Pradnya Niketan Education Society, Pune

NAGESH KARAJAGI *ORCHID* COLLEGE OF ENGINEERING & TECHNOLOGY, SOLAPUR

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Final year Project-I Work Diary

Academic Year: 2025-2026

Project Title: Personalized Health Management using Machine Learning for Calorie Prediction and LLM Chatbot for Diet Planning

Project Group No: 01

Project Group Members:

Sr No.	Name	Roll No.	Exam Seat No.
1	AbdulKhalik Valsangkar	28	2262231995029
2	Sahil Attar	31	2262231995032
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Project Guide: Prof. N. B. Aherwadi

Project Schedule

Month	Week	Project Activity
August	Week 4	Formation of project group
September	Week 1	Finalization of project idea
	Week 2	Finalization of project title
	Week 3	Study of existing systems
	Week 4	Literature survey
October	Week 1	Literature Review
	Week 2	Project Abstract
	Week 3	System Architecture
	Week 4	Algorithm
November	Week 1	Project Implementation
	Week 2	Class Case, Use Case, Activity, Sequence, DFD, UML Diagrams
	Week 3	Report writing, Project Work Diary
	Week 4	Report Submission

Project Progress Sheet

Semester – I

Activity week: August Week 4 From 24/08/2025 to 30/08/2025

Activity according to schedule:

1. Formation of project group

Group is formed with four members in a team.

Date: 29/08/2025 Guide / Co-guide

Activity week: September Week 1 From 01/09/2025 to 06/09/2025

Activity according to schedule:

1. Finalization of project idea

Work done:

After discussing multiple domains, we selected a project idea focused on health management using Machine Learning and LLMs due to its high relevance and usefulness in real life.

Date: 05/09/2025 Guide / Co-guide

Activity week: September Week 2 From 07/09/2025 to 13/09/2025

Activity according to schedule:

1. Finalization of project title

Based on the selected idea and research, the final project title was decided as “Personalized Health Management using Machine Learning for Calorie Prediction and LLM Chatbot for Diet Planning.”

Date: 12/09/2025 Guide / Co-guide

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Activity week: September Week 3 From 14/09/2025 to 20/09/2025

Activity according to schedule:

1. Study of existing systems

Work done:

We studied various calorie prediction systems, fitness apps, and LLM-based diet recommendation tools to understand their limitations and identify improvement areas.

Date: 19/10/2025 Guide / Co-guide

Activity week: September Week 4 From 21/09/2025 to 27/09/2025

Activity according to schedule:

1. Literature survey

Work done

Reviewed published research papers on calorie estimation models, nutrition tracking, and LLM-based diet planning systems to understand previous methodologies and gaps.

Date: 26/09/2025 Guide / Co-guide

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Activity week: October Week 1 From 29/09/2025 to 04/11/2025

Activity according to schedule:

1. Literature Review

Work done:

Summarized insights from literature, including ML techniques used in calorie prediction (Regression, Random Forest, DNN) and conversational diet tracking using LLMs.

Date: 03/11/2025 Guide / Co-guide

Activity week: October Week 2 From 05/10/2025 to 11/10/2025

Activity according to schedule:

1. Project Abstract

Work done

Prepared the project abstract highlighting the purpose, workflow, ML model, LLM chatbot, and expected benefits of personalized diet planning.

Date: 10/10/2025 Guide / Co-guide

Activity week: October Week 3 From 12/10/2025 to 18/10/2025

Activity according to schedule:

1. Project Analysis

Work done:

Designed the system architecture showing ML-based calorie prediction, LLM chatbot interaction, food intake recording, and personalized diet plan generation.

Date: 17/10/2025 Guide / Co-guide

Activity week: October Week 4 From 19/10/2025 to 25/10/2025

Activity according to schedule:

1. System Architecture

1. Work done

Created the step-by-step algorithm covering user input collection, ML calorie prediction, chatbot conversation flow, calorie comparison, and diet plan generation.

Date: 24/10/2025 Guide / Co-guide

Activity week: November Week 1 From 2/11/2025 to 8/11/2025

Activity according to schedule:

1. Algorithm

Work done:

Started implementing the ML model for calorie prediction and began integrating the chatbot framework for collecting user dietary data.

Date: 7/11/2025 Guide / Co-guide

Activity week: November Week 2 From 09/11/2025 to 15/11/2025

Activity according to schedule:

1. Class Case, Use Case, Activity, Sequence, DFD, UML Diagrams

Work done

Prepared all required diagrams based on system architecture and workflow to represent functionalities and interactions in the project.

Date: 14/11/2025 Guide / Co-guide

Activity week: November Week 3 From 16/11/2025 to 22/11/2025

Activity according to schedule:

1. Report writing
2. Work Diary

Work done:

Prepared the project report and updated the work diary based on all completed tasks including literature review, architecture, and implementation steps

Date: 23/11/2025 Guide / Co-guide

Activity week: November Week 4 From 23/11/2025 to 29/11/2025

Activity according to schedule:

Report Submission

Work done:

Finalized and submitted the project report after completing all required documentation and reviews.

Date: 29/11/2025 Guide / Co-guide

(Prof. G. N. Chanderki) (Dr. M. B. Patil)

Project Coordinator **HOD**