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CMT 400: -RESEARCH PROJECT
PROGRESS REPORT GUIDLEINES

Preliminary pages

- ❖ Blank page
- ❖ Cover page [See attached Format, Replace Placeholder text, don't edit the Font]
- ❖ Declaration
- ❖ Acknowledgement
- ❖ Dedication
- ❖ Abstract
- ❖ Table of contents
- ❖ Terms and Abbreviations
- ❖ List of figures
- ❖ List of Tables

Chapter 1: -Introduction

- ❖ Background
- ❖ Problem statement
- ❖ Objectives
- ❖ Justification
- ❖ Scope
- ❖ Research organization

Chapter 2: Review of related work

- ❖ Chapter Introduction & Research methodology of literature review
- ❖ History of the research topic
- ❖ Review of related prototypes, systems [from global to local, at least 5 cases]
- ❖ Emerging trends and patterns in the research area
- ❖ Research gap to be filled by your research
- ❖ Chapter Summary

Chapter 3: Research Methodology

- ❖ Chapter introduction
- ❖ Methodology of requirement specification, data collection e.g. Interviews, questionnaires.

❖ Methodology for system Analysis (current system); Context Diagram, Level 1 DFD, Level 2 DFD, Normalization (Up to 3rd NF)

❖ Methodology for System Design (proposed system); Context diagram, level 1 DFD, Level 2 DFD, flow charts, User Interface design (UI/UX tools, Prototype screenshots), Database design (ERD)

❖ Methodology for System implementation; Tools selection (Programming language (s), Database etc.)/back end, front end.

❖ Methodology for system testing; testing plan, testing techniques

❖ Methodology for System Deployment; Phased, Pilot, Parallel, Direct; Data migration plan and Users training.

❖ Chapter Summary

Chapter 4: System Analysis

❖ Chapter introduction

❖ Description of the current systems, its strengths and weakness

❖ Feasibility study & its conclusion

❖ Requirement s analysis [identification of functional and non-functional requirements]

❖ System analysis: breakdown of system into its components using relevant tools [SSAD (Context diagram, DFD)/ OOSAD (Use Case diagram)]

❖ System users/actors, inputs and outputs are clearly identified

❖ Entities are clearly identified and redundancy controlled [Normalization to 3NF)]

❖ Chapter summary

Chapter 5-System Design

❖ Introduction

❖ Description of the proposed systems, its strengths and weakness

❖ Conceptual architecture of the proposed system

❖ Process design using appropriate tools[SSAD(Flowcharts), OOSAD (Activity diagram, sequence diagrams etc.)]

❖ Database Design: ERD and Data dictionary

❖ I/O of the proposed system (mock up screens)

❖ Test data [adequate to represent actual input scenario in terms of variance]

❖ Chapter summary

Chapter 6: - Implementation (System prototype)

❖ Chapter introduction

❖ UI implemented [input forms, reports etc] with validation in at least the login and one input form

❖ ERD implementation with all relevant tables created

❖ Process design implemented with at least a single case of writing into a file /database, reading from a file/database, updating a file/database, deleting a file/database.

❖ Module testing demonstrable for at least one module
❖ Chapter summary

References/Bibliography
Appendix: e.g. Sample questionnaires, sample interviews, budget schedule, time schedule, sample code

Further Guidelines on the Progress Report
❖ All paragraphs should be justified, 1.5 spaced and done in times new roman
❖ All figures should be labelled and cited
❖ All tables should be well labelled
❖ Each idea should be on specific paragraphs
❖ Problem statement should be written in continuous Prowse
❖ Objectives should be numbered
❖ Research justification should be anchored on existing Research and not assumptions
❖ Research scope should specify target organization and Features to be implemented
❖ Use the APA referencing style
❖ Print one copy (Spiral Bound)