

# **Jagannath International Management School**

**Vasant Kunj, New Delhi - 110070**

(Affiliated to Guru Gobind Singh Indraprastha University, New Delhi)

Recognized u/s 2(f) by UGC & Accredited with 'A' Grade by NAAC

Participant of UNGC & UNPRME, New York

ISO 9001:2015 Quality Certified

## **BCA-357 MINOR PROJECT GUIDELINES**

1. PHASE –I -----Refer Annexure –I for details
  - a. Project Team Formation ,
  - b. Guide Allocation ,
  - c. Project title & Platform Selection ,
  - d. Synopsis Submission
2. PHASE-II-----Refer Annexure –II for details
  - a. SDLC selection & timeline submission
  - b. Project Analysis & Feasibility Study Report
  - c. SRS-Functional & Non Functional Requirements
  - d. System Design Diagram 's
3. PHASE-III -----Refer Annexure –III for details
  - a. Project Coding
  - b. Project Testing
  - c. Project Report Submission

**PHASE –I****GUIDELINES FOR MINOR PROJECT SYNOPSIS FORMULATION****BCA-V**

The project work constitutes a minor component in most of the professional programmes and it is to be carried out with due care and should be executed with seriousness by the candidates.

In phase-I the students are required to form the groups of 3 students each for project work to be carried out in this semester. Each group will be allocated a project guide for further guidance and evaluation. The groups are required to perform

- **Preliminary analysis:** The objective of phase 1 is to conduct a preliminary analysis, propose alternative solutions, describe costs and benefits and submit a preliminary plan with recommendations.
  
- **Prepare Project Proposal (Synopsis):** The project proposal should be prepared in consultation with your guide. The project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken. The project work should compulsorily include the software development. The project proposal cum synopsis report should contain complete details in the following form and order:
  1. Cover Page----- (Annexure A)
  2. Title of the Project.
  3. Table of Contents -----(Annexure – B)
  4. Introduction including Problem Statement (Min 200 words and Max 250)
  5. Objectives of the Project (Min 150 words and Max 200)
  6. Tools/ Platform, Hardware and software Requirement specifications.
  7. Scope of the Project (Market Potential and Competitive advantage).

## **GUIDELINES FOR MINOR PROJECT REQUIREMENT, ANALYSIS & DESIGN PHASE**

### **PHASE –II**

To apply the concepts, tools & techniques of Software Engineering learnt during the previous semester on a real information system by a team of 3-4 students. The students are required to apply the software development process knowledge gained on any virtual or real world organization for developing a software solution.

**SDLC Model Selection:** Software Development Life Cycle (SDLC) is used during the development of an IT project, it describes the different stages involved in the project from the beginning till the completion of the project. Each team has to follow a particular model for the same. The model phases and implementation within the proposed project needs to be prepared.

**Preliminary System Analysis & Systems Requirement Gathering:** Digging into the organization's objectives and specific problems, the teams may have already covered some solutions. Alternate proposals may come from interviewing employees, clients, suppliers, and/or consultants. The teams can also study what competitors are doing. With this data, the users develop a new system. During this they prepare and submit the following documents:

- Identification of various Users & their requirements
- Requirement Gathering Tool Preparation: Questionnaire, Interview etc.
- Requirement of various Users –Sample Questioners etc.
- Proposed alternative solution

**Feasibility Study:** The feasibility study is carried out to select the best system that meets performance requirements. The main aim of the feasibility study activity is to determine whether it would be financially and technically feasible to develop the product. In this phase students will report the following feasibility study reports carried out during their respective software development.

- Technical Feasibility
- Economical Feasibility
- Operational Feasibility

**Physical Design:** Explain relationship between various components (processes, input, output & entities) of the system. Draw DFD's or other relative diagrams. (As per the implemented system design) . Diagram List to be covered under this phase depending upon project applicability

- System Flow Chart
- Use Case Diagram
- Data Flow Diagram's- Upto second level wherever applicable
- Site Maps / App Maps wherever applicable
- Any other Relevant diagram as per Project requirement

**Database Design:** Depending on the tool/package used, give contents of each file including Field Name, Type, and Size & Description. Generate ER diagram and Tabular Data Dictionary of the all supported data files & objects.(As per implemented database schema)

- Database ER Diagrams
- Database Table Structure or Relational Schema

**User Interface Design:** Proposed User Interface Designs

- Input (Form or Screen) Design:** For keying-in data. Give fields, format, codes to be used, validation (error detection) requirements & the file to which it is linked.

- **Output Design:** Screen & Print layouts, i.e., the format and contents (fields) to be included – along with the file to which it is linked.

**At the end of Phase –II**

The student will submit the following documents to be evaluated by respective project Guides:

- **The System Data Analysis & Design Report:** The report consists of all activities performed above to be presented in a structured document format. In form of Chapter 1, Chapter 2 & Chapter 3 of Final Report.

