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1. Introduction

The Graduation Project (GP) provides the opportunity to the students to showcase the talents through their learned skills and practices. The project is mandatory for all the students enrolled in the programmes. As such, students should regard their graduate projects as an ideal opportunity to implement the concept learned in most of the courses and gain hand on experience.

2. Course Learning Outcomes

- Solid understanding of the theory and concepts underlying computer and information sciences.
- Find and integrate the needed resources for a given/chosen problem.
- Understanding the problem more deepy by performing extensive literature analysis.
- Analyse, design, and implement a solution by considering the software engineering life cycles and best practices of software project management.
- Demonstrate the outcomes of the graduation project by means of oral and written skills.

3. Student Outcomes

iv

- a. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline[CS&IT].
- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution[CS&IT].
- c. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs[CS&IT].
- d. An ability to function effectively on teams to accomplish a common goal [CS&IT].
- e. An understanding of professional, ethical, legal, security and social issues and responsibilities[CS&IT].
- f. An ability to communicate effectively with a range of audiences[CS&IT].
- g. An ability to analyze the local and global impact of computing on individuals, organizations, and society[CS&IT].
- h. Recognition of the need for and an ability to engage in continuing professional development[CS&IT].

- i. An ability to use current techniques, skills, and tools necessary for computing practice[CS&IT].
- j. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices [CS].
 - An ability to use and apply current technical concepts and practices in the core information technologies [IT].
- k. An ability to apply design and development principles in the construction of software systems of varying complexity[CS].
 - An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems[IT].
- l. An ability to effectively integrate IT-based solutions into the user environment [IT].
- m. An understanding of best practices and standards and their application [IT].
- n. An ability to assist in the creation of an effective project plan [IT]..

CLO# SO d f k b e h a C g m n 1 X X 2 X X X X X X X 3 4 X X X X 5 X X X

Relationship between CLOs and SOs

4. Overview of GP Process

The GP is carried over in the last two semesters (9th and 10th semesters), called Semester 1 and Semester 2 (Graduation Project 1 and Graduation Project 2). Both semesters will be graded independently according to the work carried out in each semester. Work assessed will include deliverables submitted and final presentation. The general purpose of Graduation Project 1 is for the students to give a presentation showing their project proposal including management plan, feasibility study, requirement document. At the end of their Graduation Project 2, the students are evaluated on their presentation of the final project deliverables and a project report.

5. Assigning Students to Supervisors and Projects

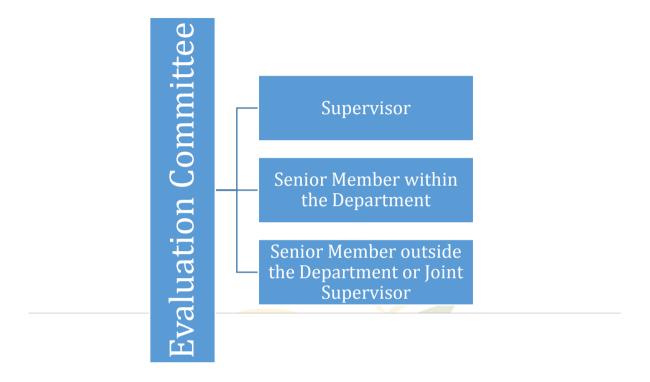
- Graduation projects supervisors are asked to submit project preliminary ideas one semester in advance to the departmental coordinator (GP Coordinator) for the students to start groups formation.
- Students can choose from ideas published by the supervisors or offer their own ideas to the supervisors for adoption.
- For a faculty member to supervise a graduation project, he/she must be a full time faculty member. He/she could have assistants from external supervisor in case of an industrial project or project from other colleges inside Majmmah University. In case of assistance from joint supervisor, the following points are applicable
 - a. Need of joint supervisors are initiated by the Supervisor and submitted to the GP coordinator.
 - b. The GP coordinator analyses the case and recommend to HoD for approval.
 - c. The joint supervisor is expected to work closely with the supervisor
 - d. The supervisor and joint supervisor will divide the responsibilities in order to avoid conflicts.
 - e. The joint supervisor is the part of evaluation committee as a member outside the college.
- An orientation session will be conducted to final year students to raise their awareness of the graduation project handbook and the necessary information related to projects registration and assessment.
- Students must register during the first week of Semester 1 for their graduation project. Once registered, they must form teamwork of at most 4 students, depending on the nature of the project's deliverables and total number of students.
 - a. The supervisor is responsible to divide the project work among the team members and follow up regularly.
 - b. In case of conflict among the team members in carrying out the assigned task, the supervisor is responsible to solve it.
- The GP Coordinator, is responsible to prepare a list of the proposed projects, list of students in each project, and supervisors.

