Project Design Phase-I
Proposed Solution Template

Date	09-11-2023
Team ID	Team-591679
Project Name	T20 TOTALITARIAN: MASTERING SCORE PREDICTIONS
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	T20 cricket match score prediction is challenging due to sport's randomness and dynamism, and traditional statistical methods often fail to capture complex interactions influencing match outcomes.
2.	Idea / Solution description	T20 Totalitarian is a machine learning framework that uses deep learning techniques to improve score prediction accuracy in T20 cricket matches by analysing match-related factors, Using Data Integration, Feature Engineering, Ensemble Learning, and real time updates.
3.	Novelty / Uniqueness	T20 Totalitarian is a novel approach to T20 cricket score prediction, combining advanced deep learning techniques, real-time updates, explain ability, and generalizability. It employs a multi-stage methodology, involving data integration, feature engineering, ensemble learning, and real-time updates. The framework uses deep learning architectures to extract meaningful features from raw data, capturing complex relationships between match factors. It employs an ensemble of different models, each trained on distinct data representations and learning architectures, reducing overfitting and improving generalization performance. The framework also uses interpretable AI to explain the reasoning behind its predictions, building trust and confidence in its capabilities.
4.	Social Impact / Customer Satisfaction	T20 Totalitarian, uses machine learning to predict scores, enhancing fan engagement and improving cricket knowledge. The app fosters a sense of belonging among cricket enthusiasts, promoting data-driven decision making. It caters to both novice and expert cricket fans, making the sport more accessible. High accuracy in score predictions lead to satisfied customers who value the app's insights. Additionally, users

		can improve their cricket prediction skills through gamification and competition, leading to a sense of achievement and growth in their understanding of cricket matches.
5.	Business Model (Revenue Model)	T20 Totalitarian, a deep learning-based approach to score prediction in T20 cricket matches, is expected to significantly impact various stakeholders, including fans, commentators, betting enthusiasts, and sports analysts. The platform offers accurate and timely predictions, real-time match insights, and explainable AI capabilities, enhancing fan engagement and understanding of match dynamics. It also empowers commentators with real-time data updates, enabling them to provide more informed commentary and predict probabilities The platform also serves as a valuable tool for sports analysts, allowing them to delve deeper into match data, identify patterns and trends, and gain new insights into player performances. This will help coaches, team management, and sports organizations optimize player selection and develop effective game plans.
6.	Scalability of the Solution	T20 Totalitarian is a framework that aims to handle the increasing volume and complexity of match data without compromising performance or accuracy. The framework uses distributed data storage, data compression, partitioning, and sharding to efficiently store and manage massive amounts of historical match data. It also employs distributed computing infrastructures, model compression, and quantization techniques to distribute training and deployment across multiple machines. The framework also uses real-time monitoring tools, alerting mechanisms, and regular scalability testing to evaluate its ability to handle increasing data volumes and concurrent requests. The framework is deployed using cloud-native technologies, with autoscaling mechanisms and a pay-as-you-go pricing model to optimize costs and align with fluctuating usage patterns. By incorporating these scalability considerations, T20 Totalitarian can effectively handle the growing volume and complexity of match data, ensuring its continued relevance and accuracy in predicting T20 cricket scores.