

Findings from Premier League Team Analysis 2000-01 to 2021-22

Exploratory Data Analysis (SQL)

1. Number of Teams: A total of 44 different teams have played in the Premier League during the 2000/01 to 2021/22 seasons
2. Top Performers:
 - Points: Manchester United earned the most points (1698)
 - Wins: Manchester United secured the most wins (507)
 - Losses: Newcastle United experienced the most losses (307)
 - Draws: Everton recorded the most draws (228)
3. Highest Win Percentage:
 - Manchester United: 60.65%
 - Chelsea: 58.85%
 - Arsenal: 56.22%
4. Most Goals Scored per Season (Average):
 - Manchester United: 71
 - Arsenal: 70.95.
 - Manchester City: 70.38
5. Goals Conceded per Season (Average for teams with 15+ seasons):
 - West Ham United: 55.79
 - Fulham: 55.4
 - Newcastle United: 55
6. Teams That Played All 22 Seasons:
 - Arsenal
 - Chelsea
 - Manchester United
 - Liverpool
 - Everton
 - Tottenham

7. Most Consistent Teams (Average League Position):

- Manchester United: 2.86
- Chelsea: 3.32
- Arsenal: 3.77

8. League Titles:

- Manchester United: 7
- Manchester City: 6
- Chelsea: 5
- Arsenal: 2
- Leicester City: 1
- Liverpool: 1

9. Most Relegated Teams:

- Norwich City: 5 times
- West Bromwich Albion: 5 times

10. Top Scoring and Lowest Conceding Teams (All Seasons Played):

- Manchester United: 1562 goals scored
- Chelsea: 757 goals conceded

11. Tight Relegation Battles:

- 2006/07: Wigan Athletic avoided relegation on goal difference (tied points with Sheffield United)
- 2007/08: Fulham survived relegation with a higher goal difference (tied points with Reading)

12. Close Top 4 Qualification Battle:

- In the 2015/16 season, Manchester United and Manchester City both earned 66 points. City secured 4th place and Champions League qualification due to goal difference

13. Closest League Title Race:

- 2011/12: Manchester City and Manchester United finished with the same points. Manchester City won the league on goal difference.

14. Point Variability Across Seasons:

- Lowest Standard Deviation: 14.93 in 2002/03
- Highest Standard Deviation: 20.48 in 2018/19

15. Never Relegated Teams:

- Arsenal
- Chelsea
- Manchester United
- Liverpool
- Everton
- Tottenham

Advanced Data Analysis (Python)

Correlation Analysis:

- A strong correlation of 0.97 was found between Goal Difference (GD) and Points (Pts), indicating that teams with higher goal differences tend to earn more points.