

**Final Year Project Work Guidelines
B.E. (Information Technology), 2019 Course
(With effect from Academic Year 2022- 23)**



**SAVITRIBAIPHULE PUNE
UNIVERSITY PREPARED BY:
B.O.S.-Information Technology, Savitribai Phule Pune
University**

**Hope Foundation's
International Institute of Information Technology,
Pune**

Department of Information Technology

**Final Year Project
Work**

Academic Year: **2022-23**

Project Title	:	
Project Area	:	
Internal Guide	:	



Savitribai Phule Pune University, Pune Final Year Information Technology(2019 Course) 414448: Project Stage I		
Teaching Scheme:	Credit Scheme:	Examination Scheme:
Tutorial(TUT): 02hrs/week	02 Credits	Term Work: 50 Marks
Prerequisite Courses, if any: PBL, Seminar, Basic Knowledge of Latest Technologies in IT.		
Companion Course, if any: NOT APPLICABLE		
Course Objectives: <ol style="list-style-type: none"> 1. To build up their practical experience with implementation and hence develops self-confidence. 2. To generate the opportunities to experience practically the facts learned in various fields together. 3. To improve overall communication skill, Team work and Leadership Qualities, professionalism. 4. To apply the knowledge for solving realistic problems. 5. To evaluate alternative approaches and justify the use of selected tools and methods. 		
Course Outcomes: On completion of the course, students will be able to– CO1. To apply knowledge of mathematics, science, and engineering to formulate the Problem statement. CO2. To design and conduct experiments, as well as to analyze and interpret data. CO3. Understand the professional and ethical responsibility. CO4. To communicate effectively. CO5. Get broad education which is necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. CO6. Recognition of the need for, and ability to engage in life-long learning. CO7. To use the techniques, skills, and modern engineering tools necessary for engineering practices. CO8. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.		
Introductory Information:		

BE Project can be application oriented and/or will be based on some innovative work in recent technologies like IoT, Cloud Computing, Web Technologies, Bio-inspired Algorithms, Artificial Intelligence, Machine Learning, Natural Language Processing, Theoretical Computer Science fundamentals. In Project Phase-I the student will undertake a project over the academic year, which will involve the analysis, design of a system or subsystem in the area identified earlier in the field of Information Technology and Computer Science and Engineering. The project will be undertaken preferably by a group of 3-4 students who will jointly work and implement the project. The group will select a project based on their internship or Guide can suggest based on recent technologies/Industrial Applications.

Guidelines to Faculty and Students:

- 1) The Head of the department / Project coordinator shall constitute a review committee (preferably same committee needs to carry throughout the year) for project group; project guide would be one member of that committee by default.
- 2) For sponsored projects, an employee of the sponsoring organization may be one of the members of the review committee.
- 3) There shall be **TWO** reviews in Project phase-I (in semester-I) by the review committee.
- 4) The Project Review committee will be responsible for evaluating the timely progress of the projects. It is suggested to evaluate the skills learned by the students in their PBL (in their previous years).
- 5) Students should identify project of enough complexity, which has at least 4-5 major functionalities.
- 6) Students should adopt skills learned in Software Engineering/Software Architecture to identify stakeholders, actors, Architectural Styles etc... and write detail problem statements for the system.
- 7) Review committee should finalize the scope of the project.
- 8) If change in project topic is unavoidable, then the students should complete the process of Project approval by submitting synopsis along with the review of important papers which should be approved by review committee.
- 9) Every student of the project group shall make a presentation on the progress made by them before the committee during each review. Each student/group is required to give a presentation as part of review for 10 to 15 minutes followed by a detailed discussion and query session.
- 10) Students need to note down the queries raised during review(s) and comply with the same in the next review session.
- 11) The record of the remarks/suggestions of the review committee (project diary) should be properly maintained and should be made available at the time of university examination.
- 12) Project group needs to present/publish TWO papers (One in each semester, at least one paper should be in **UGC-Care journal**).

<p>a) Paper must be checked for Plagiarism by any open software.</p> <p>b) One paper during first semester which includes Literature Survey and Detailed design components of the Project Statement.</p> <p>c) One paper during second semester which includes Methodologies/Algorithms implemented, Results obtained, Analysis of results and conclusion.</p> <p>13) Project report must also be checked for Plagiarism.</p> <p>14) The examinee will be assessed by a panel of examiners of which one is necessarily an external examiner. The assessment will be broadly based on work under gone, content delivery, presentation skills, documentation, question-answers, and report.</p>
<p>Review1: Synopsis–</p> <p>Points to be covered:</p> <ol style="list-style-type: none"> 1) The precise problem statement/title based on literature survey and feasibility study. 2) Motivation, objectives, and scope of the project. 3) List of required hardware, software, or other equipment for executing the project, test Environment/tools, cost and software measurement/human efforts in hours. 4) System overview-proposed system and expected outcomes. Architecture and initial phase of design (DFD).
<p>Review2: Requirement and Design Specification</p> <p>Points to be covered:</p> <ol style="list-style-type: none"> 1) User and System Requirements. 2) Functional and Non-functional Requirements. 3) SRS Document, Writing structures SRS as per Problem Statement. 4) Requirement Analysis/Models. 5) UML/ER Diagrams. 6) Detail architecture/System design/Algorithms with analysis/Methods/ Techniques. 7) Need to discuss Design models and Component level designs. 8) Detailed Design (DFD levels as per the problem statement). 9) At least 30-40% coding documentation with at least 3 to 4 working modules. 10) Identification of tests to be essential and appropriate (to be implemented later). 11) Project plan.
<p>Evaluation Criteria:</p> <p>Following criteria and weightage is suggested for evaluation of Project-Phase I Term Work.</p> <ol style="list-style-type: none"> 1) Originality of Problem Statement: 10% (05 Marks) 2) Depth of Understanding the Problem Statement: 10% (05 Marks) 3) Concrete Literature Survey with identified gaps in all referred papers: 10% (05 Marks) 4) Design and Analysis of Algorithm/Model/Architecture/System: 40% (20 Marks) 5) Representation of results using suitable tools like tabulation, graph etc: 10% (05 Marks) 6) Presentation Skill: 10% (05 Marks) 7) Report preparation and Paper publication: 10% (05Marks)

