# J-LEAGUE DATA ANALYSIS PROJECT REPORT

The purpose of the project is to derive insights from the current J1 League table. Below are the steps taken and analysis I conducted.

**1. Data Scraping**

I first decided to scrape the current J1 League table from the official website. I used the Beautiful Soup library to help me parse HTML, extract the table data and create the data frame.

**2. Data Preparation**

I removed special characters to avoid discrepancies. I then converted columns into their appropriate data types. Numeric columns were converted to ints and text columns were converted to string.

**3. Goals Scored Analysis**

I then plotted the top 10 teams with the most goals scored using Matplotlib

- **Insight:** FC Machida Zelvia and Kashima Antlers are tied for the most goals scored as of May 28th, with 27 each.

I then plotted the top 10 teams with the least goals scored using Matplotlib

- **Insight:** Kyoto Sanga FC scored the least number of goals as of May 28th, with 12.

**4. Goals Scored Grouping**

I then grouped by the number of total goals scored, counted how many teams scored that number of goals, and listed the team names next to the count

- **Insight:** The modal number of goals scored is 22, as of May 28th. 3 teams (Cerezo Osaka, Jubilo Iwata, and Shonan Bellmare) have scored that many.

**5. Goals Conceded Analysis**

I then plotted the top 10 teams with the least goals conceded using Matplotlib

- **Insight:** Gamba Osaka have conceded the least number of goals as of May 28th, with 11.

I then plotted the top 10 teams with the most goals conceded using Matplotlib

- **Insight:** Hokkaido Consadole Sapporo have conceded the most number of goals as of May 28th, with 31.

**6. Goals Conceded Grouping**

I then grouped by the number of total goals conceded, counted how many teams conceded that number of goals, and listed the team names next to the count

- **Insight:** The modal number of goals conceded is 17, as of May 28th. 4 teams (Kashima Antlers, Nagoya Grampus, Kashiwa Reysol, and Avispa Fukuoka) have conceded that many.

**7. Recent Form Analysis**

I then displayed the number of points each team earned in their last 5 matches in descending order alongside its position. I then plotted the number of points each team earned in their last 5 matches (in descending order) using Matplotlib

- **Insight:** FC Machida Zelvia, Gamba Osaka, and Kashima Antlers have earned the most points in their last 5 matches, as of May 28th, earning 13.

**8. Goal Difference Analysis**

I then plotted the goal difference by team (in descending order) using Matplotlib

- **Insight:** FC Machida Zelvia has the best goal difference as of May 28th, with 15. Hokkaido Consadole Sapporo and Kyoto Sanga are tied for the worst goal difference, with -18 each.

I then grouped by the goal difference (in descending order), counted how many teams had that goal difference, and listed the team names next to the count

- **Insight:** The modal goal differences are 4 and -2 as of May 28th. Gamba Osaka, Urawa Reds, and Cerezo Osaka have a goal difference of 4. Avispa Fukuoka, Tokyo Verdy, and Jubilo Iwata have a goal difference of -2.

**9. Points Grouping**

I then grouped by the number of points (in descending order), counted how many teams scored earned that many points, and listed the team names next to the count

- **Insight:** The modal number of points a team has are 24, 23, 22, 17, and 14 as of May 28th, with 2 teams each having that many points.

**10. Points Per Game Analysis**

I then displayed the position alongside the number of points each team earned per game (in descending order)

- **Insight:** FC Machida Zelvia earned the most points per game as of May 28th, with 2.1875 points/game. Kyoto Sanga earned the least number of points per game, with 0.625 points/game