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Project Title

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For

ITXX 499

Senior Project

Academic Year 20xx-20xx-Semester x

Project Supervisor: Enter Supervisor Name

Co-supervisor name

Date of Submission

Abstract

// The word “Abstract” should be on the center of the page in Time New Roman (TNR) 18 points bold font. The text in the abstract should be in TNR 12 points. All text is justified. The Abstract should be on a separate page by itself. Apply the pre-defined style “Chapter”.

// The Abstract is a 50-150 words that gives a precise and concise summary of the work accomplished including any performance measures. The first sentence in the Abstract is the most important and should be chosen carefully, e.g. The abstract should allow the reader who is unfamiliar with the work to gain a swift and accurate impression of what the project is about, how it arose and what has been achieved.

// Read then remove the paragraphs that starts with “//”

// Make sure that you have read all comments in this template before you delete them

// Remove all tables and figures included in this template that are not related to your project before printing out the report.

// Remove all appendices included in this template and add your appendices.

Acknowledgments

// The word “Acknowledgments” should be on the center of the page in Time New Roman (TNR) 18 points bold font. The text in the abstract should be in TNR 12 points. All text is justified. The Abstract should be on a separate page by itself. Apply the pre-defined style “Chapter”.

// This section includes any words of appreciation and gratitude to the people helped with accomplishing the project. Keep the acknowledgement short.

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Chapter 1  
Introduction

// The word “Chapter 1: Introduction” should be on the center of the page in Time New Roman (TNR) 18 points bold font. The text in the chapter should be in TNR 12 points. All text is justified. Apply the pre-defined style “Chapter”.

// This chapter introduces the reader to the subject area in the project. It should introduce the problem and its formulation. The thesis statement will be useful here. Background information may include a brief history and review of the literature already available on the topic so that you are able to ‘place’ your research in the field. Additional information about the importance of this project and how it is significant could be added here. Some brief details of your methods and an outline of the structure of the report.

The following subsections are examples for the subsections that can be added in this chapter

# Problem Statement

// Present the statement of the problem that is going to be investigated throughout the project, the problem can be divided into two to three sub-problems to be able to easily solve the whole problem.

# Project Objectives

// The aim and objectives of the project are outlined to provide a short description of what the researcher intends to achieve, in addition, a statement of the limitations of the scope of the research is also presented.

# Relevance/Significance of the project

// The relevance and the significance of the project should be synthesized in this section.

# Report Outline

// Briefly outline the remainder of this report in a paragraph. For example, Chapter 2 scans the literature related to the studied problem. Chapter 3 describes the research model adopted in the project and the hypotheses to be tested. Etc.

Chapter 2  
Literature Review

// The main reason behind having a review of related literature is to position the study in the context of what has been done before, what is currently happening, and how research in this area is conducted. To start, provide a brief history of previous researches and practices, and then review the current theory and practices. Critical writing is about providing reasons to support an argument. Therefore, discuss the sources, identify their points of view, provide arguments, support arguments with evidence, and finally draw conclusions and present your point of view in a structured, clear, well-reasoned way. The structure of the chapter is open to students. This chapter needs to be carefully structured to produce a good introduction to the project and shows the location of the project within the literature.

Chapter 3  
Project Management

// This chapter highlights the project activities to meet the project requirements. It includes the process model as a set of related activities that leads to the production of the software/system. In addition, this chapter identifies the risks that may threaten the project that is being developed. The chapter usually ends with the project activity plan most commonly created by “Gants Charts” and “Project Tasks” of phases of the project.

The following subsections are examples for the subsections that can be added in this chapter

# Process Model

// This section describes the software process model which is also known as Software Development Life Cycle model. It introduces the selected model for the development process with justifications.

# Risk Management

// This section identifies the potential risks that may be faced during the project and the necessary plans to minimize them.

# Project activities Plan

// This section breaks down the project into different activities according to defined period of time needed to deliver the system.

Chapter 4  
Requirement Collection and Analysis

// The requirement gathering is an essential part of any project management. It is about creating a clear and agreed set of customer requirements that allow to deliver a system according to the customer requirements.

// This chapter discusses the functional and non-functional requirements of the system. It also discusses the data flow diagram and the use case diagram of the system.

// The chapter should start with an introduction followed by eventually the following subsections.

# Requirement Elicitation

// This section describes the methods of collecting the system requirement such as interviews, questionnaires, observations and the quantitative and qualitative data analysis.

# System Requirements

// This section describes the behavior and features of software applications which consists of both functional and non-functional requirements.

# Personas

// This section describes the characteristics of the system/application users.

# System Models

// This section describes different system models, which can be implemented either using the traditional approach or Object-Oriented (OO) approach as shown in Table 1.