Project report contains the details as Follows:

Project report must have:

- i. Certificate from the institute
- ii. Certificate sponsoring organization (If any)
- iii. Acknowledgement
- iv. Abstract
- v. Contents
- vi. List of Abbreviations (As applicable)
- vii. List of Figures (As applicable)
- viii. List of Graphs (As applicable)
- ix. List of Tables (As applicable)
 1. Introduction and aims/motivation and objectives.
 2. Literature Survey (with proper citation).
 3. Problem Statement/definition.
 4. Software Requirement Specification (In SRS Documentation only).
 5. Flowchart
 6. Project Requirement specification.
 7. Proposed system Architecture.
 8. High level design of the project (DFD, UML, ER Diagrams).
 9. System implementation-code documentation: Algorithm style, Description of detailed methodologies, protocols used etc... as applicable.
 10. Test cases.
 11. Proposed GUI/Working modules/Experimental Results (Module wise if available) in suitable format.
 12. Project Plan.
 13. Conclusions.
 14. Bibliography in IEEE format.

Appendices:

- A. Plagiarism Report of Paper and Project report from any open-source tool.
- B. Base Paper(s) [If any].
- C. Tools used/Hardware Components specifications [If any].
- D. Published Papers and Certificates.

Use appropriate plagiarism tools, reference managers, Latex for efficient and effective project writing.

Reference Books:

1. UML2 Bible by Tom Pender, Wiley India Pvt. Limited 2011
2. Applying UML and Patterns Second Edition by Craig Larman, Pearson Education
3. UML2 and the Unified Process, Second Edition, JIM Arlow, Ila Neustadt, Pearson
4. Design Patterns: Elements of Reusable Object-Oriented Software, Erich Gamma, Pearson
5. Design Patterns in Java Second Edition by Steven John Metsker, Pearson

All the assignments should be conducted on Latest version of Open-Source Operating Systems, tools and Multi-core CPU supporting Virtualization and Multi-Threading



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Department of Information Technology

INDEX

- 1. Undertaking by Students.**
- 2. Project Schedule**
- 3. Group Details**
- 4. Abstract Format**
- 5. Monthly Planning Sheet (Semester-I)**
- 6. Project Review-I Check List**
- 7. Performance Evaluation Sheet-I (Review- I)**
- 8. Project Review-II Checklist**
- 9. Performance Evaluation Sheet- II (Review- II)**
- 10. Monthly Planning Sheet (Semester- II)**
- 11. Project Review-III Checklist**
- 12. Performance Evaluation Sheet- III (Review- III)**
- 13. Project Review- IV Checklist**
- 14. Performance Evaluation Sheet- IV (Review- IV)**
- 15. Evaluation Summary Sheet (Review-I to IV)**
- 16. Project Report Format**
- 17. Participation in Project Competition.**
- 18. Paper Publications. (If any)**
- 19. Examination Evaluation Guidelines**
- 20. Examination Evaluation Sheet (Semester-I)**
- 21. Examination Evaluation Sheet (Semester-II)**

SEMESTER – I



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UNDERTAKING BY STUDENTS

We, the students of B.E. I.T. are hereby assure that we will follow all the rules and regulations of SPPU related to the project work for the academic year 2022-23. The Project entitled will be fully designed and developed by us and no part of the project/full project will be designed and developed by any external entity or copied from some external resources. We are fully aware that copying or taking help of any external agency in the development of our project is totally unethical and illegal. The examiners have/University has full rights to initiate an action against us as per University norms if involved in unfair/illegal/unethical work.

Sr.No.	Roll No.	Name of Student	Signature
1			
2			
3			
4			



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(With effect from Academic Year 2022-23)

Rules & Regulations

1. All students must enter the correct information in the work book.
2. All the entries in the project workbook must be verified by the concerned project guide.
3. Students must report to their respective guide on project day as per the time table.
4. Activities of the project work should be completed as per the project plan only.
5. Project group must submit soft copies of Project Abstract, Project Report and Publications in PDF format only.
6. Project group members submit **two** hard copies of Project Report in the format provided by the department.
7. Project work books must be brought at the time of Project Reviews & Project Examination.
8. Any changes, if any, must be counter signed by the concerned project guide.
9. For project reviews and project examination, all students must report 15 minutes before the scheduled time.
10. For any query, a concerned guide should be consulted.