**GUIDELINES FOR MINOR PROJECT REQUIREMENT, ANALYSIS & DESIGN PHASE****PHASE –III**

The students are required to apply the programming and software development process knowledge gained during BCA course to develop a software solution for the proposed project. During this phase they are required to perform the following tasks:

- Coding
- Testing
- Implementation
- Final Report Submission

**REPORT ORAGNIZATION:**

The sequence in which the project report material should be arranged and bound should be as follows:

1. Title Page-----Appendix- C
2. Certificates [From the organization and Self Certificate]-----Appendix - D & E
3. Acknowledgement-----Appendix -F
4. Table of Contents-----Appendix-I
5. Abstract
6. List of Tables
7. List of Figures
8. Chapters (Introduction , Literature Survey, -----Appendix-J  
System Analysis(if applicable), System Design(if applicable),  
Coding Methodology, Testing(if applicable),  
Conclusion, Future Enhancement)
9. Appendices
10. References (Students should follow IEEE format of papers and books)

**CD ORAGNIZATION:**

1. Approved Synopsis Report
2. Complete Report with All Chapters
3. All Certificates, Cover Pages, Questionnaire, Annexures etc.
4. Software Coding
5. Executable Software

**Note: For detailed description contact your project guide**

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**A**

**Synopsis Report**

**On**

**“<Project Name>”**

For Partial fulfillment of Bachelor of Computer Application

**Submitted to Submitted by**

(Name of guide)

(Student name & Roll no.)

AUGUST, 2019

## Table of Contents

Title of the Project.....	I
1. Introduction including Problem Statement .....	01
2. Objectives of the Project .....	02
3. Tools / Platform, Hardware and Software Requirement specifications .....	03
4. Scope of the Project (Market Potential & Competitive advantage) .....	04

**TITLE OF PROJECT REPORT**

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**A PROJECT REPORT**

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***Submitted by***

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**NAME OF THE CANDIDATE(S)**

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***in partial fulfillment for the award of the degree***

***of***

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**NAME OF THE DEGREE**

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LOGO of JIMS

**NAME OF THE COLLEGE**

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**JAGANNATH INTERNATIONAL MANAGEMENT SCHOOL**

**VASANT KUNJ, NEW DELHI - 110070**

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**MONTH & YEAR**

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## **Certificate**

Certified that the Project Report (BCA-356) entitled “\_\_\_\_\_” done  
by the group of students “\_\_\_\_\_” (Name & Roll No), (Name & Roll No)  
and(Name & Roll No) is completed under my guidance.

Signature of the Guide

Date:

Name of the Guide:

Designation:

## **[SAMPLE] ACKNOWLEDGEMENT**

With candor and pleasure I take opportunity to express my sincere thanks and obligation to my esteemed guide \_\_\_\_\_ . It is because of his/her able and mature guidance and co-operation without which it would not have been possible for me to complete my project.

Finally, I gratefully acknowledge the support, encouragement & patience of my family, and as always, nothing in my life would be possible without God, Thank You!

Signature of the student  
(Name of the student)

## TYPING INSTRUCTIONS

The impression on the typed copies should be black in color.

<b>Word Processor</b>	Microsoft Word
<b>Page Size</b>	A4 (8.27" x 11.69") with page number
<b>Page Margin for all pages)</b>	To = 1 inch Bottom=1 inch Left =1.5 inch Right=1 inch
<b>Font</b>	Times New Roman
<b>CHAPTER TITLE</b>	16 pt. Bold & CAPITAL CASE
<b>Font Size for Headings</b>	14 pt. Bold & CAPITAL CASE
<b>Font Size for Sub-Headings</b>	12 pt. Bold & Title Case
<b>Font size for Normal Text</b>	12 pt.
<b>LineSpace for Text</b>	1.5 line space
<b>Paragraph</b>	6 pt. Space before and after paragraph & Alignment= <b>Justify</b>
<b>Reference</b>	Align= justify Line Space= single and 6 pt. space before the next reference.

**BCA-VI –MINOR PROJECT**  
**REPORT & CD SPECIFICATION**

**INSTRUCTIONS TO BE FOLLOWED**

- a) The project report should be hard bound with cover page printed on it in specified format.
- b) The colour of the cover of **hard bound** project report to be submitted in the department of Computer Application shall be **BLACK** with **GOLDEN** Text.
- c) Report, preferably, should be of about 100 pages. The content should be sufficient enough to explain the objective and implementation of the project that the candidate has developed.
- d) **Softcopy of Synopsis Submitted, Software Requirement Specification[SRS], The complete project report , The executable code and the Final presentation of the project along with running copy of your project should be submitted (written ) on CD accompanying the report [Compulsory].**
- e) **2 copies of the project report (with CD as specified in the previous point) are to be submitted to the Project Guides by given date.**

