References** – Harvard format.
10. **Appendices** – number and name these with sub-headings appropriately e.g., “Appendix 1 – Specialism KSB Mapping”

There are no set word counts per section, but you should review the assessment criteria at the end of this document to understand how the sections will be marked.

While there may be a temptation to use tables or bullet points to structure your report, you should ensure that writing is not fragmented. Figures and code samples should be included where relevant. Appendices showing evidence of work will be helpful for your supervisors and for markers, but they will not count towards the word count or be formally marked.

You will have a viva for your project as part of the End Point Assessment module, however it may be necessary for an additional viva to be organised if there are any concerns about academic integrity, inappropriate use of artificial intelligence, or if limited evidence of outcomes is submitted.

Academic Integrity

Plagiarism, falsification, or inappropriate use of AI tools will be treated as academic misconduct. Ensure you are familiar with the types of academic misconduct outlined in the QMUL Academic Integrity and Misconduct policy available here. If you are unsure about anything related to academic integrity or misconduct, please reach out to your module organiser.

For this assessment, please review the following note:

You may resubmit sections of the interim report assignment within your final project report. However, you should not submit work from other assignments or apprenticeship reflective statements without explicit permission.

Generative AI

Use of Generative AI (e.g., MS Copilot or ChatGPT) is permitted for this assessment but must ***not*** be used to generate text which you then submit as your own as this is academic misconduct. If using spelling or grammar assistive tools, ***avoid*** using any Generative AI functionality which rewrites non-trivial portions of your work.

Avoid relying on Generative AI to format your references as these tools can often produce references which do not exist.

For more information, please see https://www.qmul.ac.uk/library/academic-skills/student-guide-to-generative-ai/.

For this assessment, please review the following note:

The use of generative artificial intelligence technologies is permitted for research purposes; however, there are noted issues with the unreliability of language models in curating, organising and interpreting references. You have a responsibility for assuring the integrity of any references or statements made in the report. You should also be aware of any organisational policies around the use of artificial intelligence.

Effective use of assistance technologies will not reduce the amount of work you do or the amount of ownership you feel over a report.

Late Submissions and Extenuating Circumstances

Assessments submitted after the published deadline will be marked as late and will receive a penalty, unless you have approved Extenuating Circumstances (EC).

You may submit up to seven calendar days after the deadline but a penalty of 5% of the total marks available will be applied to the assessment for each 24-hour period (or part of it) that the work is late (e.g. five marks deducted each day from a total of 100). After seven calendar days the assessment will be recorded as a non-submission and given a mark of zero.

For more information, you can find the latest Assessment Handbook and Extenuating Circumstances policy via the QMUL policies page here: https://www.qmul.ac.uk/governance-and-legal-services/policy/policies-by-category/

Knowledge, Skills, and Behaviours (Apprenticeship)

This assessment is designed to help you evidence the following core Knowledge, Skills, and Behaviours (KSBs) from your apprenticeship standard:

K1 How business exploits technology solutions for competitive advantage.

K2 The value of technology investments and how to formulate a business case for a new technology solution, including estimation of both costs and benefits.

K3 Contemporary techniques for design, developing, testing, correcting, deploying and documenting software systems from specifications, using agreed standards and tools.

K4 How teams work effectively to produce technology solutions.

K5 The role of data management systems in managing organisational data and information.

K6 Common vulnerabilities in computer networks including unsecure coding and unprotected networks.

K7 The various roles, functions and activities related to technology solutions within an organisation.

K8 How strategic decisions are made concerning acquiring technology solutions resources and capabilities including the ability to evaluate the different sourcing options.

K9 How to deliver a technology solutions project accurately consistent with business needs.

K10 The issues of quality, cost and time for projects, including contractual obligations and resource constraints.

S1 Information Systems: is able to critically analyse a business domain in order to identify the role of information systems, highlight issues and identify opportunities for improvement through evaluating information systems in relation to their intended purpose and effectiveness.

