



**Major Project
On
<project name>**



Where Success is a Tradition

A Major Project Report Submitted to SAGE University, Indore

**Towards Partial fulfilment for the award of
Bachelor of Computer Application (BCA) degree**

Guided by

Prof. <Guide name>

Submitted by

<Student name>

<Enrollment number>

Institute of Computer Application

SAGE University, Indore

www.sageuniversity

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Approval Sheet

The project entitled "**<PROJECT NAME>**" submitted by **<STUDENT NAME>** approved as partial fulfilment for the award of the **BACHELOR OF COMPUTER APPLICATION (BCA)** by SAGE University, Indore.

Internal Examiner

External Examiner

Date:

Date:



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CERTIFICATE

This is to certify that the project work entitled “<Project Title>” has been carried out by <student name> student of **BACHELOR OF COMPUTER APPLICATION VI Semester** under my supervision and guidance. He/She have submitted this project report towards partial fulfilment for the award of the **Bachelor of Computer Application** by **SAGE University, Indore**.

<Academic Coordinator Name>

Academic Coordinator

<Guide Name>

(Guide)

<HOD Name>

(HOD)

<HOI Name>

(HOI)



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RECOMMENDATION

The project entitled “<PROJECT NAME>” submitted by <student name> is a satisfactory account of the bona fide work done under my supervision is recommended towards partial fulfilment for the award of the **Bachelor of Computer Application** by SAGE University, Indore.

Date:

<HOD Name>

(HOD)

<guide name>

(Guide)



<HOI Name>

(HOI)



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ACKNOWLEDGEMENT

First and foremost, I would like to express my thankfulness towards <Guide name> of INSTITUTE OF COMPUTER APPLICATION for extending all the facilities needed to carry out this work, I take pride in saying that I have successfully completed my project work under his/her able guidance. He/She was a major support to us throughout project, being available at odd hours with his/her ideas, inspiration and encouragement. It is through his/her masterful guidance that I have been able to complete my project work.

I am also thankful to <HOI name>(HOI) and <HOD name>(HOD), for giving their guidance throughout the Project phase.

<student name>
(STUDENT)



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CANDIDATE DECLARATION

I hereby declare that the work which is being presented in this project report entitled “**<project name>**” in partial fulfilment for the award of **Bachelor of Computer Application** is an authentic record of my own work carried out under the supervision and guidance of **<guide name>**, SAGE University, Indore.

I am fully responsible for the matter embodied in this report and it has not been submitted elsewhere for the award of any other degree.

Date:

<student name>



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Online Physiotherapy System Report

Introduction

Online physiotherapy systems aim to provide remote physiotherapy consultations, exercise guidance, and rehabilitation monitoring through a digital platform. With increasing demands for remote healthcare access, especially post-pandemic, such platforms offer convenient and efficient services to patients while reducing clinic visits.

Online Physiotherapy System Report

Problem Statement

Traditional physiotherapy often requires in-person sessions, which can be inconvenient for patients with mobility issues or those living in remote areas. There's a need for an accessible platform that allows patients to connect with physiotherapists online, perform guided exercises, and track progress.

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Objectives

- To provide remote physiotherapy consultations.
- To offer personalized exercise plans and rehabilitation routines.
- To monitor patient progress and maintain digital health records.
- To improve accessibility to physiotherapy services in rural/remote areas.

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Hypothesis

If a digital platform is developed for physiotherapy, it will enhance accessibility, reduce costs, and provide consistent treatment monitoring, improving patient outcomes compared to traditional methods.

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Methodology

- Requirement Gathering: Interviews with physiotherapists and patients.
- System Design: Designing UI/UX and backend logic.
- Implementation: Using MERN Stack (MongoDB, Express, React, Node.js).
- Testing: Unit testing, integration testing, and user acceptance testing.
- Deployment: Hosting on cloud platforms like AWS or Vercel.

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Feasibility Study

- Technical Feasibility: Existing technologies can support the proposed system.
- Economic Feasibility: Development and hosting costs are moderate and scalable.
- Operational Feasibility: Easy-to-use interface for both doctors and patients.
- Legal Feasibility: Must comply with data privacy laws (e.g., HIPAA/GDPR).

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Functional Requirement

- User registration and login (Admin, Patient, Physiotherapist).
- Video call support for consultations.
- Exercise tutorials and scheduling.
- Patient report generation.
- Feedback and communication module.

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Non- functional Requirement

- High system availability.
- User-friendly UI/UX.
- Secure data handling (encryption, authentication).
- Fast response time and performance.

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Software Requirements

- Frontend: React.js
- Backend: Node.js with Express.js
- Database: MongoDB
- Tools: VS Code, Postman, GitHub

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Hardware Requirements

- Server: Minimum 4GB RAM, 100GB SSD, multi-core CPU
- Client: Any system with a browser and stable internet connection

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DFD Diagram

Includes context-level and level-1 DFD representing data flow between users and the system.

(*Diagram not included in this PDF. Ask if you want visual diagrams separately.*)

Online Physiotherapy System Report

ER Diagram

Includes entities like Patient, Physiotherapist, Appointments, Exercises, and Reports.

(*Diagram not included in this PDF. Ask if you want visual diagrams separately.*)

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Use Case Diagram / Class Diagram

- Use Case: Shows interaction between users and system modules.
 - Class Diagram: Includes classes like User, Session, Exercise, Report.
- (*Diagrams not included in this PDF. Ask if you want visual diagrams separately.*)

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Database Tables

Users(user_id, name, email, role, password)

Sessions(session_id, user_id, physio_id, date, notes)

Exercises(exercise_id, title, video_url, description)

Reports(report_id, patient_id, summary, date)

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Testing

- Unit Testing: Individual components.
- Integration Testing: Frontend + Backend.
- System Testing: End-to-end.
- User Testing: Feedback-based iteration.

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Limitations

- Requires stable internet.
- Limited physical evaluation capability.
- User adoption might be slow among older populations.

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Future Scope

- Integration with wearable devices for real-time monitoring.
- AI-based posture correction and movement detection.
- Multilingual support and regional expansion.

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Conclusion

Online physiotherapy systems bridge the gap between patients and professional care through accessible and affordable digital solutions. With the right technology and support, they can revolutionize rehabilitation and physical therapy practices globally.