

Project Design Phase-I
Proposed Solution Template

Date	27 October 2023
Team ID	Team-592158
Project Name	Project - Predicting the Unpredictable: A Look into the World of Powerlifting
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The challenge is predicting powerlifters' performance using age, weight, fitness, and psychology data. Insufficient evaluation methods hinder effective training. Utilizing regression algorithms like Linear Regression, Decision Tree, Random Forest, and XgBoost aims to enhance accuracy.
2.	Idea / Solution description	The solution employs regression algorithms on powerlifting data, predicting athletes' peak performance trends. The best model, determined through training and testing, will be saved in pickle format and deployed locally using Flask for experts' easy evaluation.

3.	Novelty / Uniqueness	Uniqueness lies in the holistic approach to predicting powerlifting performance, considering age, weight, fitness, and psychology. Multiple regression algorithms increase accuracy, and local deployment via Flask ensures accessibility for experts.
4.	Social Impact / Customer Satisfaction	Addressing the lack of exercise-related deaths, the solution promotes sports engagement, potentially reducing abnormal development in adolescents. Experts benefit from improved athlete evaluation, enhancing decision-making in competitions for increased customer satisfaction.
5.	Business Model (Revenue Model)	Revenue could come from providing predictive analysis as a service to coaches or teams. This might include subscription-based models, consultancy fees, or one-time purchases of the predictive tool. Partnerships with sports organizations offer additional revenue opportunities.
6.	Scalability of the Solution	The solution scales easily, relying on established regression algorithms and accommodating increased powerlifting data. Flask deployment ensures seamless scalability, meeting growing user needs without performance compromise. As demand rises, the system can expand to serve a larger audience.