6. Project Supervision

- a) Students are expected to submit a formal project proposal under the supervision of supervisor in the 3rd week (see Appendix H)
- b) In the 4th week of the Semester 1, students should submit final project proposal to the GP Coordinator.
- c) It is mandatory for every project group to submit project deliverables to their respective supervisors (see Section 9 for detail on project deliverables).
- d) It is mandatory for every project group to complete project proposal, project management plan, project requirement specification, and prepare an oral presentation at the end of the semester 1.
- e) To keep track on weekly student-supervisor meetings and to monitor student progress, the students are required to fill a Regular Supervision Record Form (see Appendix I) that contains the meeting minutes and submit it to the respective supervisor after the meeting to ensure that it is accurate. Finally, copies of the meeting minutes will be stored in the GP course file.
- f) To keep track of all the projects in the department GP coordinator will ask supervisor to submit a monthly report. (Appendix J)
- g) It is mandatory for every project group to submit project report containing project details, design, modeling and execution plan by the end of 15th week of Semester 1 to their respective supervisor.
- h) GP Coordinator releases project evaluation schedule for Semester 1 to be conducted in the 16th week of the semester 1. Every group presents a detailed oral presentation using PowerPoint slides of the work done in Semester 1 to the evaluation committee and the final grade of Semester 1 will be decided by the evaluation committee in consultation with the supervisor. The duration of each oral presentation is total 20 minutes followed by a 10 minutes' question and answer session.
- i) By considering the comments and suggestions given by evaluation committee after the oral presentation the project work should be adapted, in consultation with the supervisor, at the start of Semester 2.
- j) It is mandatory for every project group to submit Final GP Report containing project details, design, modeling, execution plan, implementation and testing by the end of 15th week of Semester 2.

7. Project Evaluation

• The GP coordinator in consultation with the HoD is responsible to form an evaluation committee comprises of a maximum three senior members within/other department of the college which includes the supervisor as a member.



- The GP Coordinator is responsible for scheduling final project presentation, which is a public event where students of the last semester(Level 8) before GP should also be encouraged to attend the event.
- The table IV contains a minimal set of GP deliverables along with the purpose and the deadline of submission. Each submitted deliverable must be duly signed by the supervisor. The submission without supervisor's approval will not be considered. The evaluation committee will carry out the evaluation according to the mark allocation policy.
- Plagiarism should be punished by scaling down students' marks by dissimilarity scores obtained from the online integrity checker as decided the competent authorities and will be communicated to the students/supervisor during the beginning of the semester 1.

Evaluation Criteria

Following table explains a guideline for the criteria to be used for GP evaluation/assessment along with description and evaluation authority (s).

Table I: GP Evaluation Criteria

Criteria	Description	Evaluation Authority(s)	Due Date
Semester 1 - Project Proposal (Initial Evaluation)	The students are expected to provide the following information convincingly during this phase:	Supervisor	Week 6
Semester I- Project Proposal - Midterm Evaluation	The students are expected to provide the following information during the second phase:	Supervisor	Week 11
Semester 1 Project Presentation (Final Evaluation)	Students are expected to present and defend a comprehensive project proposal during the final proposal evaluation containing the following information: • Background of the project • Motivation for the project • Problem statement • Scope of the project • Comprehensive analysis of related work • Project requirements • Identification of alternative solutions/approaches and justification of selecting a solution/approach • Discussion of tools and techniques used during project proposal • Appropriate analysis	Evaluation Committee	Week 15

Semester 2 Project Implementation - Midterm Evaluation	 Description of tools and techniques to be used during project implementation Identified tasks and a realistic work plan for project implementation Students are expected to provide the following information during the midterm project evaluation: Background of the project Problem statement Appropriate analysis Details of partial implementation conforming to the design/proposal Tools and techniques being used during project implementation Details of design conforming to the problem statement Preliminary outcomes/results Remarks on preliminary results and intermediate conclusions Identified tasks and a realistic work plan for next phase 	Supervisor	Week 9
Semester 2 Demonstration & Presentation Final Evaluation	The students are expected to provide the following information by the end of final phase: Background of the project Motivation for the project Problem statement Scope of the project Comprehensive analysis of related work Project requirements Identification of alternative solutions/approaches and justification of selecting a solution/approach Appropriate analysis Details of project implementation conforming to the project proposal Mastery of tools and techniques being used in project implementation Overall project outcome/achievements Analysis of overall result through comparison/validation/verification Comprehensive remarks on overall project outcome and achievements Conclusions and future work	Evaluation Committee	Week 15

	To assess the structure of the project report. Student(s) are required to show		Week 16
Semester 1 and Semester 2 Project Report	planning and progress in an organized way with emphasis on the interpretation of the information gathered during the project. Project reports have to be submitted in both Semester 1 and Semester 2.	Evaluation Committee	