You must also consider the knowledge and skills for your specific pathway:

Software Engineering	Data Analysis
Skills Create effective and secure software solutions using contemporary software development languages to deliver the full range of functional and non-functional requirements using relevant development methodologies. Undertake analysis and design to create artefacts, such as use cases to produce robust software designs. Produce high quality code with sound syntax in at least one language following best practices and standards. Perform code reviews, debugging and refactoring to improve code quality and efficiency. Test code to ensure that the functional and non-functional requirements have been met. Deliver software solutions using industry standard build processes, and tools for configuration management, version control and software build, release and deployment into enterprise environments.	**Skills** Import, cleanse, transform, and validate data with the purpose of understanding or making conclusions from the data for business decision making purposes. Present data visualisation using charts, graphs, tables, and more sophisticated visualisation tools. Perform routine statistical analyses and ad-hoc queries. Use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data. Report on conclusions gained from analysing data using a range of statistical software tools. Summarise and present results to a range of stakeholders making recommendations.
Technical Knowledge How to operate at all stages of the software development lifecycle. How teams work effectively to develop software solutions embracing agile and other development approaches. How to apply software analysis and design approaches. How to interpret and implement a design, compliant with functional, non-functional and security requirements. How to perform functional and unit testing. How to use and apply the range of software tools used in Software engineering.	**Technical Knowledge** The quality issues that can arise with data and how to avoid and/or resolve these. The processes involved in carrying out data analysis projects. How to use and apply industry standard tools and methods for data analysis. The range of data protection and legal issues. The fundamentals of data structures, database system design, implementation and maintenance. The organisation's data architecture.

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Assessment Criteria

	Fail		Pass				
Criteria	**0-29 (F)**	**30-39 (E)**	**40-49 (D)**	**50-59 (C)**	**60-69 (B)**	**70-79 (A)**	**80-100 (A+)**
	Not successful	**Below standard**	**Pass**	**Satisfactory**	**Good**	**Excellent**	**Outstanding**
Minimum pass requirements	All assessment criteria must be passed.						
Introduction, Scope and Context (20%) Assesses: clarity of problem statement; rationale and significance; alignment to programme; scope boundaries and assumptions; contextualisation within prior work; objectives and success criteria.	Problem unclear or absent; scope undefined or inappropriate; little/no awareness of workplace or industry context; aims/objectives absent or misaligned; weak or no success criteria.	The problem statement is not clearly defined; the scope is either unsuitable or poorly constrained; there is limited awareness of the project context; and the aims/objectives are not presented effectively.	Basic problem stated but vague; scope broad/narrow with gaps; descriptive background with minimal critique; aims present but unclear; partial/implicit criteria.	Problem and scope reasonably defined with assumptions; relevant background with limited criticality; aims/objectives clear; measurable success criteria sketched.	Precise, well-motivated problem; scope and constraints well justified; concise critical context identifying gaps; objectives trace to aims; success criteria specific and testable.	Strong conceptual framing; scope enables meaningful contribution; expert synthesis of industry context with gaps mapped to objectives; success criteria are comprehensive and feasible.	Scope and context demonstrate significant originality and new perspectives; gap analysis is rigorous and actionable; objectives and success criteria are exemplary; clear relevance and potential impact provide field-leading insights.
Methodology and Project Plan (20%) Assesses: methodological appropriateness/rigour; experimental/design protocol; data management; risk and ethics; planning, milestones, and adaptability.	Methods are completely inappropriate or absent; plan missing; no consideration of risks, ethics, or data quality; replication impossible.	Methods are inappropriate or poorly documented; plan missing; no consideration of risks, ethics, or data quality; replication; no experimental design or protocol.	Methods loosely connected to aims; plan basic with major omissions; limited reproducibility; superficial risk/ethics handling.	Sound baseline methods; plan with milestones and resources; partial reproducibility; risks identified with basic mitigation; ethics/data handling addressed at a basic level.	Rigorous, justified methods aligned to objectives; clear protocols, tooling, and data governance; realistic schedule with evidence of monitoring and adjustments; ethics and risks handled proactively.	Methodological sophistication; trade-offs justified; high reproducibility (well-documented processes, configs, seeds, versions); effective contingency actions evidenced; potential to be reused by others.	Exemplar research engineering; innovative or hybrid methods; comprehensive preregistration/ablation/controls where applicable; impeccable project control and governance; suitable as an exemplary project.

