

Personalized Workout Planner - Project Report

Introduction

This report documents the Personalized Workout Planner system which generates workout recommendations based on user data, including goals, previous workouts, and injuries.

Problem Statement

Many fitness enthusiasts struggle with choosing the right workout plan that aligns with their goals and accommodates their physical limitations. This project aims to address this problem.

Objectives

- Recommend workouts based on user goals
- Avoid exercises that could harm existing injuries
- Provide both console and web-based outputs

System Overview

The system uses a rule-based engine to determine the best workout options from user inputs defined in a JSON format. The web interface is built using Flask and styled with Bootstrap.

Methodology

We use conditional rules to generate personalized recommendations. Each workout is scored based on its relevance to the user profile.

Implementation

The project includes:

- ``recommender.py`` for rule-based logic
- ``app.py`` for web interaction
- ``user.json`` for user data
- ``templates/index.html`` for the UI

Results

The application outputs workout recommendations both in the terminal and in a web interface. The web page dynamically displays suggestions, and a video demo is available for illustration.

Conclusion & Future Work

This system demonstrates a simple yet effective method for personalized workout planning. In the future, we aim to incorporate ML-based suggestions for enhanced personalization