Criteria for Mark Allocation Policy

Out of 100% marks, the supervisor will award the project for 65% marks and the evaluation committee will award for 35% of marks. The criterion is shown in the following table:

Table II: Criteria for Evaluation

Criteria - Project 1								
Initial Evaluation	-							
Midterm Evaluation								
Final Evaluation								
Report								
Criteria - Project 2								
Criteria - Pro	ject	t 2						
Criteria - Pro Midterm Evaluation	jec	t 2						

Graduation Project-I

Assessment Form (Final Evaluation)

Project Title:					
Course : PROJECT 1		Stu	ıden	t-Scor	re
Student Name:				25	
Student ID:	(S)	(E1)	. (E2)	5 S+0.2	
Semester:	Supervisor (S)	Examiner 1	Examiner 2. (E2	Average (0.5 S+0.25 E1+0.25 E2)	al
	Supe	Exan	Exan	Aver E1+0	Total
Literature review					
Identify similar projects in the literature					
Observe and list modern tools, simulators, advanced techniques that are used in the literature for similar target project					
Demonstrate an understanding towards the computing profession					
responsibilities through literature review.		1			
Find information relevant to problem solution without guidance					
Literature Analysis					
Ability to interpret and discuss any solution given in the literature					
Use of various approaches of self-learning during literature review and					
analysis					
Assess the effect of constraints and specifications on an computing problem as					
being practiced in the literature					
Identify the cu1rrent critical issues confronting the discipline					
Observe and list ethical issues that are related to the target project					
Problem Formulation					
Articulate and relate the computing issues with problem physical variables					
Express the problem mathematically					
Analyze the problem and divide it into component					
Define/identify a problem constraints					
Select and justify a solution to a technical problem.					
Identify missing knowledge in seeking problem solution, then self-learning the		1	ı		
missing knowledge					
Importance of the project to the society					
Project Requirement Specification (PRS)					
Requirements Analysis expected feature					
constraints, interface					
Project Management Plan (PMP)					
Project development approach					
Associated milestones					
Deliverables					
Team Work					
Researches and gathers information					
Fulfill duties of team roles					
Shares in work of team					
Attends the team meetings and contributes in the discussions					
Communication Skill					
Write a technical report					
Use language (grammar, spelling, expressions, vocabulary					
Listen and respond to question					
Use audio-visual equipment.					
Communicate Effectively					
Total Marks					

Graduation Project-II

Assessment Form (Final Evaluation)

Project Title:					
Course : PROJECT II		Stu	ıden	t-Sco	re
Student Name:				1+0.25	
Student ID:		(E1)	(2)	+0.25 E1	
Semester	Supervisor (S)	Examiner 1 (E	Examiner 2. (E2)	Average (0.5 S+0.25 E1+0.2. E2)	Total
Literature review & Analysis					
Identify similar projects in the literature					
Observe and list modern tools, simulators, advanced techniques that are used in the literature for similar target project					
Ability to interpret and discuss any solution given in the literature					
Find information relevant to problem solution					
Assess the effect of constraints and specifications on an computing problem as being practiced in the literature					
Project Design					
Follow the <u>design principal</u>					
System Design & Modeling, Fulfill the basis for implementation and unit test					
Describes the rationale for design decisions taken					
Coding, Testing & Implementation					
Follow the Coding principal, use latest tool ,language etc					
Use /Design Test cases for Testing of the Project					
Implementation of the Project (Are the result is evaluated according to the list					
of requirements that was created in the definition					
Importance of the Project in Society					
Future Work					
Team Work					
Researches and gathers information					
Fulfill duties of team roles					
Shares in work of team					
Teammate listens to other					
Attends the team meetings and contributes in the discussions					
Communication Skills	,				
Write a good technical report					
Listen and respond to question					
Communicate & Present the Work Effectively					
Total					

Deduction Rules

Supervisor continuously assesses students on a process criterion during the project. Late submissions and irregular meetings may result in deduction of marks depending upon the supervisor's judgment.