**SAMPLE FOR REFERENCE ONLY****TABLE OF CONTENTS**

<b>CHAPTER NO.</b>	<b>TITLE</b>	<b>PAGE NO.</b>
	<b>ABSTRACT</b>	<b>iii</b>
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# Topics to be included in Report

## **1. Chapter 1-INTRODUCTION**

- 1.1. Purpose
- 1.2. Scope
- 1.3. Objectives
- 1.4. SDLC Methodologies

## **2. Chapter 2- SYSTEM ANALYSIS STUDY**

### 2.1. INTRODUCTION

- 2.1.1. Project Overview
- 2.1.2. Existing System Study Report

### 2.2 SYSTEM REQUIREMENTS GATHERING

- 2.2.1. Prepared Questionnaire /Interview (With Filled Few Samples as Annexure)
- 2.2.2. Overview & Analysis of Data Gathered

### 2.3. FEESIBILITY STUDY

- 2.3.1 Technical Feasibility
- 2.3.2 Economical Feasibility
- 2.3.3 Operational Feasibility

### 2.4 SYSTEM REQUIREMENT STUDY REPORT

- 2.4.1 System Process Requirement
- 2.4.2 System Data Flow
- 2.4.3 Database Requirement
- 2.4.4 User Interface Requirement

## **3. Chapter-3 SYSTEM DESIGN**

### 3.1 INTRODUCTION

### 3.2 PHYSICAL DESIGN:

- 3.2.1 System Flow Charts
- 3.2.3 Use Case Diagram

3.2.3 Data Flow Diagram's Upto Level 2

3.2.4 Site Maps / APP Maps/Network Flow Charts etc.

3.2.5 Any Other Applicable Diagram

3.3 DATABASE DESIGN:

3.3.1 ER Diagram

3.3.2 Data Constraints applicable as per requirement

3.3.3 Database Schema

3.4 USER INTERFACE DESIGN

3.5.1 Input Screen Designs

3.5.2 Report Layout Designs

3.5.3 Any Other Interface for (Mobile App/ Networking App) Design

#### **4. Chapter 4- SOFTWARE CODING, TESTING & IMPLEMENTATION**

4.1 INTRODUCTION

4.1.1 System Coding Environment and Standards Followed

4.1.2 Sample Code Layouts

4.2 TESTING

4.2.1 Overview & Approach

4.3 TEST PLAN

4.3.1 Features to be tested & not to be tested

4.4. TEST CASES

#### **5. OUTPUT FORMS & REPORTS**

5.1 Input / Output Forms Screen Shorts With Sample Data

5.2 Reports in print Format with actual Data

#### **6. CONCLUSION & FUTURE ENHANCEMENT(S)**

6.1 Conclusion

6.2 Future Scope

#### **BIBLIOGRAPHY**

#### **APPENDICES**

**Note: Project guides are required to guide their respective candidates regarding inclusion of topics as per nature of project.**



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## Guide Consent Form Minor Project Allotment

### I. Project Details

Following are the proposed details of the project:

S. No.	Name of Student(s)	Enrollment No.	Class

Subject Code \_\_\_\_\_ Subject Name \_\_\_\_\_

Title of Project \_\_\_\_\_

Proposed Technology/Technical Specifications \_\_\_\_\_

### II. Consent/Declaration of Guide

I \_\_\_\_\_ working as \_\_\_\_\_

in Department of Information Technology, will supervise the mentioned project work and guide for the entire duration of the project provided the students adhere to the following:

1. Weekly Interaction and reporting of the status of project work to the guide.
2. The project Idea/Title/Technologies cannot be changed without the approval of the guide henceforth.

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Sign of Guide: \_\_\_\_\_



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### Certificate

This is to certify that minor project entitled “**Esports Arena**” is a quality work done by **Mr. Akshat Bahukhandi (00414202018)**, **Mr. Jeevan Thapa (01914202018)**, **Mr. Kartik Gola (02114202018)**, completed under my supervision and guidance in partial fulfillment of the requirement for the award of degree of **Bachelor of Computer Application (BCA)** as a part of the curriculum bearing Course Code **BCA-357** in **Guru Gobind Singh Indraprastha University, New Delhi-110078**.

Countersigned by:

**Dr. Meenakshi Narula**

Head- Department of Information Technology

Place: New Delhi

Date: 28.12.20



**Ms. Snehlata  
(Project Guide)**



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## Certificate

This is to certify that minor project entitled "Go Meal" is a quality work done by **Mr. Abhishek (00121402018), Mr. Aditya Kumar (00221402018)**, completed under my supervision and guidance in partial fulfillment of the requirement for the award of degree of **Bachelor of Computer Application (BCA)** as a part of the curriculum bearing Course Code **BCA-357** in **Guru Gobind Singh Indraprastha University, New Delhi-110078**.

Countersigned by:

**Dr. Meenakshi Narula**

Head- Department of Information Technology

Place: New Delhi

Date: 29.12.20



**Mr. Deepak Sharma**  
**(Project Guide)**