MSc Data Analytics Dissertation 2021/22
Final Dissertation Guidelines

This document outlines the requirements for the final dissertation (80% of the overall mark). All submissions must be in accordance with the DKIT Academic Integrity Policy.

1 Checkpoints

- **1st September 2022** - Submit final draft of your thesis to your supervisor for feedback.
- **11th September 2022** - Submit your final thesis (in PDF only) and supporting documents (in a zip file) on Moodle following the naming convention YourSurname_final_report.pdf.

2 Deliverables

There are **four required deliverables** without which the dissertation **will not be graded**. These constitute a portfolio of evidence of work and consist of:

1. Code repository link – demonstrating clear evidence of incremental (week-by-week) development of your code.
2. Journal – Demonstrating week-by-week progress and planning.
3. Demonstration Screencast - narrated screencast of functionality.
4. Final Presentation / Demonstration (Q&A)

All four of these deliverables must be satisfactorily achieved before a grade can be assigned to your dissertation. Submissions that do not include all of deliverables will be awarded a mark of 0.

For the final project assessment, the final dissertation and supporting artifacts are worth 85 marks. Here Supporting Artifacts include a code depository link, demonstration screencast link, source code, designs, output from test runs, test reports and other files. Your source code should be properly commented and structured. You should include a short README.txt file with instructions on how to run the software and explain what is included.

The remaining 15 marks will be for a presentation and interview.

2.1 Code repository link
You should be able to show evidence of incremental development of your code using a standard version control system with clearly worded messages. You should submit a link to a GitLab, GitHub, BitBucket or another repository.

2.2 Journal
Include a journal or a link to a Mahara page documenting weekly progress and plans for the upcoming week.

2.3 Demonstration screencast link

You are required to produce a short (max 15 minutes) narrated screencast of your project's functionality. You can include the code repository link and demonstration screencast link in the abstract of your thesis.

2.4 Final Dissertation

85 Marks

Your final report must be 15,000-20,000 words in length. Your interim report should normally form the starting point for your final report. Ensure that you take any feedback received at the interim stage into account as you complete your final report. You will be graded based on the following areas.

1. Abstract/Background/Introduction 5 Marks
• Abstract
• Brief introduction of problem
• Clear and Concise Research Questions
• Problem definition
• Project relevance in the field of Data Analytics
• Research methodologies used
• Structure of the report

2. Literature Review 10 Marks
• Focused literature review relevant to the research questions.
• Limitations of available solutions
• Contents from peer-to-peer academic sources are highly recommended

3. Data and Methods 15 Marks
• Data Collection and Methods of Data Collection used.
• Description of Data
• Procedure of Ethical Approval undertaken (DKIT and/or external approval) – All documentation should be included in Appendix
• Data Cleaning
• Pre-processing (Data split, Normalization, encoding)
• Describe core technology, platform, language and architecture used.

4. Results and Discussion 40 Marks
• Data Visualisation
• Preliminary Analysis
• Describe initial prototypes
• Final Design and implementation of modelling
• Parameter Tuning, Evaluation and Testing (if relevant)

5. Conclusion and Future Work 10 Marks
You should discuss whether the identified research questions have been addressed and set out future work that could be performed given more time and/or resources. This may be technical or business focused.

6. Document Structure and Writing 5 Marks

All final reports will be scanned by TurnItIn for similarity scores. You are reminded that where concerns regarding academic integrity arise, the institute's academic integrity processes will be applied in full. Reports should be presented as a professional document. Preferably use the Thesis template guidelines provided. Spelling and grammar should be checked prior to submission. Submit your report in PDF only.

References must be cited and collated in the bibliography using the Harvard system. You are strongly advised to review the DkIT library guide to Harvard referencing.

2.5 Presentation/Demonstration and Q&A

15 Marks

Your final project will be assessed by an academic panel comprising of your supervisor and at least one other academic assessor(s). Each student is required to attend an interview with both assessors. Failure to defend the project at the interview will result in failure of the dissertation module. Students who do not attend the interview will not receive a final grade. Interviews will take place in September 2022 and will be scheduled by the project coordinator.

Your interview will consist of:

1. Presentation (10 minutes): You will give a short presentation of your project.
2. Discussion (20 minutes): The assessors will discuss aspects of your project with you in more depth.