Table III: Criteria for late project report submission

Report Delay	Marks Deduction			
1 day	(1/3marks)			
2 day	(2/3marks)			
3 day	(0 marks)			
No Oral Presentation without report				
submission				

8. Deliverables

Deliverable

Table IV - GP Deliverables

Student

Due

Purpose

Deliverable	ruipose	45	Information		Due			
Start of Semester 1								
Project	To finalize and submit the prob	lem	Subr	nit to	4th week of			
Proposal	statement, motivation of the pro		supe	rvisor	semester 1			
	project scope and expected outco	omes						
Mid-term	To assess the students' progres	s in	Subr	nit to	8th week of			
report	their		supe	rvisor	semester 1			
	proposed project							
Project	To submit project deliverable			nit to	15 th week of			
report	(including the recommended		supe	rvisor	semester 1			
	documents of Semester 1 show	n in						
	Table II)							
Ein al	in the form of a single repor		Cl		1 F+b l C			
Final	An evaluation committee is invit			nit to	15 th week of			
Presentation	evaluate students' projects pov	wer		visor & ination	semester 1			
	point presentation		Exam	mauon				
	Grading of Semester 1 a	nd End	d of Sem	ester 1				
	Start of Sen	nester	2					
Mid-term	To assess the students' progress	Sub	mit to	8 th w	veek of semester 2			
Report	in execution plan,	supe	ervisor					
	implementation (coding) and							
	testing of their project							
Final Report	A single report containing all	Sub	mit to	14 th v	week of Semester 2			
	project deliverables (including	Supe	ervisor					
	the recommended documents of							
	Semester 2 shown in Table III)							
	in the form of a single report.							

Final Presentation & demo	An evaluation committee is invited to evaluate students' projects	Present to Supervisor, Examiners	15 th Week of Semester 2				
Grading of Semester 2 and End of GP							

TABLE V - Documents recommended and can be part of the deliverables shown in Table I and Table II

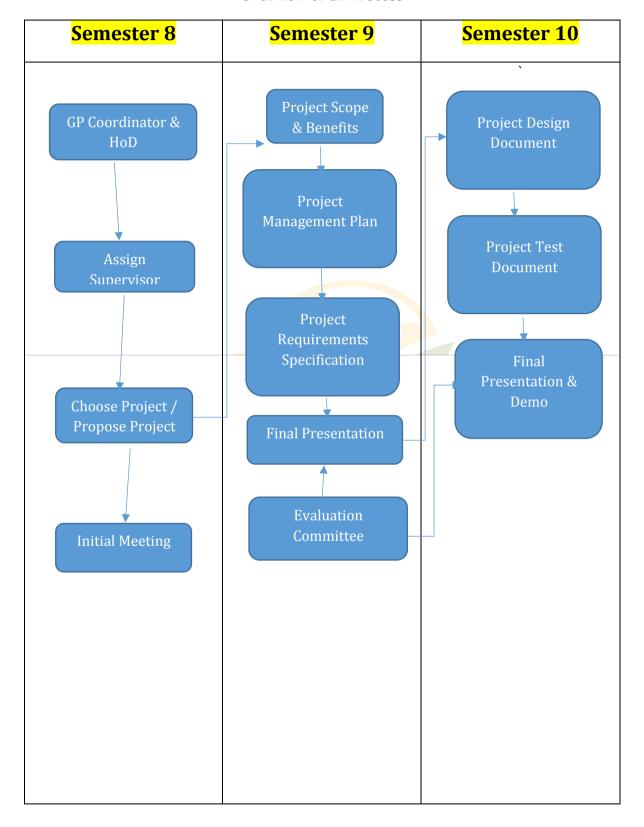
Deliverable	Purpose	Student informat ion	Due			
Start of Semester 1						
Project Management Plan (PMP)	To document the motivation for the project, need of the project, project development approach, milestones of the project, agreed deliverables and dates of deliverables	Submit to superviso r	10 th week of Semester 1			
Project Requirement Specification (PRS)	To document the requirements, expected outcomes, constraints, Graphics User Interfaces and system design and modeling	Submit to superviso r	13 th week of Semester 1			
	Start of Semester 2					
Project Design Document	To document the design of the project for detailed implementation and for unit testing	Submit to superviso r	3 rd week of Semester 2			
Test Document	To document how the project will implemented, tested, and record the results.	Submit to superviso r	13 th week of Semester 2			
	Grading of Semester 2 and End of	of GP				

End of GP Submission

- Two copies of the bound report (one for the student and one for the college archive)
- A CD in each report comprising the following folders:
 - o Report (soft copy of the final report, and power point presentation)
 - Code (complete source code of the project)
 - Demo (the executable in working order and a readme file containing the information about the software requirements (tools) and hardware requirements for the GP as well as the instructions or the steps (soft copy of the user manual) for running the GP executable).