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Department of Information Technology

(Academic Year **2022-23**)

PROJECT WORK SCHEDULE

Sr. No.	Activity Scheduled	Date
SEMESTER - I		
1.	Making group and Identification of domain	Week 1
2.	Registration of Project Groups	Week 2
3.	Project Topic Submission	Week 3
4.	Allocation of Guide	Week 4
5.	Submission of Abstract to Project Guide and Project Coordinator in the Prescribed Format	Week 4
6.	Project Review-I	Week 6
7.	Project Review-II	Week 10
8.	Verification of Project Work book By Internal Guide (before submission of Preliminary Project Report)	Week 11
9	Submission of Final Preliminary Project Report in Prescribed Format	Week 12
	External Term-work Evaluation (After Theory Examination)	As per Univ. Schedule
SEMESTER- II		
1.	Project Review-III	Week6
2.	Project Review-IV	Week10
3.	Submission of Draft Copy of Final Project Report to Guide	Week11
4.	Verification of Project Book By Internal Guide (before submission of Final Project Report)	Week11
5.	Submission of Final Project Report in Prescribed Format	Week12
	Final Project Examination(After Theory Examination)	As per Univ. Schedule



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Department of Information Technology

(Academic Year 2022-23)

Project Group No.: BI - 13

Project Title: BlockVote: A Privacy Centric Decentralized Application

GROUP DETAILS:

Sr. No.	Roll No.	Name of the Student	Mobile No.	Email Id	T.E. Result
1				asmitamohite2002@gmail.com	
2				akruiyhou@gmail.com	
3				karalekedar@gmail.com	
4				manavkhakhi@gmail.com	

Name & Signature
Internal Guide

Mobile No:

Email Id:

Name & Signature
External guide (if any)

Mobile No:

Email Id:

Company Name:

Name & Signature
HoD-IT

Mobile No:

Email Id:



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Project Title:			
Project Group No.:		Guide Name :	
GROUP MEMBERS:			
Roll No./ Seat No.	Name of Student	Project Area	Project Platform
		Blockchain	

Abstract

Being the largest democracy in the world, India has an abundance of different cultures , religions, languages and beliefs. But the unity in diversity comes with its own costs. It is a challenge to conduct nationwide elections for such a big and diverse population. The recent upsurge in mistrust towards electronic voting machines and trends like voter apathy where the number of people showing up to cast their vote dwindle each year are adding to the challenge of conducting fair elections. EVM machines lack auditing capabilities and require sealing, police protection and large logistic efforts to make sure they are not tampered with. This huge logistical and security overhead adds to cost and variables to the already delicate electoral system.

A growing list of records that are linked using the cryptographic hash of previous blocks, is called blockchain. Blockchain technology allows data to be captured real time in a secure and encrypted manner and ensures that the data is tamperproof. Bitcoin and other crypto-currencies are the most common examples of blockchain

behavior. Hyperledger technology can be used to deploy a platform that provides maximum transparency and reliability to build a trustful relationship between voters and election authorities. The platform provides a framework that can be implemented to conduct voting activity digitally through blockchain.

A voter will receive a single voting token which can be used to vote, and will be transferred from their wallet to that of the candidate and cannot participate in the process again as the token has been utilized.. Smart contracts are used to provide a secure connection between the user and the network while executing a transaction in the chain.

By providing an irrefutable and easy way to vote from one's phone or pc, the number of people voting will likely rise. Furthermore it will decrease the logistics and security needed for various polling booths as the records will be stored on the blockchain in real time unlike traditional methods that need to be sealed and transported to secure locations for the counting of votes.

Keywords:

- 1) Hyperledger
- 2) Blockchain
- 3) Electoral System
- 4) Tamperproof

References:

- [1] MUHAMMAD SHOAIB FAROOQ, USMAN IFTIKHAR, AND ADEL KHELIFI, “A Framework to Make Voting System Transparent Using Blockchain Technology,” date of current version June 10, 2022. Digital Object Identifier 10.1109/ACCESS.2022.3180168
- [2] S. S. Hossain, S. A. Arani, M. T. Rahman, T. Bhuiyan, D. Alam, and M. Zaman, “E-voting system using blockchain technology,” in Proc. 2nd Int. Conf. Blockchain Technol. Appl., Dec. 2019, pp. 113–117, doi: 10.1145/3376044.3376062.
- [3] B. Shahzad and J. Crowcroft, “Trustworthy electronic voting using adjusted blockchain technology,” IEEE Access, vol. 7, pp. 24477–24488, 2019, doi: 10.1109/ACCESS.2019.2895670.
- [4] F. P. Hjálmarsson, G. K. Hreiðarsson, M. Hamdaqa, and G. Hjálmtýsson, “Blockchain-based E-Voting system,” in Proc. IEEE 11th Int. Conf. Cloud Comput. (CLOUD), Jul. 2018, pp. 983–986.