Table : The system models.

|  |  |
| --- | --- |
| Traditional Approach | OO Approach |
| * + 1. **Data Flow Diagram**   // This section describes the data flow diagram which explains how data is processed and transferred in a system. | **4.3.1 UML Use Case Diagram**  // This diagram describes the system’s boundaries and functionalities from the user point view. |
| * + 1. **Process Specification**   // This section describes the method used to document, analyze and explain the decision making logic and formulas used to create output data from process input data.  // This section may include also the description of the “Structured English” which details each step in the running process of the program. | **4.3.2 Process Specification**  // This section describes the use case descriptions and scenarios. In addition to,  UML sequence, state and activity diagrams for important processes should be included. |
| * + 1. **Entity Relationship Diagram**   // You illustrate here the information of a system’s entities and relationships between those entities. | **4.3.3 UML Class Diagram**  // This diagram describes the static structure of the system in term of classes. All relationships among classes should be represented. |

Chapter 5  
System Design

// This is a fundamental chapter in the report where the aspects of the system design is discussed and evaluated. This chapter could include database schema, user interface design, procedure design, flow of the system, software algorithms, etc.

// If you choose the OO approach, include a general description of the selected software architectural style. A justification of your selection should be included. A description of the system design in term of software architecture and architectural derivers should be included. In addition to, detailed UML diagrams, such as package, sequence, class, deployment diagrams can be included in this section.

// This chapter should start with an introduction followed by sections and eventually subsections.

Chapter 6  
System Implementation and Testing

// This chapter describes the details of the system implementation into a working prototype. A description of how the different components are selected and integrated should also be included. Also, a justification of the implementation decisions such as used tools, hardware/software tools, algorithms, programming languages, cloud providers etc. should be provided.

// This chapter discusses the testing phases of the implemented system and reports the obtained results. A discussion of the results and comparison with similar systems including usability and user-experience testing should be added. A highlight of the strengths and weaknesses of the proposed system has to be included as part of this chapter.

// This chapter should start with an introduction followed by sections and eventually subsections.

Including usability and user-experience testing

Chapter 7  
Conclusion and Future Work

// The conclusion chapter should describe what have been done during the project as design, implementation and testing. Moreover, it should present a summary of the main results and findings and states the significances of them.

// This chapter can also include discussion about the project limitations, the implications of the project, and ideas for future work.

References

// Insert here the references list.

// Any material used in the report that is taken from other sources MUST be referenced, such as ideas, concepts, phrases, information, processes or protocols, tables and figures, etc. You should follow the Harvard referencing style (click [here](http://libguides.murdoch.edu.au/IEEE) for a guideline).

Appendix A  
Compact Disk material

// Remove this appendix before submission.

// A CD should be attached with the report. The CD should include:

1. The project report (.docx and .pdf formats)
2. The project poster (.ppt format).
3. Arabic Abstract (.docx format) as a separate file (Do not include in the report).
4. Pictures, and demo videos related to the project
5. The codes and sketches used in the project.

The CD should be clearly labeled with the

1. Title of the project
2. Students’ names and students’ IDs
3. Supervisor(s)’ name(s)
4. Academic year and semester of defending the project.

Appendix B  
Format Guideline

This appendix contains the guideless for editing the senior project report.

Page size and margins

Follow Table 1 for the details of page setup

Table : The standards for Page and margin setup.

|  |  |
| --- | --- |
| Setting | Note |
| Page size | A4 |
| Page orientation | Portrait (except for some pages with a wide table or figure) |
| Top margin | 2.5 cm |
| Bottom margin | 2.5 cm |
| Left margin | 3 cm |
| Right margin | 2 cm |

Font Styles

For different items of the report there are different font styles. This document has been set with the main required styles. Use Table 2 to see all the different setup required for the report with their pre-set styles. The pre-set styles (we going to refer to them later as “styles”) are set to make your report formatting easy.

To set a style for certain title, heading, or paragraph just select the item and select the proper style from the style pane. For more information on how to apply styles click [here](https://support.office.com/en-us/article/apply-styles-f8b96097-4d25-4fac-8200-6139c8093109?ui=en-US&rs=en-US&ad=US), then read and watch the available video.