Appendix A

Overview of GP Process



[DOCUMENT TITLE]

[PROJECT NAME]

Document History:

Version (Draft/final)	Author	Description of Version	Date	Signature

Reviewers:

Team Members	Student Name	Registration No	Date	Signature
1				
2				
3				

Supervised by:	<supervisor name=""></supervisor>	<date></date>
< <u>Signature></u>		
Approved by:	<coordinator name=""></coordinator>	<date></date>
<u><signature></signature></u> [Project Team] Dept. of		
Faculty of Comput	er and Information Sciences	

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Appendix C

< Project Name >

Project Management Plan

Version No < 1 >

Date dd/mm/yy

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of Project Management Plan

2 EXECUTIVE SUMMARY OF PROJECT CHARTER

2.1 Assumptions/Constraints

3 SCOPE MANAGEMENT

- 3.1 Work Breakdown Structure
- 3.2 Deployment Plan
- 3.3 Change Control Management

4 SCHEDULE/TIME MANAGEMENT

- 4.1 Milestones
- 4.2 Project Schedule
 - 4.2.1 Dependencies

5 COST/BUDGET MANAGEMENT

- **6 QUALITY MANAGEMENT**
- 7 HUMAN RESOURCE MANAGEMENT

8 COMMUNICATIONS MANAGEMENT

8.1 Communication Matrix

9 RISK MANAGEMENT

9.1 Risk Log

10ISSUE MANAGEMENT

10.1 Issue Log

11PROCUREMENT MANAGEMENT

12COMPLIANCE RELATED PLANNING

Appendix A: Project Management Plan Approval

Appendix B: REFERENCES

Appendix C: KEY TERMS

Appendix D: SUMMARY OF SPENDING

Appendix D

< Project Name >

Project Requirement Specification

Version No < 1 >

Date dd/mm/yy

Appendix D

Table of Contents

1. EXECUTIVE SUMMARY

- 1.1 Project Overview
- 1.2 Purpose and Scope of this Specification

2. PRODUCT/SERVICE DESCRIPTION

- 2.1 Product Context
- 2.2 User Characteristics
- 2.3 Assumptions
- 2.4 Constraints
- 2.5 Dependencies

3. REQUIREMENTS

- 3.1 Functional Requirements
- 3.2 User Interface Requirements
- 3.3 Usability
- 3.4 Performance
 - 3.4.1 Capacity
 - 3.4.2 Availability
 - 3.4.3 Latency
- 3.5 Manageability/Maintainability
 - 3.5.1 Monitoring
 - 3.5.2 Maintenance
 - 3.5.3 Operations
- 3.6 System Interface/Integration
 - 3.6.1 Network and Hardware Interfaces
 - 3.6.2 Systems Interfaces
- 3.7 Security
 - 3.7.1 Protection
 - 3.7.2 Authorization and Authentication
- 3.8 Data Management
- 3.9 Standards Compliance
- 3.10 Portability

4. USER SCENARIOS/USE CASES

5. DELETED OR DEFERRED REQUIREMENTS

6. REQUIREMENTS CONFIRMATION/STAKEHOLDER SIGN-OFF

APPENDIX

- Appendix A. Definitions, Acronyms, and Abbreviations
- Appendix B. References
- Appendix C. RequirementsTraceability Matrix
- Appendix D. Organizing the Requirements

Appendix E

Project Design Description (PDD)

Cover Page Table of Contents

1 INTRODUCTION

- 1.1. Functional Requirements
- 1.2. Non-Functional Requirements
- 1.3. Design Overview
- 1.4. Requirements Traceability Matrix

2 SYSTEM ARCHITECTURAL DESIGN

- 2.1. System use-cases
- 2.2. Interaction Diagrams
- 2.3. Class Diagrams
- 2.4. System Architecture
- 2.5. Database Design

3 DETAILED DESCRIPTIONS OF COMPONENTS

3.1. Component-n

4 USER INTERFACE DESIGN

- 4.1. Description of the User Interface
- 4.2. Screen Images
- 4.3. Objects and Actions

5. ADDITIONAL MATERIALS

Appendix F

Project Test Documentation (PTD)

Cover Page Table of Contents

1 INTRODUCTION

- 1.1. System Overview
- 1.2. Test Approach

2 TEST PLAN

- **2.1.** Features to be Tested
- 2.2. Features not to be Tested
- 2.3. Testing Tools and Environment
- **2.4.** System Testing
 - **2.4.1.** Unit Testing
 - 2.4.2. Integration and Regression Testing
 - **2.4.3.** Performance and stress testing
 - **2.4.4.** User acceptance testing
 - **2.4.5.** Test cases

3 TEST CASES

- 3.1 Case-n
- 3.2 Purpose
- 3.3 Inputs
- 3.4 Expected Outputs & Pass/Fail criteria
- 3.4 Test Procedure

4 ADDITIONAL MATERIAL (including appendix A)

APPENDIX A. TEST LOGS

A.n Log for test n

A.n.1 Test Results

A.n.2 Incident/Bug Report

Appendix G

Submission Instructions:

- The graduation project report must be submitted in **A4** size. Number of copies to be **submitted**: Two (One copy for your Department, One for your Project Guide).
- Each group member must print and keep one copy of signed and sealed project report. (*As project report may be requested by interviewers during your early career job interviews*)
- The certificate page as depicted in the following pages must consist of names and University ID numbers of all group members.