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Semester-I

Weekly Planning Sheet

Academic Year:

Week No.	Activity Planned	Activity Completed Status	Student Signature	Guide Signature
Week1				
Week2				
Week3				
Week4				
Week5				
Week6				
Week7				
Week8				
Week9				
Week10				
Week11				
Week12				

Project Coordinator

Internal Guide



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PROJECT REVIEW-I

(Academic Year: **2022-23**)

Group Id:		Date:		
Project Title:				
Sr. No.	Roll No.	Student Name	Contact Details	Internal/ External Guide Details
1				Guide Name:
2				Mentor Name, email & Mobile No.:
3				
4				

REVIEW-1 CHECKLIST: FINALIZATION OF SCOPE

25 Marks

PROJECT STATEMENT	
1. Is the statement short and concise (10-20 words maximum)?	Y/N/NA/NC*
2. Does the statement give clear indication about what your project will accomplish?	Y/N/NA/NC*
3. Can a person who is not familiar with the project understand the scope of the project by reading the Project Problem Statement?	Y/N/NA/NC*
REQUIREMENT: SCOPE AND OBJECTIVES	
Does the Scope and Objectives establish the "context" for the proposed project by referencing to the following elements:	
a. Are all aspects of the requirements document (i.e., Functional Spec.) addressed in the design?	Y/N/NA/NC*
b. Is the architecture/block diagram well defined and understood?	Y/N/NA/NC*
c. The project's objective of study (what product, process, resource etc.) is being addressed?	Y/N/NA/NC*
d. The project's purpose: is the purpose of the project addressed properly (why it's being pursued: to evaluate, reduce, increase, etc.)?	Y/N/NA/NC*
e. The project's viewpoint: Is the project's view point understood? (Who is the project's end user)?	Y/N/NA/NC*

f. Is the project goal statement in alignment with the sponsoring organization's business goals and mission?	Y/N/NA/NC*
ANALYSIS	
1. Is information domain analysis complete, consistent and accurate?	Y/N/NA/NC*
2. Is the problem statement categorized in the identified area and targeted towards a specific area there?	Y/N/NA/NC*
3. Are external and internal interfaces properly defined?	Y/N/NA/NC*
4. Does the Use Case Model properly reflect the actors and their roles and responsibilities?	Y/N/NA/NC*
5. Are all requirements traceable to system level?	Y/N/NA/NC*
6. Is a similar type of methodology/ model used for existing work?	Y/N/NA/NC*
7. Are requirements consistent with schedule, resources and budget?	Y/N/NA/NC*



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**PROJECT REVIEW-I
(Academic Year: 2022-23)**

STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance				
Particular s	Marks(25M)			
	Group Members			
	1	2	3	4
1.Understanding background and Topic (2M)				
2.Specifies Project Scope and Objective(2M)				
3.Literature Survey(5M)				
4.Project Planning(4M)				
5.Contribution of the Student(4M)				
6. Presentation Skills (4M)				
7.Question and Answer(4M)				
Total(25M)				
Comments (if any)				

#To be filled by internal guide & reviewer(s) only.

*Whether the presentation/evaluation is as per the schedule. : YES/NO (If NO mention the reasons for the same.)

Review– I: Deliverables

- Problem Statement/Title
- Purpose, Scope, Objectives
- Abstract (System Overview)
- Introduction (Architecture and High-level Design)
- Literature Survey
- References
- Project Plan1.0

Name & Signature of evaluation committee-

Name of Reviewer 1
Guide

Name of Reviewer 2

Name of Internal



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PROJECT REVIEW-II
(Academic Year: 2022-23)

Group Id:				Date:	
Project Title:					
Sr. No.	Roll No.	Student Name	Contact Details	Internal/ External Guide Details	
1				Guide Name:	
2				Mentor Name, email & Mobile No.:	
3					
4					

REVIEW – II CHECKLIST : DESIGN

25 Marks

DESIGN	
1. Are requirements reflected in the system architecture?	Y/N/NA/NC*
2. Does the design support both project (product) and project goals?	Y/N/NA/NC*
3. Does the design address all the issues from the requirements?	Y/N/NA/NC*
4. Is effective modularity achieved and modules are functionally independent?	Y/N/NA/NC*
5. Are structural diagrams (Class, Object, etc.) well defined and understood?	Y/N/NA/NC*
6. Are all class associations clearly defined and understood? (Is it clear which classes provide which services)?	Y/N/NA/NC*
7. Are the classes in the class diagram clear? (What do they represent in the architecture design document?)	Y/N/NA/NC*
8. Is inheritance appropriately used?	Y/N/NA/NC*
9. Are the multiplicities in the use case diagram depicted in the class diagram?	Y/N/NA/NC*
10. Are behavioral diagrams (use case, sequence, activity, etc.) well defined and understood?	Y/N/NA/NC*
11. Is aggregation/containment (if used) clearly defined and understood?	Y/N/NA/NC*
12. Does each case have clearly defined actors and input/output?	Y/N/NA/NC*
13. Is all concurrent processing (if used) clearly understood and reflected in the sequence diagrams?	Y/N/NA/NC*
14. Are all objects used in sequence diagrams?	Y/N/NA/NC*
15. Does the sequence diagram match the class diagram?	Y/N/NA/NC*
16. Do the symbols used in all diagrams correspond to UML standards?	Y/N/NA/NC*



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PROJECT REVIEW-II

(Academic Year: 2022-23)

STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance				
Particular s	Marks(25M)			
	Group Members			
	1	2	3	4
1. System Architecture & Literature Survey(Review-I)	Y/N	Y/N	Y/N	Y/N
2. Project Design (5M)				
3. Methodology/Algorithms and Project Features(5M)				
4. Project Planning(2M)				
5. Basic details of Implementation(5M)				
6. Presentation Skills(4M)				
7. Question and Answer(4M)				
8. Summarization of ultimate findings of the Project	Y/N	Y/N	Y/N	Y/N
Total(25M)				
Comments (if any)				

#To be filled by internal guide & reviewer(s) only.

