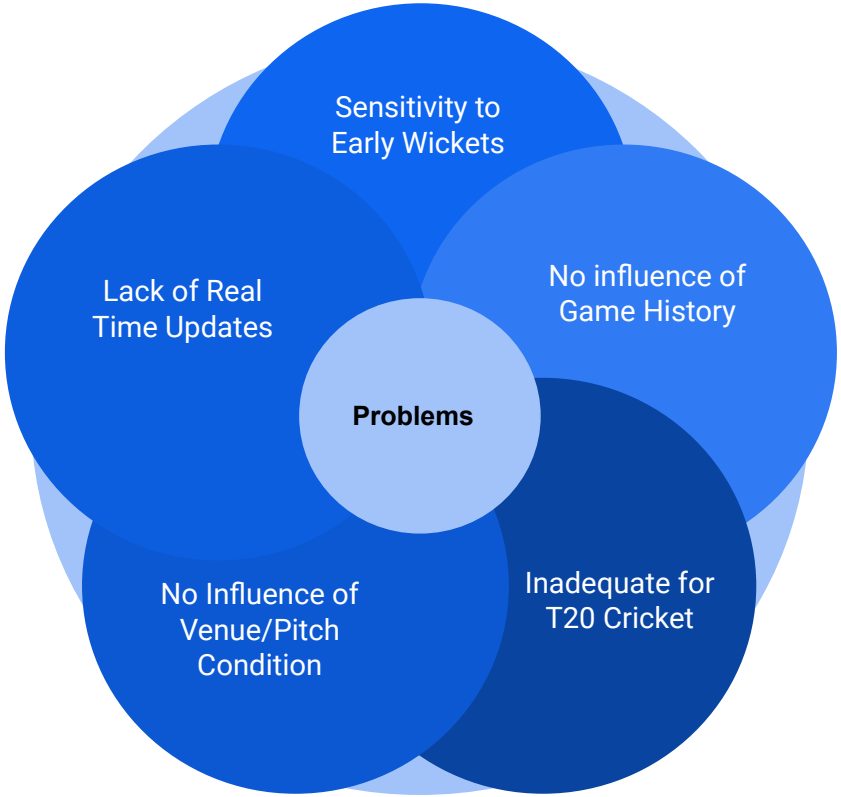
Team Name : Synthapse

Problem Statement : AI model to resolve drawbacks of DLS

Problems with DLS Method:



Other Reference

Brief about the Idea:

The concept involves using AI to improve the **fairness** and **accuracy** of **target score** adjustments in rain-affected cricket matches.

AI analyzes real-time data, including:

- match conditions,

- player performance,

- weather forecasts,

- historical data

to calculate more equitable and informed target scores and ensuring a level playing field for both teams.

Opportunity :

How different is it from any other existing ideas out there?

Our AI-driven cricket target score adjustment system leverages real-time data, customization, and advanced AI, setting it apart from traditional methods and offering realistic outcomes for fairness.

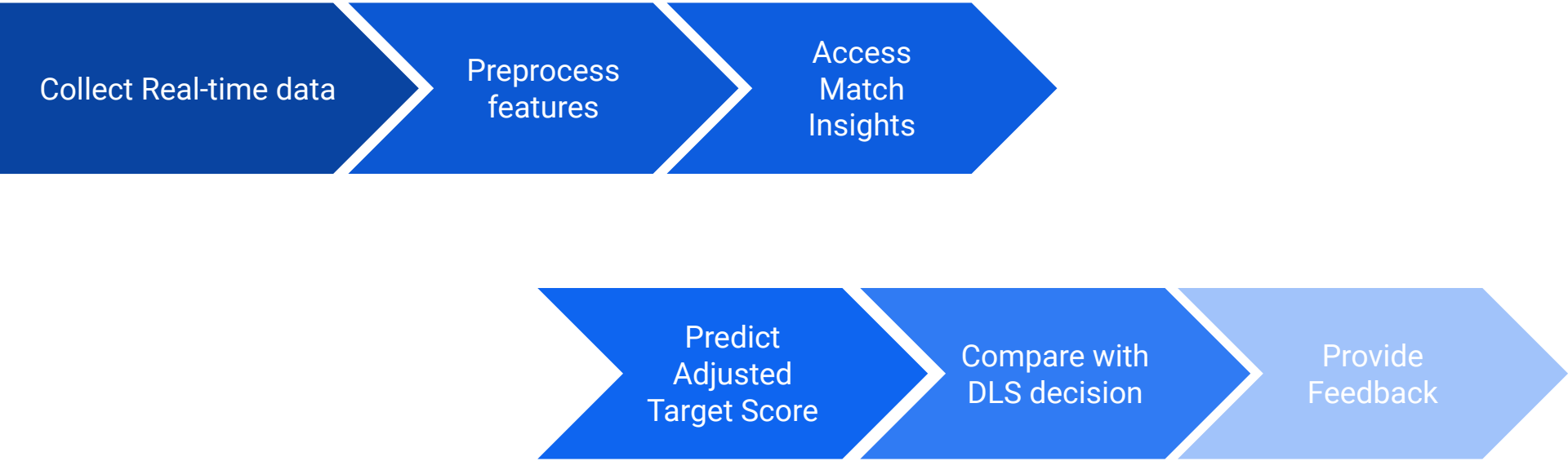
How will it be able to solve the problem?