Paper, Typing, Format Instructions:

- Paper (A4 size) must be used for the preparation of the project report. Typing must be done on one side
 of the paper with character font in size 12 of Times New Roman.
- The layout must provide a margin of **4 cm** on the left, **3 cm** on the top and bottom and **2 cm** on the right. i.e. Left margin space 4 cm

top and bottom margin space 3 cm

Right margin space 2 cm

- Fresh paragraph must commence after **five spaces**. **Double-spacing or One and half line** spacing shall be provided through the report.
- The page numbers must be indicated at bottom-middle of each page.
- Should not underline the heading/subheadings and must not put colons (:) in headings or subheadings.

Binding Instructions:

• The report must be properly bound, using Rexene of **black color.** The bound front cover must indicate in suitable embossed letter the following:

```
Top:

(Title of Project)

(Full Name and University ID)

Bottom:

Department of CS/IT/CE/IS

College of Computer and Information Sciences

Majmaah University

(Year/Semester of Submission)
```

Instructions format for first few significant pages:

• **Two blank papers (first and last)** must be provided that is one at the beginning and one at the end.

Third Page

• The third page must contain the following

Title

Project report submitted in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science

By

(Name of the All Group Member(s))

(All University ID Number(s))

(Email(s))

Bottom

Department of CS/IT/CE/IS

College of Computer and Information Sciences

Majmaah University

Al Majmaah, Saudi Arabia

Fourth Page

• The fourth page must contain a certificate signed by the guide(s) in the following format.

Certificate

This is to	certify that the	roject report e	ntitled	haina cui	hmittad l	217
I IIIS IS to	certify that the	oroject report e	muuea	being su	ommuea i	Jγ

Name1 UID1

Name2 UID2

Name3 UID3

Name4 UID4

in partial fulfillment for the award of the Degree of Bachelor of Science in (CS/IT/CE/IS) to the Majmaah University, AlMajmaah, Saudi Arabia is a record of authentic work carried out under my guidance and supervision.

The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

(Guide Name)

(Designation)

Head of the Department

Fifth Page

(Required only if project activity is carried out in external organization)

The fifth page may include the External Certificate given by Organization or Company where the group has done the project. College certificate must precede this certificate.

Sixth Page

The sixth page may include the Acknowledgements (If any)

In this sections the author(s) can acknowledge his/her gratitude or convey thanks to one or more persons.

Seventh Page

- The seventh page must contain an abstract of the Project report.
- Group Members are expected to write the brief summary of the problem statement. The reader of this abstract must grasp a quick idea about the objectives of project that students are going to perform.
- The candidate may also emphasize his/her ideas/contributions here.

Eight and Ninth Page

• In this page, a table of contents, list of tables, list of figures, and photographs and notation must be provided.

Important Note about Page Numbering standards:

- All the above pages are to be numbered in Roman numerals of lower case. Ex. i,ii,iii,iv,...
- The document pages must be numbered using numbers i.e. 1,2,3.....

Arrangement of Units/Chapters depending upon the project

The following is suggested format for arranging the project report content into various units or chapters:

1. EXECUTIVE SUMMARY

- 1.1 Project Overview
- 1.2 Purpose and Scope of this Specification

2. PRODUCT/SERVICE DESCRIPTION

- 2.1 Product Context
- 2.2 User Characteristics
- 2.3 Assumptions
- 2.4 Constraints
- 2.5 Dependencies

3. REQUIREMENTS

- 3.1 Functional Requirements
- 3.2 User Interface Requirements

4. SYSTEM ARCHITECTURAL DESIGN

- 4.1. System use-cases
- 4.2. Interaction Diagrams
- 4.3. Class Diagrams
- 4.4. System Architecture
- 4.5. Database Design

5. DETAILED DESCRIPTIONS OF COMPONENTS

5.1. Component-n

6.USER INTERFACE DESIGN

- 6.1 Description of the User Interface
- 6.2 Screen Images
- 6.3 Objects and Actions

7. TEST PLAN

- 7.1 Features to be Tested
- 7.2 Features not to be Tested
- 7.3 Testing Tools and Environment
- 7.4 System Testing
 - 7.4.1 Unit Testing
 - 7.4.2 Integration and Regression Testing
 - 7.4.3 Performance and stress testing
 - 7.4.4 User acceptance testing

8. TEST CASES

- 8.1 Case-n
- 8.2 Purpose
- 8.3 Inputs
- 8.4 Expected Outputs & Pass/Fail criteria
- 8.5 Test Procedure

9. Conclusions

- 10. Further Enhancements/Recommendations
- 11. References/Bibliography
- 12. Appendices (if any).