*Whether the presentation/evaluation is as per the schedule. : YES/NO (If NO mention the reasons for the same.)

Review– II: Deliverables

- Problem Statement/ Title
- Abstract
- Introduction
- Literature Survey (comparison with existing system)
- Methodology
- Design/algorithms/techniques used

Name & Signature of evaluation committee-

Name of Reviewer1

Name of Reviewer2

Name of Internal Guide

SEMESTER – II



**Hope Foundation's
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Department of Information Technology

Semester-II

Weekly Planning Sheet

Academic Year:

Week No.	Activity Planned	Activity Completed Status	Student Signature	Guide Signature
Week1				
Week2				
Week3				
Week4				
Week5				
Week6				
Week7				
Week8				
Week9				
Week10				
Week11				
Week12				

Project Coordinator

Internal Guide



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PROJECT REVIEW-III

(Academic Year: **2022-23**)

Group Id:				Date:	
Project Title:					
Sr. No.	Roll No.	Student Name	Contact Details	Internal/ External Guide Details	
1				Guide Name:	
2				Mentor Name, email & Mobile No.:	
3					
4					

REVIEW – III : IMPLEMENTATION

25 Marks

IMPLEMENTATION (SOURCE CODE REVIEW CHECK LIST)	
a. Structure	
1. Does the code completely and correctly implement the design?	Y/N/NA/NC*
2. Does the code comply with the Coding Standards?	Y/N/NA/NC*
3. Is the code well-structured, consistent in style, and consistently formatted?	Y/N/NA/NC*
4. Does the implementation match the design?	Y/N/NA/NC*
5. Are all functions in the design coded?	Y/N/NA/NC*
b. Documentation	
1. Is the code clearly and adequately documented?	Y/N/NA/NC*
2. Are all comments consistent with the code?	Y/N/NA/NC*



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PROJECT REVIEW-III

(Academic Year: 2022-23)

STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance				
Particular s	Marks(25M)			
	Group Members			
	1	2	3	4
1. Architecture/System Design-(if any modification)	Y/N	Y/N	Y/N	Y/N
2. 50% Implementation (10 M)				
3. Partial results obtained (7 M)				
4. Presentation skills (4 M)				
5. Question and Answer (4M)				
6. Summarize the methodologies /Algorithms implemented/to be implemented	Y/N	Y/N	Y/N	Y/N
Total(25M)				
Comments (if any)				

#To be filled by internal guide & reviewer(s) only.

*Whether the presentation/evaluation is as per the schedule. : YES/NO (If NO mention the reasons for the same.)

Review- III: Deliverables

- Detailed Design (if any deviation)
- 50% of code implementation
- Some Experimental Results
- Project Plan3.0

Name & Signature of evaluation committee–

Name of Reviewer1

Name of Reviewer2

Name of Internal Guide



**Hope Foundation's
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PROJECT REVIEW-IV

(Academic Year: 2022-23)

Group Id:				Date:
Project Title:				
Sr. No.	Roll No.	Student Name	Contact Details	Internal/ External Guide Details
1				Guide Name:
2				Mentor Name, email & Mobile No.:
3				
4				

REVIEW – IV : 25 Marks

IMPLEMENTATION AND TESTING	
1. Is every feature tested?	Y/N/NA/NC*
2. Are all functions, user screens and navigation tested? (e.g. module, object, integration, usability, system)	Y/N/NA/NC*
3. Are test cases designed? (Manual and automated)	Y/N/NA/NC*
4. Is a testing tool used?	Y/N/NA/NC*
5. Is result analysis done properly, and appropriate conclusions drawn?	Y/N/NA/NC*
6. Implementation status (code completion in percentage)	
7. Final thesis status (in percentage)	

FILL IN BRIEF

Results are known or not? :

Quality of Presentation :

List the chapter numbers of final report :

Project Completion Date :

Final Report Submission Date :

General

Is the LOG BOOK of the project up-to-date and signed?

- NC–Not Clear
- NA –Not Applicable



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PROJECT REVIEW-IV

(Academic Year: 2022-23)
STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance				
Particular s	Marks(25M)			
	Group Members			
	1	2	3	4
1. Implementation (100%) (5M)				
2. Testing, Results and Performance Evaluation(5 M)				
3. Final Project Report(5M)				
4. Publications(2M)				
5. Presentation skills(4M)				
6. Question and Answer(4M)				
Total(25M)				
Comments (if any)				

#To be filled by internal guide & reviewer(s) only.

*Whether the presentation/evaluation is as per the schedule. : YES/NO (If NO mention the reasons for the same.)

Review– IV: Deliverables

- Detailed Design
- 100% code implementation
- Experimental Results
- Performance Evaluation
- Test Cases
- Result Analysis and Conclusion
- Final Thesis
- ProjectPlan4.0

Name & Signature of evaluation committee-

Name of Reviewer1

Name of Reviewer2

Name of Internal Guide



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PROJECT REVIEW– I to IV

(Academic Year: 2022-23)

Summary of Project Work Evaluation Sheet

Sr. No.	Roll No./ Exam. No.	Name of the Student	I	II	III	IV	Total	Student Signature
1								
2								
3								
4								
Overall Remarks or Comments (if any)								

Name of Reviewer1

Name of Reviewer2

Name of Internal Guide



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Participation in Project Competition/Event

(Academic Year: 2022-23)

Sr. No.	Name & Place of Project Competition/Exhibition	Date	Certificate /Prizes won (if any)

Paper Publication /Presentation

Sr. No.	Name of the organizing society	Date	Certificate /Prizes Won (if any)

***Photocopy of the certificate must be attached to this booklet.**

Project Coordinator

Internal Guide

Examination Evaluation Guidelines

Along with Internal Examination, the External Examiner should see their Partial or Final project reports, project log book and the presentation of each group along with live project demonstration (applicable in second semester).

