

ASSESSMENT AND INTERNAL VERIFICATION FRONT SHEET (Individual Criteria)

(Note: This version is to be used for an assignment brief issued to students via Classter)

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|---------------------------------|--|------------------------------------|---------------|-------------------------|---|----------|
| Course Title | B.Sc. (Hons.) Software Development, B.Sc. (Hons.) Computer Systems & Networking, B.Sc. (Hons.) Multimedia Software Development | | | Lecturer Name & Surname | Frankie Inguanez Daren Scerri Neville Magri | |
| Unit Number & Title | | ITRSH-506-2101 – Research Design 1 | | | | |
| Assignment Number, Title / Type | | 01, Research Project / Home | | | | |
| Date Set | | 07/02/2023 | Deadline Date | 23/05/2023 | | |
| Student Name | James Bianco | | ID Number | 468501L | Class / Group | MSD-6.2A |

| Assessment Criteria | Maximum Mark |
|---|--------------|
| KU1.1 Present gathered research in relation to a theme that motivates research in an area/topic. | 5 |
| SE1.2 Formulate a research hypothesis, supported with research questions from which research methods will be derived. | 10 |
| AA1.3 Illustrate a research pipeline that will be followed to address own research hypothesis. | 7 |
| KU1.4 Clarify which research methods will be used to address the identified research questions and how these will be evaluated. | 5 |
| AA1.5 Apply every stage of the research pipeline to own research endeavor. | 7 |
| KU2.1 Outline the current state of the art of own research topic (h/w, data, alg). | 5 |
| KU2.2 Describe different existing sources of data with key features and uses in different research. | 5 |
| AA2.3 Contrast own research findings with that of current state of the art. | 7 |
| KU3.1 Defend the proposed pipeline by citing own results and that of the current state of the art. | 5 |
| SE3.2 Evaluate the outcome of each identified research question. | 10 |
| AA3.3 Investigate the extent to which results confirm original hypothesis. | 7 |
| AA3.4 Investigate areas in which results suggest the original hypothesis needs modification. | 7 |
| KU4.1 Record the work in a report following a proper referencing style. | 5 |
| KU4.2 Arrange own work in a scientifically structured manner with proper internal referencing, sectioning and labelling. | 5 |
| SE4.3 Criticize own research to propose new hypothesis and research questions for future work. | 10 |
| Total Mark | 100 |

Notes to Students:

- This assignment brief has been approved and released by the Internal Verifier through Classter.
- Assessment marks and feedback by the lecturer will be available online via Classter (<http://mcast.classter.com>) following release by the Internal Verifier
- Students submitting their assignment on Moodle/Turnitin will be requested to confirm online the following statements:

Student's declaration prior to handing-in of assignment

- ❖ I certify that the work submitted for this assignment is my own and that I have read and understood the respective Plagiarism Policy

Student's declaration on assessment special arrangements

- ❖ I certify that adequate support was given to me during the assignment through the Institute and/or the Inclusive Education Unit.
- ❖ I declare that I refused the special support offered by the Institute.

Overview

In this unit you are going to undertake a small research project that will introduce you to a scientific research methodology. You have the freedom of choosing a topic of your liking which your respective lecturer can guide you on how to apply it properly to this assignment. Several research ideas are being presented to you either during class or via talks. These will help you identify potential research ideas that can then be discussed with your respective lecturer.

This unit is followed by a second unit called Research Methods II whereby focus is given more to the evaluation methods of research undertakings.

Deliverables

By the end of this unit, you are expected to deliver the following:

1. 1 3-5 page 2-column **academic paper** that documents your research undertaking. This paper should include:
 - a. Title with author information
 - b. Abstract
 - c. Introduction
 - d. Literature Review
 - e. Research Methodology
 - f. Discussion of Results
 - g. Conclusion
2. A **GIT repository** with regular commits and all content related to the project. Suggested structure is as follows:
 - a. doc: the assignment brief, pipeline image, the initial proposal as guided by your lecturer, final report and VIVA presentation.
 - b. lit: the academic papers
 - c. data: the dataset
 - d. src: the source code
 - e. output: any output files such as illustrations.
3. A **VIVA presentation** supported with a 3-to-5-minute video of your working prototype which you will demonstrate to your lecturer during an allocated 1-to-1 meeting.

Grading Criteria

| Criteria | Task | Marks |
|----------|---|-------|
| KU4.2 | A 3 to 5 page, 2-column paper using the recommended academic template outlining the research undertaking as documented in the assignment | 5 |
| KU4.1 | Use of a proper referencing framework as per recommended template | 5 |
| KU2.1 | A literature review to categorize and describe concepts relevant to the study or topic and outline a relationship between them, including relevant theory and empirical research. | 5 |
| KU2.2 | A literature review providing an overview of the different existing sources of data with key features and uses in different research areas. | 5 |
| SE1.2 | A research methodology identifying the research hypothesis and research question(s). | 10 |
| AA1.3 | A research methodology illustrating and documenting research pipeline/flowchart illustrating the various phases/stages, actors, components, and flow of the research undertaking. | 7 |
| KU1.4 | A research methodology documenting the research methods adopted to address the research question(s) and how they fit into the illustrated pipeline. | 5 |
| AA1.5 | A discussion of results documenting the findings and/or results at every stage of the pipeline and from every research method. | 7 |
| AA2.3 | A discussion of results with a comparison of findings with 3 rd party research. | 7 |
| KU3.1 | A discussion of results that criticises the proposed research pipeline. | 5 |
| SE3.2 | A discussion of results that addresses/answers the presented research questions. | 10 |
| AA3.3 | A discussion of results that addresses the hypothesis. | 7 |
| AA3.4 | A discussion of results that proposes new or amended hypothesis. | 7 |
| SE4.3 | A conclusion that gives an overview of the achievements and limitations with several recommendations for future work. | 10 |
| KU1.1 | A VIVA presentation giving an overview of the research endeavour. | 5 |