**Project: IPL 2023 Team-wise Batting and Bowling Analysis**

**Objective:** Analyse IPL 2023 team-wise batting and bowling performance to identify key players, trends, and strategies for teams.

**Dataset:** Collect data from various sources, including official IPL websites, cricket databases, or sports analytics platforms. The dataset should include information such as match details, team-wise batting and bowling statistics, player performance, and match outcomes.

**Steps Involved:**

1. **Data Collection:**

* Gather IPL 2023 team-wise batting and bowling dataset from reliable sources.
* Ensure the dataset includes relevant information such as match details, team-wise batting and bowling statistics, player performance, and match outcomes.

1. **Data Cleaning and Preparation:**

* Load the dataset into a Data Frame.
* Clean the data by handling missing values, correcting errors, and formatting data types.
* Ensure consistency in team and player names across the dataset.

1. **Exploratory Data Analysis (EDA):**

* Explore the dataset to understand its structure and variables.
* Analyse basic statistics like average runs scored per match, average wickets taken per match, etc., for each team.
* Visualize distributions and relationships between variables using graphs and charts.
* Identify outliers or anomalies in the data.

1. **Batting Analysis**:

* Analyse batting performance by teams:
  + Calculate metrics such as total runs scored, average runs per match, highest and lowest scores, etc.
  + Identify top run-scorers for each team.
  + Compare batting performances across teams.
  + Visualize batting trends over the season.

1. **Bowling Analysis**:

* Analyse bowling performance by teams:
  + Calculate metrics such as total wickets taken, average wickets per match, best bowling figures, etc.
  + Identify top wicket-takers for each team.
  + Compare bowling performances across teams.
  + Visualize bowling trends over the season.

1. **Team Performance Comparison**:

* Compare overall performance of teams based on batting and bowling statistics.
* Identify strengths and weaknesses of each team.
* Analyse whether there are any correlations between batting and bowling performance.

1. **Insights and Reporting**:

* Summarize your findings and insights from the analysis.
* Create visualizations and reports to present your analysis effectively.
* Highlight key takeaways, interesting observations, and any actionable insights.

1. **Documentation and Presentation**:

* Document your analysis process, methodologies, and assumptions.
* Create a presentation summarizing your analysis, insights, and findings.
* Make sure your presentation is clear, concise, and visually appealing.