Instruction for Arrangement of Paragraph in a Chapter:

- Each paragraph in a chapter must be properly numbered for example, 2.1, 2.2 etc., where first digit represents the Chapter Number and second digit the paragraph number. There is no need to indicate the number for the first paragraph in a chapter.
- Sub-paragraphs, if any indicated as 1.1.1, 1.1.2 etc. i.e. first digit representing the chapter, the second representing the paragraph and third representing the sub-paragraph.
- Don't underline the headings or subheadings or side heading. Instead use the bold letters.

Instructions for Photographs/Figures and Tables

- The figures, photographs and tables occurring in a chapter may be serially numbered as Fig. 1.1, 1.2 etc., where the first digit represents the chapter, the second digit represents Figure number.
- The photographs may be represented as Photo 1.1, 1.2 etc., the first digit representing chapter and the second digit represents Photograph number.
- The tables may be represented as Table 1.1, 1.2 etc., the first digit representing chapter and the second digit represents table number.

Instructions for Graphs:

(No hand drawn graphs) The graph must clearly indicate the points, which are used for drawing the
curve or curves and also must be generated using MATLAB or MS-OFFICE or any other professional
graphing tool etc.

Instructions for Bibliography or References:

• The following format may be used for writing the Bibliography/References.

Author Name, Title of the book or paper, Publisher name, year.

Eg:

Sergois, Aggelos, Konstantinos Koutroumbas, and Dionisis Cavouras. *Introduction to Pattern Recognition: A Matlab Approach*. Elsevier: Academic Press AP, 2012.

(An article in a journal)

Booth, Wayne C. "Kenneth Burke's Way of Knowing." Critical Inquiry 1 (1974): 1-22. Winks, Robin W. "The Sinister Oriental Thriller: Fiction and the Asian Scene." Journal of Popular Culture 19.2 (1985): 49-61.

• The bibliography list must be made strictly in alphabetical order of the name of the authors.

Sample format of certificate page (Fourth Page)

Certificate

This is to certify that the project report entitled (YOUR PROJECT TITLE) being submitted by

(Group Member Name 1) (UID 1)

Group Member Name 2) (UID 2)

(Group Member Name 3) (UID 3)

(Group Member Name 3) (UID 4)

in partial fulfillment for the award of the Degree of Bachelor of Science in (CS/IT/CE/IS) to the College of Computer Sciences, Majmaah University is a record of authentic work carried out under my guidance and supervision. The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

(Supervisor)

Designation

Head of the Department

Appendix H

Final Year Project Start Form

Fill in the information below as detailed as you can when submitting your project idea.

	P	roposed Team	
Student ID	Name	Email	Credit Hrs *

Area of interest (Tick one or more)			
Development Track Research Track			
1. Web Development	1. Software Engineering		
2. Multimedia	2. Information Security		
3. Mobile	3. Digital Forensics		
Applications	5. Digital Polelisics		
4. Network	4 Innevative Teel Development		
Applications	4. Innovative Tool Development		
5. Others:	5. Others:		

Abstract	t of the Proposed Projects

(For Office use only)

(To be filled by the Project Coordinator)

Project Accepted Project Rejected	
Supervisor Name: Reason(s):	

GP Coordinator, CS/IT/CE/IS Department

Proposal for FINAL YEAR PROJECT IN CS/IT/CE/IS - By Faculty Members			
Title of the Project			
	< <title>></th></tr><tr><th>Abstract of the project</th><th></th></tr><tr><td></td><td><<Abstract – 100 words>></td></tr><tr><th>Keywords</th><th></th></tr><tr><td></td><td><<3 to 4 keywords>></td></tr><tr><td>PROJECT DESCRIPTION</td><td></td></tr><tr><td></td><td><<Detailed Description – 1 page>></td></tr><tr><th></th><th></th></tr><tr><td>Extra features of Web's Eye</td><td></td></tr><tr><td></td><td><<Features>></td></tr><tr><th></th><th></th></tr><tr><td>SYSTEM REQUIREMENT</td><td></td></tr><tr><td></td><td></td></tr><tr><td>SOFTWARE REQUIREMENTS</td><td></td></tr><tr><th>Operating system :</th><th></th></tr><tr><td>Language :</td><td></td></tr><tr><td>Browsers :</td><td></td></tr><tr><td></td><td></td></tr><tr><td>Packages :</td><td></td></tr><tr><td>HARDWARE REQUIREMENTS</td><td></td></tr><tr><td>Processor :</td><td></td></tr></tbody></table></title>		

: ---GB (minimum)

: --MB/GB (minimum)

35

RAM

Display

Secondary Memory

Milestones and Timelines

Number	Milestone	Milestone	Timeline	Remarks
	Name	Description		
			Week no.	
			from the	
			start	
			of the project	
1	Requirements Specification			
2	Technology familiarization		44	
3	Database creation			
4	High-level and Detailed Design			
5	Implementation of the front-end of the system			
6	Integrating the front-end with the database			
7	Integration Testing			
8	Final Review			

Appendix I

GP Regular Supervision Record Form

Students and supervisors should use this form to help structure and provide a record of their meetings. At least ten meetings' reports per semester are required as documentation depending on the nature of the project and the required tasks.

