“PERSONAL PULSE FITNESS”

A PROJECT REPORT

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

Submitted to

Dr. Babasaheb Ambedkar Technological University,Lonere.

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CERTIFICATE

This is to certify that the Project entitled "Personal Pulse Fitness" submitted by is a record Miss .Aishwarya Katkar, Miss. Smita Jadhav, Miss. Sakshi Rajput, Mr. Aditya Nanaware. of the Bonafide work carried out by Prof. Mrs. S.S.Atpadkar, under my guidance, and it is approved for the partial fulfillment of requirement of DBATU, Lonere, for the award of the degree **Bachelor of Technology (Computer Science and Technology).**

Prof.S.S.Atpadkar	**Dr.S.V.Balshetwar**	**Dr. Vikram S. Patil**
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Place: Satara

Date:

Declaration by Student(s)

This is to declare that this report has been written by us. No part of the report is plagiarized from other sources. All information included from other sources have been duly acknowledged. We aver that if any part of the report is found to be plagiarized, we are shall take full responsibility for it.

Signature of Students

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ABSTRACT

The Gym Management System incorporating a Recommendation System and Image Processing is an innovative solution aimed at transforming the management and user experience in fitness centers. This system employs AI-driven recommendation algorithms to provide personalized workout plans, dietary suggestions, and fitness routines tailored to individual user preferences, goals, and performance data.

The dynamic nature of the recommendation system ensures continuous adaptation to user progress, enhancing effectiveness and engagement. With the integration of image processing technologies, the system introduces features such as facial recognition for secure and efficient member authentication, pose estimation for monitoring exercise form and posture, and real-time feedback to improve workout accuracy and reduce injury risks. The platform automates essential administrative tasks such as membership management, attendance tracking, and billing, while offering trainers a centralized dashboard to monitor member progress and optimize resource allocation.

This project is designed to meet the demands of fitness centers, wellness programs, and hybrid training models by delivering a highly personalized, data-driven, and efficient gym management experience. By combining the power of recommendation systems with advanced image processing, it not only enhances user satisfaction but also improves operational efficiency, safety, and overall fitness outcomes

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ABBREVIATIONS

GUI	Graphical User Interface
ERP	Enterprise Recourse Planning
DFD	Data Flow Diagram
UML	Unified Modeling Language