Problem Overview:

We have consolidated the data of each of the players sold in the IPL 2022 Auction and that of the retained players from each franchise.

Data Available:

The data available in the dataset are -
- Matches Played
- Runs
- Wickets
- Average
- Strike Rate
- Catches
- Runouts
- Stumps

Constraints to be Followed :

Based on the data available, we will summarize our analyze by -
1. Extracting and loading of data
2. Cleaning the data and removing the noise
3. Analyze the data on different parameters.
4. Visualize the important statistical findings
5. Making the best playing XI - based on ICC world cup squad formation and last year's squad formation of the winning team in the IPl i.e. how many batters, bowlers and all-rounders should be included in the team. The format to used is -
   3 Batsmen, 5 Allrounders (3 Seamers and 2 Spinning Options), 3 Bowlers
   In final squad - 8 batting options, 8 Bowling options (3 spin options, 5 fast bowling options)

Players Requirements:

Opener Batsman

Parameters	Description	Criteria
Batting Average	Average runs scored in an innings	> 34

Strike Rate	No. of runs scored per 100 balls	> 125
Matches Batted	Total innings Batted	> 150
Runs Scored	Total runs scored in the IPL	> 5000
Batting Position	Order in which the batter played	Not below 4

All Rounder Players

Parameters	Description	Criteria
Batting Average	Average runs scored in an innings	> 20
Strike Rate	No. of runs scored per 100 balls	> 125
Innings Batted	Total innings Batted	> 125
Runs Scored	Total runs scored in the IPL	> 1000
Bowling Wickets	Total Wickets taken in the IPL	> 50
Bowling Average	Average runs conceded by bowler in an innings	< 35
Bowling Strike Rate	Balls bowled to take a wicket	< 30
Economy	Runs conceded per over by the bowler	< 10

Specialist Bowlers

Parameters	Description	Criteria
Innings Bowled	Total Innings Bowled	> 100
Bowling Economy	Average runs allowed per over	< 8
Bowling Strike Rate	Average no. of balls required to take a wicket	< 25
Bowling Average	No. of runs allowed per wicket	< 30
Bowling Wickets	Total Wickets taken in the IPL	> 100