MOTIVATION:

Cricket is a bat-and-ball game played between two teams of eleven players on a field at the center of which is a 22-yard (20-metre) pitch with a wicket at each end, each comprising two bails balanced on three stumps[[1].](https://en.wikipedia.org/wiki/Cricket) In India, cricket is not only considered as a game but it is considered as an emotion. Right from my childhood watching cricket and discussing about it has always been a part of my life. After watching this [video](https://www.youtube.com/watch?v=thql-9i9b1k) on YouTube a few months back I realized how the insights from data can help teams to form strategies to win a cricket match. IPL is a T20 cricket league contested by teams representing different cities in India. In this project I intend to analyze the various factors that influence the results of an Indian Premier League match.

nature of your research question and why you chose it.

Research questions

DATA SOURCE:

• Data Source (6 points): Describe the dataset(s) you used, including the following   
minimal information:  
• The specific URL where the dataset or API resource was located (or provide a   
suitable sample),  
• The data format and important variables and their types,  
• How many records are included or retrieved (if using an API), and  
• What time periods they covered (if there is a time element)

RESEARCH QUESTION 1:

**Does the venue in which the match is played in influence the outcome of a game?**

METHODS:

1. How did you manipulate the data to prepare it for analysis?  
2. How did you handle missing, incomplete, or noisy data?

3. What challenges did you encounter and how did you solve them?

ANALYSIS AND RESULTS:

• 1. How did you perform data analysis in code, i.e. briefly describe the   
workflow of your source code  
2. Summarize, in writing, the interesting result, relationship or insight (or   
maybe lack thereof) that you found in answer to that question using the   
analysis you described in the Methods section. Negative results, where   
your didn't end up being able to answer the question, are perfectly   
acceptable as long as you justify the methods  
3. Include at least one accompanying data visualization that does an   
excellent job supporting the results of your analysis for that question(created in ).

RESEARCH QUESTION 2:

**Does winning the toss have an influence the outcome of a game?**

METHODS:

1. How did you manipulate the data to prepare it for analysis?  
2. How did you handle missing, incomplete, or noisy data?

3. What challenges did you encounter and how did you solve them?

ANALYSIS AND RESULTS:

• 1. How did you perform data analysis in code, i.e. briefly describe the   
workflow of your source code  
2. Summarize, in writing, the interesting result, relationship or insight (or   
maybe lack thereof) that you found in answer to that question using the   
analysis you described in the Methods section. Negative results, where   
your didn't end up being able to answer the question, are perfectly   
acceptable as long as you justify the methods  
3. Include at least one accompanying data visualization that does an   
excellent job supporting the results of your analysis for that question(created in ).

RESEARCH QUESTION 3:

**Does the runs scored and wickets taken at crucial parts of the match have an influence on the outcome of the game?**

METHODS:

1. How did you manipulate the data to prepare it for analysis?  
2. How did you handle missing, incomplete, or noisy data?

3. What challenges did you encounter and how did you solve them?

ANALYSIS AND RESULTS:

• 1. How did you perform data analysis in code, i.e. briefly describe the   
workflow of your source code  
2. Summarize, in writing, the interesting result, relationship or insight (or   
maybe lack thereof) that you found in answer to that question using the   
analysis you described in the Methods section. Negative results, where   
your didn't end up being able to answer the question, are perfectly   
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