

## INSTITUTE OF INFORMATION TECHNOLOGY & MANAGEMENT, NEW DELHI

**Date: 11/02/2025**

### Project Guidelines for Minor Project – II for MCA-170

#### Objective

All the students enrolled for MCA Programme, have to undergo compulsory Minor Project- II as a part of curriculum. The aim of the project is to develop working expertise of solving complex computing problems through project based learning approach using real world case studies by implementing the concepts studied in the theory courses of this semester. It provides an occasion for students to realize the importance of resource and time management, ownership of task towards deliverables, innovation and efficiency in the task management. It also provides a good opportunity for students to build, enhance and sustain high levels of professional conduct and performance and evolves a problem solver frame of mind in students at early stage. It also prepares students for taking up responsible assignments in the corporate establishment.

CO #	Detailed Statement of the CO	BT Level	Mapping to PO #
CO1	Apply acquired knowledge within the chosen technology for solution of specific real world problem.	BTL3	PO1, PO2, PO3, PO4
CO2	Analyze the technical aspects of the chosen project through a systematic and comprehensive approach.	BTL4	PO1, PO2, PO3, PO4, PO5, PO6
CO3	Deduct plausible solution for the technical aspects of the project.	BTL5	POT, PO2, PO3, PO4, PO5, PO6, PO7, PO10
CO4	Work as an individual or in teams to develop the technical project.	BTL6	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11, PO12
CO5	Create effective reports and documentation for all project related activities and solutions.	BTL6	PO11

#### University Scheme for Minor Project

- As per the syllabi of MCA (Paper Code: MCA-170), students of Semester II are to write a project report comprising of 3 credits. The project report has two components, viz.
  - External: Project (60 Marks), where a written report is to be submitted. It involves external viva and presentation.
  - Internal: Project (40 Marks), it includes continuous evaluation from idea generation to final presentation.

## **Scope of Minor Project**

It is partly the responsibility of the student(s) to find a relevant topic for the project and decide it in consultation with the guide allocated. The project work shall be an application development in a language/platform that the student has learnt during the current semester. It shall be an in-house development. There can be maximum of 2 students in a group.

**NOTE: ANY PREVIOUS WORK OR BORROWED REPORT WILL BE SUMMARILY REJECTED AND IN ALL CASES OF REJECTION THE WORK IS TO BE REPEATED AFRESH. STUDENT MUST ENCLOSE PLAGIARISM REPORT OF THEIR PROJECT TO AVOID DUPLICACY OF WORK.**

## **METHODOLOGY FOR THE PROJECT WORK**

General Guidelines that are to be performed to conduct the minor project are given in details in **Appendix-A**.

## **Format & Final Report**

The student will submit their project report in the prescribed format, as given hereunder, after the second presentation. The project report should include:

- a) ONE hard copy (Blue color with golden print) of the project report.
- b) Soft copy of project on Google Drive link including all resource code/ compiled binary code and the manuscript in MS-Word document format.

The Guidelines for the format to be used for compilation of the project report are given in **Appendix-B**. All students are to adhere to these guidelines.

## **Appendices**

The appendices are to be attached at the end of the report and to be numbered as Appendix-A, Appendix-B etc right justified at the top of the page. An appendix may have annexure (s). If there are annexure, these are to be attached immediately after the said appendix. The annexure are to be numbered as Annexure-I, Annexure-II, Annexure-III and Annexure-IV etc.

## **Schedule of Submissions**

Students are required to strictly follow the schedule given below:

To be Completed by Date	Activity	Marks Allotted	Remarks
12-2-2025	Briefing about the Minor Project	-	-
14-02-2025	Finalisation of Topic		
17-02-2025	Phase I: Project Synopsis / Project Proposal	5	As per Appendix-A.
01-03-2025	Phase II: Completion & Submission of activities Under Chapter 1 and Chapter 2	5	As per Appendix-A.
15-03-2025	Phase III: Completion & Submission of activities Under Chapter 3 and Chapter 4	10	As per Appendix-A.
29-03-2025	Phase IV : Project Demonstration & Submission of Final Project Report	10	As per Appendix-A .
12-04-2025	Phase V: Internal Project Presentation & Viva-Voce	10	As per Appendix-A & B.
	Internal Evaluation	<b>40</b>	
	External Project Evaluation	<b>60</b>	
<b>Total Marks</b>		<b>100</b>	

Ms. Kavita Srivastava  
Project Coordinator

Prof. (Dr.) Ganesh Kumar Wadhvani  
HOD

Prof.(Dr.) Rachita Rana  
Director

Copy to:

