National College of Ireland

Title

MSc Research Project
Programme Name

Forename Surname
Student ID: XXX

School of Computing
National College of Ireland

Supervisor: XXX

National College of Ireland
Project Submission Sheet
School of Computing

Student Name:	Forename Surname
Student ID:	XXX
Programme:	Programme Name
Year:	2018
Module:	MSc Research Project
Supervisor:	XXX
Submission Due Date:	20/12/2018
Project Title:	Title
Word Count:	XXX
Page Count:	4

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

ALL internet material must be referenced in the bibliography section. Students are required to use the Referencing Standard specified in the report template. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action.

Signature:	
Date:	8th October 2018

PLEASE READ THE FOLLOWING INSTRUCTIONS AND CHECKLIST:

Attach a completed copy of this sheet to each project (including multiple copies).	☐
Attach a Moodle submission receipt of the online project submission, to each project (including multiple copies).	☐
You must ensure that you retain a HARD COPY of the project, both for your own reference and in case a project is lost or mislaid. It is not sufficient to keep a copy on computer.	☐

Assignments that are submitted to the Programme Coordinator office must be placed into the assignment box located outside the office.

Office Use Only	
Signature:	
Date:	
Penalty Applied (if applicable):	

Title

Forename Surname
XXX

Abstract

Abstract goes here. You should provide a high-level (approx. 150 – 250 words) overview of your paper, its motivation, and the core findings. This is the teaser of your work – it'll probably be best to write it last.

1 Introduction

In this section you introduce the topic of the paper, motivate why it needs to be studied (appropriate citations are best for this), presents the research question(s) and research objectives, and/or hypothesis or hypotheses. Briey summarise the contribution to the scientic literature your work entails. Finish this section by outlining the structure of the report.

This is a nice little introduction with some figure in Figure 1

Figure 1: This is a caption

2 Related Work

In this section you need to situate your work in the academic literature; this entails a critical (positive, negative, helpful) review of similar work. If you can't find similar work, you haven't looked hard enough. Ideally, you want to be reading around 50 papers; of which at least 25 should appear in the paper itself. Note that urls are not references, they are footnotes.[1]

You are expected to provide a critical/analytic overview of the significant literature published on your topic. Comment on the strength and weakness/limitation of work in each reviewed paper.

The literature review should end in a paragraph that summarises the findings from the state of the art, why the previous solution are not adequate and justifies the need for your research question.

[1] Like this one: `http://www.ncirl.ie`

The content sections of your report should of course be structured into subsections. Note that here there are 2 subsections subsection 2.1 and subsection 2.2.

2.1 Subsection 1

Lorem ipsum dolor sit amet, ut veri deleniti eloquentiam sea (Feng and Buyya; 2016). Ea commodo aperiam complectitur pri, usu et case dolore. Kune et al. (2016) ad quidam regione percipitur, est ut possit bonorum persecuti. Quis utinam offendit eu usu, eu accumsan disputando per, id cibo reprehendunt sit (Beloglazov and Buyya; 2015; Gomes et al.; 2015). In melius legendos corrumpit pro. Eos dico dignissim voluptatibus et, duo nisl cibo ut. Diceret periculis posidonium cum eu. Gomes et al. (2015) regione nam ex. Vix id viris phaedrum. Pri augue cetero probatus ut.

A nice little way of leaving yourself notes and reminders:

(Write Lit Review in English) **ToDo**

2.2 Subsection 2

In Table 1 an example table is provided.

Table 1: A table caption.

Animal	Description	Price ($)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

3 Methodology

You will of course want to discuss your research as well as evaluation methodology – otherwise how will your examiners know that you have followed an appropriate scientific process and rationalised your choice of evaluation. Note that it may also be useful to base decisions in this section off your discussion of related work in section 2. You should also include cite any previous work used in defining your methodology.

You need to give a completely accurate description of the research procedure you followed, equipment used, the technique(s), applied, set-up of scenarios/case studies run. You must provide an explanation of how the raw data gathered/compiled and analyzed. Describe the statistical techniques used upon the data. Detail all the steps from data collection to final results.

4 Design Specification

The techniques and/or architecture and/or framework that underlie the implementation and the associated requirements are identified and presented in this section. If a new algorithm or model is proposed, a word based description of the algorithm/model functionality should be included.

5 Implementation

You will of course want to discuss the implementation of the proposed solution. Only the final stage of the implementation should be described.

It should describe the outputs produced, e.g. transformed data, code written, models developed, questionnaires administered. The description should also include what tools and languages you used to produce the outputs. This section must not contain code listing or user manual description.

6 Evaluation

The purpose of this section is to provide a comprehensive analysis of the results and main findings of the study as well as the implications of these finding both from academic and practitioner perspective are presented. Only the most relevant results that support your research question and objectives shall be presented. Provide an in-depth and rigorous analysis of the results. Statistical tools should be used to critically evaluate and assess the experimental research outputs and levels of significance.

Use visual aids such as graphs, charts, plots and so on to show the results.

6.1 Experiment / Case Study 1

...

6.2 Experiment / Case Study 2

...

6.3 Experiment / Case Study 3

...

6.4 Experiment / Case Study N

...

6.5 Discussion

A detailed discussion of the findings from the N experiments / case studies. Note that this discussion will have a lot more detail than the discussion in the following section (Conclusion). You should criticize the experiment(s), and be honest about whether your design was good enough. Suggest any modifications and improvements that could be made to the design to improve the results. You should always put your findings into the context of the previous research that you found during your literature review

7 Conclusion and Future Work

Restate your research question, your objectives and the work done. State how successful you have been in answering the research question and achieving the objectives. Restate

the key findings. Discuss the implications of your research, talk about the efficacy of your research, and discuss its limitations.

Describe any proposals for future work or potential for commercialisation. Present MEANINGFUL future work. Sweeping more parameters in your simulation / model / platform is probably not meaningful. More discuss what could a follow up research project do, to better / differently approach / extend etc. your work.

References

Beloglazov, A. and Buyya, R. (2015). Openstack neat: a framework for dynamic and energy-efficient consolidation of virtual machines in openstack clouds, *Concurrency and Computation: Practice and Experience* **27**(5): 1310–1333.

Feng, G. and Buyya, R. (2016). Maximum revenue-oriented resource allocation in cloud, *IJGUC* **7**(1): 12–21.

Gomes, D. G., Calheiros, R. N. and Tolosana-Calasanz, R. (2015). Introduction to the special issue on cloud computing: Recent developments and challenging issues, *Computers & Electrical Engineering* **42**: 31–32.

Kune, R., Konugurthi, P., Agarwal, A., Rao, C. R. and Buyya, R. (2016). The anatomy of big data computing, *Softw., Pract. Exper.* **46**(1): 79–105.