

# PDSP 2024, Practice Assignment 1, 22 August 2024

## IPL 2024 data

- All questions below use the same list of IPL data that we had seen in the examples in Lecture 2, 8 August, 2024.
- Each tuple consists of (Venue, Team 1, Team 2, Toss winner, Match winner, Run target)

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In [1]: matchlist = [  
    ("Chennai", "RCB", "CSK", "RCB", "CSK", 174),  
    ("Mohali", "DC", "PK", "PK", "PK", 175),  
    ("Kolkata", "KKR", "SRH", "SRH", "KKR", 209),  
    ("Jaipur", "RR", "LSG", "RR", "RR", 194),  
    ("Ahmedabad", "GT", "MI", "MI", "GT", 169),  
    ("Bengaluru", "PK", "RCB", "RCB", "RCB", 177),  
    ("Chennai", "CSK", "GT", "GT", "CSK", 207),  
    ("Hyderabad", "SRH", "MI", "MI", "SRH", 278),  
    ("Jaipur", "RR", "DC", "DC", "RR", 186),  
    ("Bengaluru", "RCB", "KKR", "KKR", "KKR", 183),  
    ("Lucknow", "LSG", "PK", "LSG", "LSG", 200),  
    ("Ahmedabad", "SRH", "GT", "SRH", "GT", 163),  
    ("Visakhapatnam", "DC", "CSK", "DC", "DC", 192),  
    ("Mumbai", "MI", "RR", "RR", "RR", 126),  
    ("Bengaluru", "LSG", "RCB", "RCB", "LSG", 182),  
    ("Visakhapatnam", "KKR", "DC", "KKR", "KKR", 273),  
    ("Ahmedabad", "GT", "PK", "PK", "PK", 200),  
    ("Hyderabad", "CSK", "SRH", "SRH", "SRH", 166),  
    ("Jaipur", "RCB", "RR", "RR", "RR", 184),  
    ("Mumbai", "MI", "DC", "DC", "MI", 235),  
    ("Lucknow", "LSG", "GT", "LSG", "LSG", 164),  
    ("Chennai", "KKR", "CSK", "CSK", "CSK", 138),  
    ("Mohali", "SRH", "PK", "PK", "SRH", 183),  
    ("Jaipur", "RR", "GT", "GT", "GT", 197),  
    ("Mumbai", "RCB", "MI", "MI", "MI", 197),  
    ("Lucknow", "LSG", "DC", "LSG", "DC", 168),  
    ("Mohali", "PK", "RR", "RR", "RR", 148),  
    ("Kolkata", "LSG", "KKR", "KKR", "KKR", 162),  
    ("Mumbai", "CSK", "MI", "MI", "CSK", 207),  
    ("Bengaluru", "SRH", "RCB", "RCB", "SRH", 288),  
    ("Kolkata", "KKR", "RR", "RR", "RR", 224),  
    ("Ahmedabad", "GT", "DC", "DC", "DC", 90),  
    ("Mohali", "MI", "PK", "PK", "MI", 193),  
    ("Lucknow", "CSK", "LSG", "LSG", "LSG", 177),  
    ("Delhi", "SRH", "DC", "DC", "SRH", 267),  
    ("Kolkata", "KKR", "RCB", "RCB", "KKR", 223),  
    ("Mohali", "PK", "GT", "PK", "GT", 143),  
    ("Jaipur", "MI", "RR", "MI", "RR", 180),  
    ("Chennai", "CSK", "LSG", "LSG", "LSG", 211),  
    ("Delhi", "DC", "GT", "GT", "DC", 225),  
    ("Hyderabad", "RCB", "SRH", "RCB", "RCB", 207),  
    ("Kolkata", "KKR", "PK", "PK", "PK", 262),  
    ("Delhi", "DC", "MI", "MI", "DC", 258),  
    ("Lucknow", "LSG", "RR", "RR", "RR", 197),  
    ("Ahmedabad", "GT", "RCB", "RCB", "RCB", 201),  
    ("Chennai", "CSK", "SRH", "SRH", "CSK", 213),  
    ("Kolkata", "DC", "KKR", "DC", "KKR", 154),  
    ("Lucknow", "MI", "LSG", "LSG", "LSG", 145),  
    ("Chennai", "CSK", "PK", "PK", "PK", 163),  
    ("Hyderabad", "SRH", "RR", "SRH", "SRH", 202),  
    ("Mumbai", "KKR", "MI", "MI", "KKR", 170),  
    ("Bengaluru", "GT", "RCB", "RCB", "RCB", 148),  
    ("Dharamsala", "CSK", "PK", "PK", "CSK", 168),
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("Lucknow", "KKR", "LSG", "LSG", "KKR", 236),
("Mumbai", "SRH", "MI", "MI", "MI", 174),
("Delhi", "DC", "RR", "RR", "DC", 222),
("Hyderabad", "LSG", "SRH", "LSG", "SRH", 166),
("Dharamsala", "RCB", "PK", "PK", "RCB", 242),
("Ahmedabad", "GT", "CSK", "CSK", "GT", 232),
("Kolkata", "KKR", "MI", "MI", "KKR", 158),
("Chennai", "RR", "CSK", "RR", "CSK", 142),
("Bengaluru", "RCB", "DC", "DC", "RCB", 188),
("Delhi", "DC", "LSG", "LSG", "DC", 209),
("Guwahati", "RR", "PK", "RR", "PK", 145),
("Mumbai", "LSG", "MI", "MI", "LSG", 215),
("Bengaluru", "RCB", "CSK", "CSK", "RCB", 219),
("Hyderabad", "PK", "SRH", "PK", "SRH", 215),
("Ahmedabad", "SRH", "KKR", "SRH", "KKR", 160),
("Ahmedabad", "RCB", "RR", "RR", "RR", 173),
("Chennai", "SRH", "RR", "RR", "SRH", 176),
("Chennai", "SRH", "KKR", "SRH", "KKR", 114)
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## Questions

1. What was the minimum run target?
2. What was the second lowest run target? There may be multiple matches with the same minimum run target. The value we want is the next lowest run target other than the minimum run target.
3. Which venues had the lowest and highest average run targets?
4. Which teams were least and most successful in winning the toss, in terms of percentage of tosses won?
5. Which teams had the lowest and highest correlations between winning the toss and winning the match?