1. All Students of MCA II
2. All Guides

## **Appendix 'A'**

### **GENERAL GUIDELINES FOR THE PROJECT WORK**

1. The project should be original, of real-life value, and not copied from existing material from any source.
2. Design document should also be reviewed and code should also be peer reviewed.
3. A user manual has to be prepared and reviewed.
4. Testing has to be thorough and at various levels, followed by an acceptance test based on the requirement document and user manual.
5. One Project has to be submitted only by one or maximum of two students.
6. Every group has to get their synopsis approved from the guide.
7. The synopsis must be brief i.e., not more than 4-6 pages. It must address details like (however, students may follow the **SRS format of IEEE** for writing Synopsis)
  - a. Name / title of the project,
  - b. Statement about the problem,
  - c. Why the Particular topic is chosen? It must address Present State of the Art.
  - d. Objective and scope of the project,
  - e. Analysis, Design, Development & Testing Methodology (As per the problem statement)
  - f. H/W & S/W to be used,
  - g. Testing Technologies to be used,
  - h. What contribution / value addition would the project make?
  - i. Limitations / constraints of the project,
  - j. Conclusion, Future Scope for Modification,
  - k. References and Bibliography.
8. After approval of the Synopsis, Students will need to give Two Presentations / Demonstration, as per the schedule fixed by their respective Institutions or University. Final Project reports should be given latest by the end of the semester.

## **Appendix-B**

### **FORMAT OF THE PROJECT REPORT**

#### **Format**

Note the following guidelines with respect to Preparation of the Documentation. Please note that documentation is meant for other people, and hence it must be self-explanatory, in all respect. The sequence of the Pages in the Project Report will be as follows:

### **FORMAT OF THE STUDENT PROJECT REPORT ON COMPLETION OF THE PROJECT**

#### **Format of Synopsis**

1. Title of Project
2. Problems with the Existing System
3. Description of the Proposed System
4. Description and identification of the Functional Modules (Here, mention the name of the modules and the users of the system)
5. Tools/Platforms
  - 5.1. Hardware specification (RAM, HDD, Processor etc.)
  - 5.2. Software specifications (OS, Front End, Back End, Any other additional s/w interface reqd.)
6. Methodology
  - 6.1. SDLC Model to be used
  - 6.2. Justification for the Selection of Model
7. Future Scope

#### **Format of Project Report**

1. Title Page as per format
2. Acknowledgement
3. Certificate of the project guide
4. Synopsis of the Project
5. Main Report

#### **Title Page**

The format of the title page is attached as **Annexure-I**.

## **Certificate**

The format of the certificate is attached as **Annexure-II**. A certificate by the student, guide and duly authenticated by the Directors to be attached.

## **Acknowledgement**

In the "Acknowledgement" page, the writer recognizes his indebtedness for guidance and assistance by the guide and other members of the faculty. Courtesy demands that he/she also recognizes specific contributions by other persons or institutions such as libraries and research foundations. Acknowledgements should be expressed simply, tastefully, and tactfully duly signed above the name.

## **TEMPLATE FOR CHAPTER SCHEME**

The format of 'Chapter Scheme is attached as **Annexure-III**.

## **FORMAT OF LIST OF TABLES AND FIGURES**

The format of 'list of Tables/Figures/Abbreviation and References/Bibliography is attached as **Annexure-IV**.

## **BODY OF THE PROJECT REPORT: GUIDELINES FOR PROJECT REPORT WRITING**

The pages coming under the preview of the CONTENTS will only be numbered in the BOTTOM of the Page Centrally Aligned.

1. ONE Hardbound Copies (One Original and Two Xerox) will be submitted with the Institute out of which one will be given back to the candidate. All the students are required to follow the same binding format in blue color with back quote mentioning title of the project, name of the student and year.
2. At the end of the Project Report Two White blank sheets must be attached.
3. At the beginning of each chapter one blank page (Strictly as per the sample supplied) must be attached. These pages will neither be numbered nor counted in total numbering of pages. They will only indicate the beginning of a New Chapter with its learning objectives.
4. Font size of the documentation will be 12 Times New Roman and the pages will be one and half line spaced. The page margin will be as under: -  
Top – 1 inch, Bottom – 1 inch,  
Left – 1.5 inch, Right – 1 inch.
5. Good quality white A4 size paper should be used for typing and duplication. Care should be taken to avoid smudging while duplicating the copies.

6. Page Specification: (Written paper and source code)

- Left margin - 3.0 cms
  - Right margin - 2.0 cms
  - Top margin 2.54 cms
  - Bottom margin 2.54 cms
  - Page numbers - All text pages as well as Program source code listing should be numbered at the bottom center of the pages.
7. **Normal Body Text: Font Size:** 12, Times New Roman, Double Spacing, Justified. 6 point above and below para spacing
8. **Paragraph Heading Font Size:** 14, Times New Roman, Underlined, Left Aligned. 12 point above & below spacing.
9. **Chapter Heading Font Size:** 20, Times New Roman, Centre Aligned, 30 point above and below spacing. **Coding Font size:** 10, Courier New, Normal
10. Kindly note that all- methodological details and theoretical aspects must be written in students own words. Copying from books or other students will not be accepted, in any case.