Table : Fonts and Styles.

| Usage | Style Name | Font/size | Type | Alignment | Spacing | Indention | Other |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Main title | Title | TNR/22 | Bold | Center | Single | - |  |
| Subtitle | Subtitle | TNR/18 | Bold | Center | Single | - |  |
| Main sections | Main Sections | TNR/18 | Bold | Center | Single  After: 12pt | - | In a new page |
| Table of contents title | General Titles | TNR/18 | Bold | Center | Single  After: 12pt | - | In a new page |
| Chapter Titles | Chapter | TNR/18 | Bold | Center | Single  After: 12pt | - | In a new page |
| 1st level heading | Heading 1 | TNR/14 | Bold | Left | Single  Before: 6 pt After: 3 pt | - | numbered |
| 2nd level heading | Heading 2 | TNR/13 | Bold | Left | Single  Before: 3 pt After: 3 pt | Before: 5 pt | Numbered |
| 3rd level heading | Heading 3 | TNR/12 | Bold | Left | Single  Before: 3 pt After: 3 pt | Before: 10 pt | Numbered |
| 4th level heading | Heading 4 | TNR/11 | Bold | Left | Single  Before: 3 pt After: 3 pt | Before: 13 pt |  |
| Appendix Header 1 | App heading 1 | TNR/14 | Bold | Left | Single  Before: 6 pt After: 3 pt | - | Not numbered |
| Appendix Header 2 | App heading 2 | TNR/13 | Bold | Left | Single  Before: 3 pt After: 3 pt | Before: 5 pt | Not numbered |
| Appendix Header 3 | App heading 3 | TNR/12 | Bold | Left | Single  Before: 3 pt After: 3 pt | Before: 10 pt | Not numbered |
| Regular text | Body text | TNR/11 | Regular | Left | Spacing:1.5  Before: 3 pt After: 3 pt |  |  |
| Captions | Caption | TNR/9 | Italic | Center | Single  After: 10 pt |  |  |
| Coding | Code | Courier/10 | Regular | Left | Spacing:1.15  Before: 9 pt After: 9 pt | Before: 20 pt  After: 20 pt | No spacing between similar paragraph |

Font is Times New Roman for all fonts in Table 2 except for coding

Coding

The “code” style is set to be applied to any code inserted in the Report. Check the following code.

print "Hello World!"

print "Hello Again"

print "I like typing this."

print "This is fun."

print 'Yay! Printing.'

print "I'd much rather you 'not'."

print 'I "said" do not touch this.'

This style uses Courier as the font; it is 10 pt in size; uses spacing of 1.15; moreover, it adds 3 pt spacing before and 3 pt spacing after the code (only between the code and different style of text).

Captions

Use MS Word captions to add captions to tables, figures, equations, and other objects. The table captions should be above the table, and for figures it should be below the figure.

Insert Captions

Click [here](https://support.office.com/en-us/article/add-format-or-delete-captions-in-word-82fa82a4-f0f3-438f-a422-34bb5cef9c81?ui=en-US&rs=en-US&ad=US) for guide on how add captions Word.

Cross-referencing

Click [here](https://support.office.com/en-us/article/create-a-cross-reference-300b208c-e45a-487a-880b-a02767d9774b) for a guide on how to create cross-reference.

Updating the tables

Before printing the report, make sure the all the tables on the front matter (table of contents, of tables, and of figures) are updated. The contents of those tables are updated automatically. Click [here](https://support.office.com/en-us/article/update-a-table-of-contents-6c727329-d8fd-44fe-83b7-fa7fe3d8ac7a) for more information about how to update those tables.

Titles of main sections/chapters

All main titles are similar in the font settings, which are 18-pt bold centered TNR, and they differ in other setup settings. Therefore, there are different styles for different titles. The following subsections describes those formats.

Front matter and References

These are all titles of the main sections coming at the front matter of this report and before the Introduction chapter and the reference section after the conclusion chapter. These sections include the acknowledgment, table of contents, and table of figures. The titles of all those sections should be of a single line. All titles of those titles, except “table of contents”, uses “Main Sections” as their style. However, the title “table of contents” uses “General Titles” as its style.

Chapter titles

These are at the main headings of the main body sections; they start with the Introduction chapter and ends with the Conclusion chapter. The used style for chapter titles is called “Chapter”.

The chapter heading starts automatically with the word “Chapter” followed by a space, Arabic number. These parts will be added automatically once the “Chapter” style has been chosen. Then a soft return should be added and then the actual chapter title. The soft return divides the chapter title into two lines, as shown in **Error! Reference source not found.**; however, both lines will still be considered as one item. To enter a soft return press both the shift and return keys at the same time.

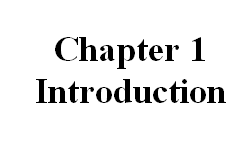


Figure 1: Main body chapter title

Appendix titles

They are the main heading of the appendices; they come after the Conclusion chapter. The appendix heading starts with the word “Appendix” followed by a space, an alphabetic letter, soft return, and then the actual appendix title.

Pagination

The page numbering starts from the cover page until the last page of that report. However, the first part of the report has different pagination system than the second part. The page numbers are placed at the bottom of the pages on the right side.

The cover page and front matter (first part) use roman numbers. However, the cover page number (i) should be hidden.

The remaining of the report (chapters and appendices) use Arabic numbers. The numbering starts from the first chapter (Introduction) with page number 1. This numbering will carry out until the end of the report.