SEC	CTION 1 to be completed by the STUDENT price	or to supervision meeting
a)	Name:	b) Supervisor's name:
c)	Date/time of supervision:	d) Date of last supervision:
e)	Work submitted to supervisor since last supreturned to you)	ervision meeting (with date work submitted <u>and</u>
f)	Work undertaken since last supervision mee	eting:
g)	Issues you would like to discuss in the super	vision meeting:

SEC	TION 2 to be com	pleted at the supervision m	eeting	
a)	Topics covered i	n supervision meeting (plea	se refer to Section 1	(g) above):
b)	Work student sh	ould undertake betwe <mark>en n</mark> o	w and next formal m	neeting (with dates:
SEC	TION 3 Date/	Time of next meeting:		
	This form con	ntains a good summary of ou	ır meeting	
	Signatures :	Student		Date
		Supervisor		Date

A copy of this form should be kept by the supervisor , the student, and in the student's file in the Departmental Office

Appendix J

Monthly Progress Report Department of _____

College of Computer and Information Systems (CCIS)

Projec	ct ID) :
Projec	ct Na	ame:
Name	of t	he Supervisor:
Date:		
Period	d cov	vered: From//20 to//20
		Team members:
	1.	List and describe your tasks during last month
	2.	List and describe your pending tasks from last month along with their reasons
	3.	Task Plan for the next month
	4.	Any other comments

Signatures:

Signature of the Supervisor:

	Team Member's Name & ID	Designation	Signature	Date	
Please write				//20	d
				//20	
				//20	-
				//20	

don't

anything below. To be filled by the GP Coordinator

GP Coordinator's Comments

Appendix K
Evaluation Rubrics: Graduation Project-I & II

	Unsatisfactory(1)	Developing(2)	Competent(3)	Exceptional(4)
Content		1 30)		1 ()
Literature review	The student is not able to understand issues and problems, not able to find modern tools, simulators that are used in the literature review for similar target project	The student is able to understand issues and problems, also able to identify similar projects, modern tools, simulators, advanced techniques that are used in the literature review for similar target project	Able to Identify similar projects in the literature, Develops a strategy. comes up with a reasonable solution	Suggests new approaches and improves on what has been done before
Literature Analysis	The student is not able to interpret and discuss any solution given in the literature	The student is able to interpret and discuss a solution ,know approaches of self-learning during literature review and analysis	Identify the current critical issues confronting the discipline from literature review	Identify the current critical issues and develop the frame work that improves on what has been done before ,also find the ethical issues that are related to the target project
Problem Formulation	Not able to Articulate and relate the computing issues with problem physical variables.	Articulate and relate the computing issues with problem physical variables. Express the problem mathematically	Analyze the problem and divide it into components Define/identify a problem constraints Select and justify a solution to a technical problem.	Define/identify a problem constraints, Identify missing knowledge in seeking problem solution, then self-learning the missing knowledge
Project Design	Not able to understand the design principal	Know the Design principal. Use Design & Modeling tools in the project.	Know and apply System Design & Modeling tool,	Describes the rationale for design decisions taken

Coding, Testing & Implementation	Do not know the Coding principal, latest tool ,language , How Testing is done for the Project , also do not know the	Know the Coding principal, use latest tool, language	Design Test cases for Testing of the Project Know the Importance of the Project in Society	Evaluate the result according to the list of requirements that was created in the definition, know the Importance of the Project & Future Work
	Importance of the Project in Society			Tuture Work
Team Work	System Design & Modeling, Fulfill the basis for implementation and unit test	Researches and gathers information. Fulfill duties of team roles Shares in work of team Attends the team meetings and contributes in the discussions	Fulfill duties of team roles Shares in work of team Attends the team meetings, Researches and gathers information.	Attends the team meetings and contributes in the discussions
Communication Skills	Do not communicate and present effectively, Oral as well as written communication skills are poor	Communicate and present effectively, Report is Good written, respond to some of the question	Communicate and present effectively, Listen and respond to most of the question	Oral as well as written communication skill is good, Report is written in a professional way, respond to all question