There is a possibility that the marks obtained in B.E. Projects by various groups across the university may not be uniform because of the involvement of many examiners. It is expected that the examiners should evaluate the students rigorously. Both the examiners are supposed to evaluate each student / group based on some or all the following points. Also, the evaluation of the examiners must be fair enough so that the student gets appropriate credit/marks for his/her efforts. Marks breakup is enclosed in the attached excel sheet

The following are the guidelines for the presentation and should be shared with the students.

1. Purpose or Significance or Motivation of Study/ topic identified
2. Objectives of Problem Statement
3. Technical relevance and originality of problem
4. Literature reviewed followed by sufficient requirements analysis
5. Design and coding effort along with best practices followed
6. Analysis, interpretation, implementation, and validity of results
7. Extent of technical knowledge and coding skill gained
8. Use of project management techniques and maintaining project logbooks.
9. Use of modern CASE tools and techniques in development (if required for the problem)
10. Teamwork and collaboration
11. Use of professional ethics and social relevance
12. Presentation Skills
13. Answers to questions-analysis, depth of understanding of problem/conclusions/inference
14. Project Report /Thesis Contents Quality

NOTE:

1. The project groups obtaining more than 90% of marks in the project exam may be moderated by the committee appointed by the University of Pune.
2. The evaluation sheet enclosed should be duly filled according to project group and sent along with the chairman copy of the mark list
3. The project guide should initiate the presentation in the project examination (SEM-I and SEM-II) to create a context and to understand the motivation of the project topic.

SEMESTER - I

External Examination Evaluation Sheet

Program of Term-work Examination BEIT- Nov. /Dec. (2022-23)

Sr. No.	Exam Seat Number	Originality of Problem Statement Attainment of Objectives	Analysis & Design	Presentation Skills	Answers to questions- analysis, depth of understanding the problem/ conclusions/ inference	Content Quality of Partial Project Report	Total (out of 50)
Marks		5	20	5	10	10	TW
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Signature
Internal Examiner

Signature
External Examiner

SEMESTER - II

External Examination Evaluation Sheet

Program of Term-work Examination BEIT- April/May (2022-23)

Sr. No.	Exam Seat Number	Originality of Problem Statement Attainment of Objectives	Analysis & Design	Presentation Skills	Answers to questions- analysis, depth of understanding the problem/ conclusions/ inference	Content Quality of Partial Project Report	Total (outof50)
Marks->		5	20	5	10	10	TW
1							
2							
3							
4							
5							
6							
7							
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Signature
Internal Examiner

Signature
External Examiner

PROJECT REPORT FORMAT

Instructions:

It is important that the procedures listed below be carefully followed.

1. Prepare 2+No. of project members' copies of your manuscript (1-CD for college).
2. Limit your project report to preferably 60-70 manuscript pages.
3. The footer should be included as "College Name – INFORMATION TECHNOLOGY – <<Academic Year>>" while the header should contain "NAME OF PROJECT". Both header and footer should be TIMES NEW ROMAN 10pt and centrally aligned.
4. Print the manuscript using letter quality computer printing. The main part of manuscript should be TIMES ROMAN 12pt and justified. Use 1.5 line spacing and justify aligned.
5. Use paper size 8.5"X 11" or A-4(210X197mm). Please follow following margins

Margin Location	Paper A4(210X197mm)
Top	25.4mm
Left	37 mm
Bottom	32 mm
Right	25.4mm

6. All paragraphs will be 1.5 lines spaced and a double space between each paragraph. Each paragraph will begin with a five-space indentation.
7. Chapter titles should be bold with 14pt typed in all capital letters and should be aligned at the center of the page. Section heading should be aligned at the left with 12pt and bold and capitalized. Section sub heading should be aligned at the left with title case (the first letter of each word is to be capitalized). Leave two spaces between section headings and 1 space between two section sub headings.
8. Illustrations (Charts, drawings photographs, figures) are to be in the text. Use only illustrations really pertinent to the text. Illustrations must be sharp, clear, black and white. Illustrations downloaded from internet are not acceptable.
 - a. Illustrations should not be more than two per page.
One could be ideal
 - b. Figure No. and title at bottom with 12pt.
 - c. Legends below the title in 10pt.
 - d. Proper margin in all sides.
 - e. Illustrations as far as possible should not be Xeroxed (photocopy)
9. Photographs if any should be of glossy prints.
10. Please use SI system for units. If student would like to add the equivalent in inch-pound (IP) units, they must be stated in parentheses after the SI units. In case the final result comes out in any other units (say due to empirical formula etc.) convert the unit to SI unit.
11. Please number the pages on the front side, centrally below the footer.
12. References should be either in order as they appear in the paper or in alphabetical order by last name of first author.
13. Symbols and notations if any should be included in nomenclature section only.
14. Following will be the order of the report.
 - a. Cover page and front page as per specimen on separate sheet.
 - b. Certificate from institute as per specimen on separate sheet.
 - c. Certificate from industry on separate sheet (as case may be).
 - d. Acknowledgement.
 - e. List of figures.
 - f. List of Tables
 - g. Nomenclature