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Assessment Criteria

	Fail		Pass				
Criteria	**0-29 (F)**	**30-39 (E)**	**40-49 (D)**	**50-59 (C)**	**60-69 (B)**	**70-79 (A)**	**80-100 (A+)**
Preliminary Research and Design Documentation (20%) Assesses: Evidence of contextual research (literature, business practices, case studies, tools, documentation, and datasets). Quality of; interpretation, analysis, critical evaluation; relation to theory/prior work; limitations and validity.	Review of data/documentation/literature missing; analysis incorrect/unsupported; claims not evidenced; no critique or awareness of bias/limitations. Design documentation missing.	Data / documentation / literature review inadequate, failing to demonstrate an understanding of academic/industrial research. Limited analysis or evaluation. Design documentation is insufficient and unclear	A minimal review of relevant literature, documentation or datasets. Some basic descriptive analysis; features unsupported claims/ poor referencing. Some useful design documentation attempted but lacking clarity or depth.	Appropriate datasets / documentation/literature; correct analysis with occasional gaps; reasonable interpretation; limitations noted; some triangulation of prior work. Design documentation is of satisfactory standard, with some detail.	Thorough, reproducible analysis; clear linkage between evidence and claims; comparative evaluation vs baselines/benchmarks; threats to validity discussed with mitigation. Design documentation is of a high standard, with some opportunities for improvement	Deep critical insight; robust statistical or empirical reasoning; strong comparative studies or constructions of taxonomies; clearly showing the strengths and weaknesses of existing research. Design documentation is excellent, with limited opportunities for improvement.	Outstanding evidential rigour; novel insights or state-of-the-art comparisons; limitations candidly argued; the analysis alone is of publishable quality as a scientific review or review of current practice. Outstanding quality of design documentation.
Project Implementation and Outcomes (20%) Assesses: quality of artefacts (including, but not limited to: code, models, system or network architectures, business processes, user interfaces, analysis notebooks); engineering practices; performance against criteria; creativity/innovation; documentation and delivery.	Major functionality missing; poor build quality; does not demonstrate use of knowledge and skills required by the standard; little/no documentation.	Major functionality missing; poor build quality; does not meet core requirements; little/no documentation; quality of artefacts limited; engineering practices are not demonstrated.	Partially working prototype; fragile or inefficient; inconsistent adherence to standards; minimal documentation or evidence of practice.	Working solution meeting most core requirements; reasonable robustness/performance; version control and basic testing used where appropriate; usable documentation.	High-quality implementation with good reliability, efficiency and user experience; version control, tests, continuous integration, and/or reproducible environments, appropriate to the discipline; meets criteria with evidence; clear deployment plan/ integration notes.	Polished, scalable, or extensible solution; thoughtful architecture; creative features; exceeds several requirements; professional documentation with evident impact potential.	Exceptional craft and innovation; production-grade qualities or research-grade reproducibility; surpasses requirements convincingly; the artefact has clear value and should be scaled.

Assessment Criteria

	Fail		Pass				
Criteria	**0-29 (F)**	**30-39 (E)**	**40-49 (D)**	**50-59 (C)**	**60-69 (B)**	**70-79 (A)**	**80-100 (A+)**
Evaluation and Conclusions (20%) Assesses: synthesis and evaluation of findings; system or solution testing; alignment back to aims; quality of recommendations; reflection on process and learning; ethical, social and governance (ESG) and/or diversity, equity and inclusion (DEI) implications; future work.	Conclusions absent or not linked to results; recommendations naive; no reflection or awareness. No testing or evaluation.	Conclusions absent or not linked to results; recommendations naive; limited reflection or awareness; evaluation severely limited.	Basic summary. weak linkage to aims; high-level recommendations; superficial reflection; implications mentioned but not integrated. Testing or evaluation at a basic level.	Clear conclusions tied to evidence; feasible next steps; reflection identifies what worked/didn't; basic consideration of implications. Thorough evaluation or testing.	Strong synthesis connecting aims, methods, results; prioritised, actionable recommendations with resource/impact notes; thoughtful reflection on decisions and biases, thoughtful engagement with implications. Good evaluation or testing.	Insightful, strategically grounded recommendations; meta-analysis of process with lessons for practice/research; clear pathway for adoption or publication. Highly effective evaluation or testing.	Exemplary synthesis and foresight; recommendations show leadership potential; reflective practice evidences transformation and generalizable guidance; Exemplary evaluation and testing.