\*\*\*\*\*All students are informed not to write definition of various concepts in index, mention the topics w. r. t. to your project (i.e., how various concepts have been implemented in the project) \* No detailed theories required.\*\*\*\*\*

Title of the Project Report  
(Times New Roman, Italic, Font size = 24)

*Submitted in partial fulfillment of the requirements*

*for the award of the degree of*

*Master of Computer Applications*

*To*

*Guru Gobind Singh Indraprastha University, Delhi*

Guide:

(Guide Name)

(Designation)

Submitted by:

(Student name)

(Enroll No)



Institute of Information Technology & Management,  
New Delhi – 110058  
Batch (2024-2026)



Annexure-II

Certificate

I/We, (Name & Roll No) certify that the Minor Project Report (MCA-170) entitled “\_\_\_\_\_” is done by me/us and it is an authentic work carried out by me/us at \_\_\_\_\_ (Name of the organization or of the Institute). The matter embodied in this project work has not been submitted earlier for the award of any degree or diploma to the best of my knowledge and belief.

Signature of the Student

Signature of the Student

Date:

Certified that the Project Report (MCA-170) entitled “\_\_\_\_\_” done by the above student is completed under my guidance.

Signature of the Guide:

Date:

Name of the Guide:

Designation:

Countersign HOD

Countersign Director

## TEMPLATE FOR CHAPTER SCHEME

### CONTENTS

(Font size -18)

Certificate	i
Acknowledgements	ii
List of Tables/Figures/Symbols	iii
Synopsis	iv

#### CHAPTER 1: INTRODUCTION

1.1 Problem Introduction	
1.1.1 Project Objectives	1
1.1.2 Purpose of the project	2
1.1.3 Description of the proposed system	
1.2 Tools and Platform	
1.3 Project Planning	
1.3.1 Team-member wise work distribution table	
1.3.2 PERT Chart	
1.4 Methodology	
1.5 Organization of the report	

#### CHAPTER 2 : SYSTEM ANALYSIS

2.1 Product Perspective	
2.1.1 System Interface	
2.1.2 Hardware Interface	
2.1.3 Software Interface	
2.1.4 Communication Interface	
2.1.5 Memory constraints	
2.2 Product Functions	
2.3 User Characteristics	
2.4 Assumptions and dependencies	
2.3 Choice of the Platforms	
2.3.1 S/W used	
2.3.2 H/W used	

#### CHAPTER 3: SYSTEM DESIGN#

3.1 Physical Design	
3.1.1. Block Diagram/ Flow chart	
3.1.2 Processes	
3.1.3. Use Case diagrams	

- 3.1.4. Data Flow Diagram
- 3.1.5 Entity Relationship Diagram
- 3.2 Database Design
- 3.3 Interface Design
  - 3.3.1 Input Design
  - 3.3.2 Output Design

## **CHAPTER 4: IMPLEMENTATION AND RESULTS**

- 4.1 Testing Methodology ##
- 4.2 Implementation
- 4.3 Results

## **CHAPTER 5: CONCLUSION AND FUTURE SCOPE**

- 5.1 Conclusion
- 5.2 Limitations of the System
- 5.3 Future Scope for Modification

### **References/Bibliography (as per format)**

### **ANNEXURES (Screen Snapshots must be annexed)**

- # Please note that for all the System Design (Database, Input & Output) the basic Prototype, format, Table Structure, etc. is to be discussed along with related validations, verifications & normalization.
- ## Under Testing, you have to discuss the approach of Testing, Test Data, Test Cases and Test Report. How Debugging has been performed, on the basis of Test Report, must be also discussed?

### **LIST OF TABLES**

<b>Table No</b>	<b>Description</b>	<b>Page No</b>
3.1	Employee's Personnel Information	18
3.2	Purchase Information	20
3.3	Stock Information	22
3.4	Master Table	26

### **LIST OF FIGURES**

<b>Figure No</b>	<b>Description</b>	<b>Page No</b>
1.1	Organizational Chart	5
3.1	Data Entry Screen for Purchase	21
4.1		

### **LIST OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
<b>CAD</b>	Context Analysis Diagram
<b>DFD</b>	Data Flow Diagram
<b>HIPO</b>	Hierarchical Input Process Output

#### ***References/Bibliography:***

1. Patterson DW, "Introduction to Artificial Intelligence and Expert Systems", Second Edition, 2002, Prentice Hall of India Private Ltd., New Delhi.
2. V. Rajaraman, "An Introduction to Digital Computer Design", Third Edition, 1995, Prentice Hall of India Private Ltd., New Delhi.

**Note: All of the above three will be prepared on separate pages.**

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