## **🧠 IPL Auction 2023 – Insightful Summary**

### **📊 Data Overview**

* The dataset was loaded from iplauction2023.csv.
* Basic checks (shape, info(), describe()) were done to understand structure and missing values.
* Missing values in:  
  + final price (in lacs) and base price (in lacs) were filled using the **median**.
  + franchise column was filled with "Unknown".

### **💸 Price Analysis**

#### **🔟 Top 10 Players – Base Price vs Final Price**

* Visualized using a **grouped bar chart**.
* All top players had significantly higher **final prices** than base prices.
* **Sam Curran** stood out with the highest bid of **₹1850 lacs** — a major highlight of the auction.

### **🧬 Player Style Insights**

* Aggregated total spending per **player style** (e.g., batsman, bowler, all-rounder).
* Represented using a **pie chart**.
* This gives an idea of how franchises value different skill sets.

### **📌 Key Insights**

1. **High Demand for Premium Players**: The top 10 players fetched much higher prices than their base — indicating bidding wars and strategic targeting.
2. **Spending Strategy by Role**:  
   * Pie chart shows budget distribution across player styles.
   * Teams likely focused on specific needs (e.g., all-rounders or bowlers).
3. **Effective Use of Median Imputation**: Filling missing prices with median helps maintain data balance without skewing too high/low.