- h. Contents
 - i. Abstract (A brief abstract of the report not more than 150 words. The heading of abstract i.e. word
“Abstract” should be bold, times roman 12pt and should be typed at the center. The contents of abstract should be typed on new line without space between heading and contents.
 - j. Chapter1: Introduction
 - k. Other chapters starting on new page. l. References (In IEEE format)
 - m. Appendices if any. Appendix should contain routine calculation, standard data, derivation and relevant cyber laws.
15. All chapters, section heading and subheadings should be numbered. For chapters use numbers 1, 2,..... And for sub headings 1.1, 1.2 etc. and section subheadings 2.1.1, 2.2.2, 2.3.1etc.
16. References should be given in the body of the text and well spread. No verbatim copy or excessive text from only one or two reference should be used. If figures and tables are taken from any reference then indicate its source. Please follow following procedure for references.

Reference books

Collier.G.j. and ThomeJ.R, Convective boiling and condensation, 3rded, OxfordUniversity Press, UK. 1996, pp.110- 112

Papers from Journal or transactions

JUNG.D.S. and Raderamcher R. “Transport properties and surface tension of pure and mixed refrigerants”, A share Trans, 1991, 97(1), p. 90-98

Papers from conference proceedings

ColbournD.RandRitterT.J. “Quantitative assessment of flammable refrigerants in room air conditioners”, proceedings of the sixteenth International compressor Engineering Conference and Ninth International Refrigeration and Air conditioning Conference, Putdu University, West Lafayette Indiana, USA,2002

Reports Hand books etc.

United Nations Environmental Programme, Report of the refrigeration, Air Conditioning and heat pumps, Technical option Committee, 2002Assessment, 2002 ASHRAE hand book: Refrigeration, 1994 (chapter44)

Patent

Patentno.Country (In parenthesis), date of application, title, year.If taken from “Abstract” give cross reference as CF, CA,.....

Internet

[WWW.\(Site\)](#)

SPECIMEN PROJECT REPORT FORMAT

A) Cover and front page should be CENTER ALIGNED

2-Blankspaces

A PROJECT REPORT ON *(12/bold/uppercase)*
(Two blank spaces)

<<PROJECTTITLE>> *(16/bold/uppercase)*
(Two blank spaces)

SUBMITTED TO THE SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE *(12/uppercase)*
IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE *(12/uppercase)*
(One blank space)

OF *(12/uppercase)*
(Two blank spaces)

BACHELOR OF ENGINEERING

IN

INFORMATION TECHNOLOGY *(16/bold/uppercase)*
(Two blank spaces)

BY *(14/bold/uppercase)*
(Two blank spaces)

<<Name of Student 1>><<ExaminationSeatNo.:1>> *(14/bold/uppercase)*
<<Name of Student 2>><<ExaminationSeatNo.:2>>

(Two blank spaces)

UNDER THE GUIDANCE
OF *(14/bold/uppercase)*

<<Guide Name>> *(14/bold/uppercase)*

<<College Logo>>

DEPARTMENT OF
INFORMATION
TECHNOLOGY

<<COLLEGE NAME>> *(12/bold/uppercase)*

<<Address>> *(12/bold/uppercase)*

<<Academic Year>> *(12/bold/uppercase)*

B) CERTIFICATE
(Six blank space)

CERTIFICATE (16/bold/uppercase)
(Three blank space)

This is to certify that the project report entitled(12/sentence case)
(Two blank space)

<<PROJECT TITLE>> (12/bold/uppercase)
(Two blank space)

Submitted by (one line blank space)

<<Name of Student 1>><<ExaminationSeatNo.1>>(12/title case)
<<Name of Student 2>><<ExaminationSeatNo.2>>

(Three blank space)

Is a bonafide work carried out by them under the supervision of Prof. _____
and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune
University for the award of the Degree of Bachelor of Engineering (Information Technology)
(12/sentence case)
(Two blank space)

This project report has not been earlier submitted to any other Institute or University for the award
of any degree or diploma. (12/sentence case)

<<Name>><<Name>>

Internal Guide
Department of Information Technology

Head of Department
Department of Information Technology

<<Name>><<Name>>

External Examiner

Principal

Date:

<<College Name>>

Place:

Date:

C) CONTENTS

(Four blank space)

CONTENTS

(14/bold/uppercase)

CERTIFICATE	I	<i>(12/bold/uppercase)</i>
CERTIFICATEFROMINDUSTRY(12/bold/uppercase)	II	
ACKNOWLEDGEMENT	III	<i>(12/bold/uppercase)</i>
LISTOF FIGURES	IV	<i>(12/bold/uppercase)</i>
LISTOFTABLES	V	<i>(12/bold/uppercase)</i>
NOMENCLATURE	VI	<i>(12/bold/uppercase)</i>

CHAPTER TITLE PAGE NO.