By consistently adapting target scores in response to changing conditions and conducting thorough data analysis, we guarantee fair and equitable outcomes in cricket matches affected by rain, thereby enhancing the overall integrity of the game.

List of features offered by the solution :

Other features: DLS adjustment History, Feilding Strength

Process Flow Diagram Diagram:

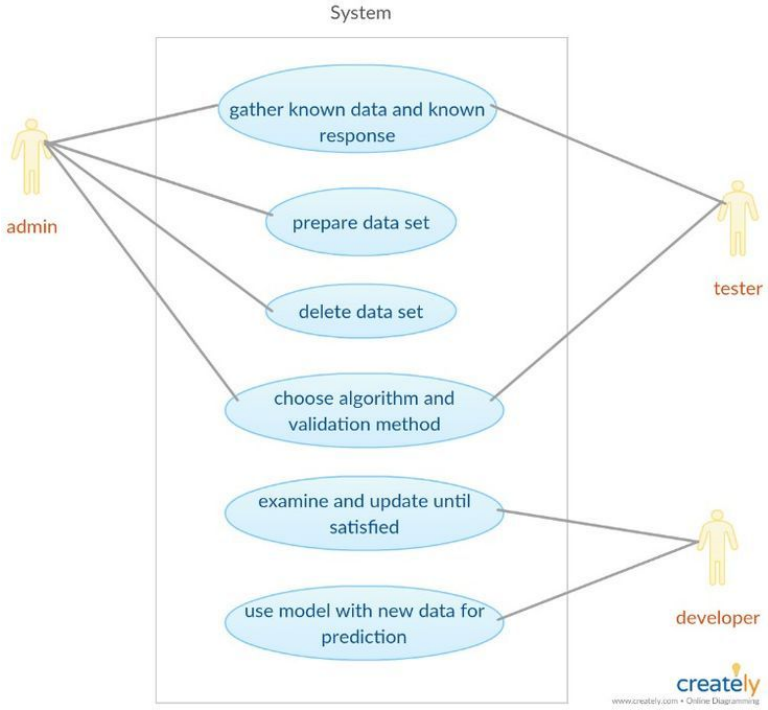


Business Logic of the solution:
AI Integration: Embed advanced AI algorithms into the ICC cricket system for real-time Duckworth-Lewis-Stern (DLS) method enhancement.

Real-Time Accuracy: Ensure precision in target score adjustments during rain-affected matches using real-time data on overs bowled, wickets lost, run rates, and weather conditions.

Historical Validation: Continuously validate the system's accuracy against historical data and gather feedback for ongoing improvements.

Integrity and Trust: Prioritize data security and collaborate closely with ICC committees and experts to build trust and endorsement for the AI-enhanced DLS system.



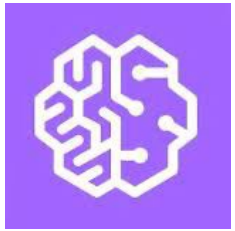
Development:

- Python Programming
  - Machine/Deep Learning Model
  - Frameworks:
    - Tensorflow
    - Pytorch

Web Interface:
Streamlit

Deployment/Training:

- Cloud: AWS Sagemaker,
- S3 Bucket,
- EC2 Instance.



Estimated cost of/after implementing the solution :

Infrastructure on AWS could cost between 2,000 INR to 15,000 INR per month depending on the instance type and region. Storing data in AWS S3, which can cost from 500 INR to 5,000 INR per month depending on the amount of data stored.

A Typical game will have about a maximum of 350 MB of game data will be input to the model.

The running cost of the final model will only be the cost of running the equipment for the time of the game for collecting the data and then the cost of running the model on the cloud service and preprocessing.

The estimate cost is 4000 INR and may be subjected for more features.

ICC | NIUM

NEXT IN 2.0

<GLOBAL CRICKET HACKATHON/>

THANK YOU