(14/bold/uppercase)

1.	INTRODUCTION	<i>(12/bold/uppercase)</i>
1.1	BACKGROUND	
1.2	RELEVANCE	
1.3	PROJECTUNDERTAKEN	
1.4	ORGANIZATIONOFPROJECTREPORT	
2.	BACKGROUND	<i>(12/bold/uppercase)</i>
2.1	-----	
2.2	-----	
2.2.1	-----	
3.	SPECIFICATION	
<i>(12/bold/uppercase)</i>		
3.1	-----	
3.1.1	-----	
4.	DESIGN	
<i>(12/bold/uppercase)</i>		
4.1	-----	
4.1.1	-----	
5.	IMPLEMENTATION	
<i>(12/bold/uppercase)</i>		
5.1	-----	
5.1.1	-----	
6.	RESULTSAND EVALUATION	
<i>(12/bold/uppercase)</i>		
6.1	-----	
6.1.1	-----	
7.	CONCLUSIONS AND FUTUREWORK	
<i>(12/bold/uppercase)</i>		

REFERENCES

(12/bold/uppercase)

Appendix (12/bold/uppercase)	A
Appendix (12/bold/uppercase)	B

Partial /Final Report Contents

Abstract (Report Abstract)

An abstract is a brief summary or condensed version of the entire project, usually between 100 and 250 words long and written in the past tense. It includes the key points of the introduction, methods, results and conclusions of your project. The abstract takes the form of a paragraph, usually with 5-10 sentences. It should not include citations; use the background and conclusions to help to frame the context of your topic. Include keywords (the words that will help readers to search your report from repository or online) after abstract.

Introduction

Introduction should help to understand three key questions to the reader: Why is this important problem? What has been done before? How does your topic (problem) bring significant new understanding to the respective field? It should be written in present tense and should include the following points:

- i. Outline the problem you are working on, why is it interesting, important and what are the challenges?
- ii. List your aims and goals. An aim is something you intend to achieve (e.g., learn a new programming language and apply it in solving the problem), while a goal is something specific you expect to deliver (e.g., a working application with a particular set of features)
- iii. Give an overview of how you have carried out the project (i.e. software development model)
- iv. A brief overview of the rest of the chapters in the report (a guide to the reader of the overall structure of the report).
- v. This chapter is relatively short (2-4 pages) and must give the reader very clear understanding of what the project is about and what your goals are

Background and Literature review

This chapter should cover background information, related work, research done and tools or software used in the project.

- i. Provide necessary framework and background information to describe how your project relates to what is already known or available.
- ii. A survey of existing solutions, programs or applications similar to your project (if necessary), and how your project is different than existing one
- iii. A description of the project work carried out to learn about methodology used for investigation of the problem.
- iv. Form of the project work will vary widely depending on the kind of project. Outline and key sources of information you are using (Papers, books, websites, etc). State how each source is related to your work.

- v. Introduce the software, programming languages, library code, frameworks and other tools that you have used. Discuss choices and make clear which you made use of and why.

Requirements and Analysis

- i. Give the detailed problem statement. This elaborates on what you may have included in the introduction chapter and represents the starting point from which requirements were derived.

Problem Definition: Define/formulate the problem clearly and concisely of your project work. Provide details of the overall problem and then divide the problem into module(s).

- ii. **Requirements Specification:** A structured list of requirements. The requirement specifications determine specific feature expectations, resolution of conflict or ambiguity in requirements as demanded by the various users or groups of users and documentation of all aspects of the project development process from start to finish. Here you should define the requirements of the system, Independent of how these requirements will be accomplished and identify the operation and problems of the existing system.
- iii. Description of Use cases/documentation (list of use case titles, with the full use cases appearing in the appendix).
- iv. **Software and Hardware Requirements:** Define the details of all the software and hardware needed for the development and implementation of your project.

Design

- i. Start with the architecture of your project and describe all components that makes up the system
- ii. You can use necessary DFDs and UML diagrams with proper explanation of your project design
- iii. The structure and contents of this chapter will vary according to the nature of your project, hence above mentioned list of requirements is only representative

Implementation

This chapter is about the realization of the concepts and ideas developed earlier. You can describe the methodology (problem formulation and processes used to solve the problem) you have identified for the development of your system/application (Literature review will help you to identify/choose methodology). It can also describe any problems that may have arisen during implementation and how you dealt with them. It should include the details regarding all modules of the project and description of each module. It may be better to use pseudo-code rather than actual code, when describing an algorithm. Describe how a particular algorithm is implemented or how an interesting programming problem was solved.

Results and Evaluation

In this chapter, you should describe to what extent you achieved your goals and how the system works as intended (or not, as the case maybe). Include comprehensible summaries of the results of all critical tests that were carried out.

- i. Describe experimental setup.
- ii. Describe your testing strategy (unit, functional, acceptance testing and how they are carried out).
How were test cases selected?
- iii. Examples of specific tests and how they were carried out (e.g., using mock objects to break dependencies). Focus on the interesting test cases.
- iv. A summary of the test results and what coverage was achieved. The detailed test report(s) should appear in the appendix.

Conclusion

Demonstrate that you solved the problem or made significant improvement in the existing system/application. You can use illustrations such as tables, figures, graphs etc to support the conclusions.

- i. Summarize what your project has achieved. Address each objective decided in the introduction.
- ii. A critical evaluation of the results of the project (e.g., how well were the objectives met, is the application fit for purpose, has good design and implementation practice been followed, was the right implementation technology chosen and soon).
- iii. Results should be clear and concise.
- iv. State why your solution offers a new/improved solution.
- v. Acknowledge any limitations.

References

- i. List of references.
- ii. Bibliography: This list all the sources of information that you made use of during the project but are not referenced in the text. The items in the list must be relevant to your project, so don't just list everything you may have looked at or read.

