<Introduction Of Data Management> PROJECT REPORT

(Project Semester January-May 2024)

IPL Data Analysis

Submitted by

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Registration No: 12218629

Programme and Section: CSE(K22QY)

Course Code: INT217

Under the Guidance of

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Discipline of CSE/IT

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Table of Content

Introduction:

The Indian Premier League (IPL) has emerged as one of the most popular cricket leagues globally, captivating millions of fans with its thrilling matches and star-studded line-ups. In this report, we delve into the world of IPL data analysis, exploring various facets of the league's performance, player statistics, and team dynamics.

Objectives/Scope of the Analysis:

The primary objectives of this analysis are to:

- Extract insights from IPL data.
- Identify trends and patterns in player and team performance.
- Analyze factors influencing match outcomes.

Source of Dataset:

The dataset used for this analysis was sourced from [provide source details], encompassing comprehensive data on IPL matches, players, teams, and match statistics.

ETL Process:

The Extract, Transform, Load (ETL) process involved in this analysis included data extraction from the source, data cleansing to ensure accuracy and consistency, and data transformation to prepare it for analysis. Finally, the data was loaded into the analytical environment for further processing.

Analysis on Dataset:

Introduction:

Each analysis focuses on a specific aspect of IPL data, aiming to uncover valuable insights and trends.

General Description:

A brief overview of the analysis methodology and approach adopted.

Specific Requirements, Functions, and Formulas:

Detailed explanation of the analytical techniques, functions, and formulas utilized in the analysis.

Analysis Results:

Presentation of key findings and insights derived from the analysis.

Visualization:

Visual representations such as charts, graphs, and diagrams to illustrate the analysis results effectively.

List of Analysis with Results:

1. Team Performance Analysis

● Analysis of win-loss records, run rates, and batting/bowling performances.

● Utilization of statistical measures such as mean, median, and standard deviation.

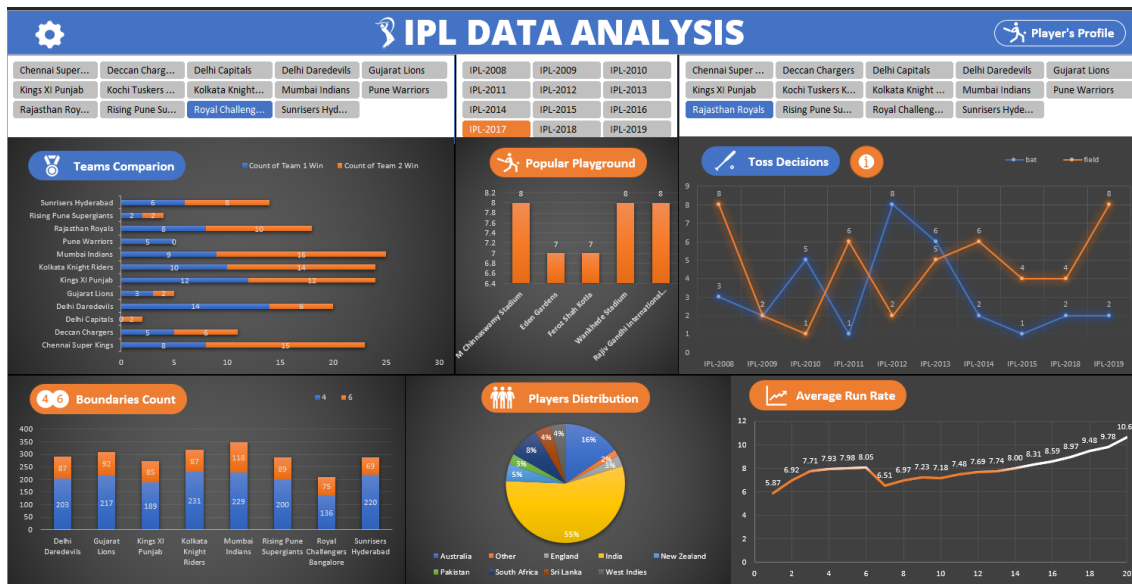● Visualization using bar charts and pie graphs.

2. Player Performance Analysis

● Examination of player statistics including runs scored, wickets taken, and batting averages.

● Calculation of performance indices like strike rate and economy rate.

● Visualization through scatter plots and histograms.
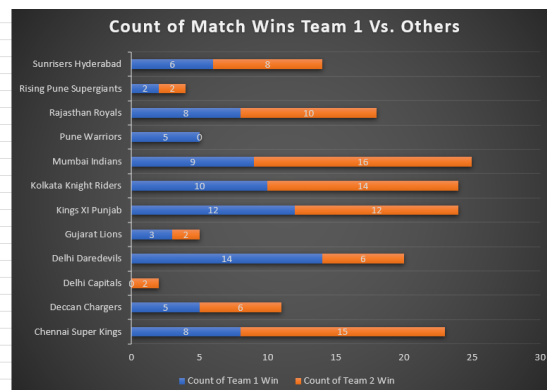
3. Match Outcome Prediction

● Predictive modeling using historical match data.

● Application of machine learning algorithms such as logistic regression or decision trees.
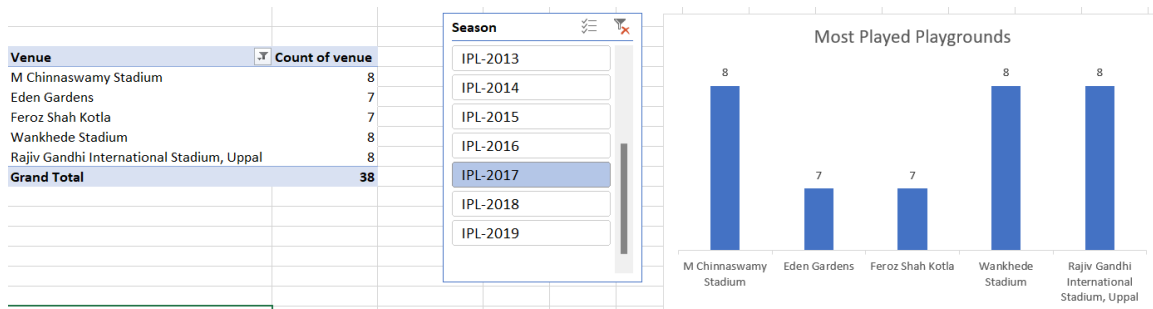
● Evaluation of model accuracy and predictive performance.

Dashboard:

Venue	Count of venue
M Chinnaswamy Stadium	8
Eden Gardens	7
Feroz Shah Kotla	7
Wankhede Stadium	8
Rajiv Gandhi International Stadium, Uppal	8
Grand Total	38

Season

| IPL-2013 |
| IPL-2014 |
| IPL-2015 |
| IPL-2016 |
| IPL-2017 |
| IPL-2018 |
| IPL-2019 |

Most Played Playgrounds

Venue	Count
M Chinnaswamy Stadium	8
Eden Gardens	7
Feroz Shah Kotla	7
Wankhede Stadium	8
Rajiv Gandhi International Stadium, Uppal	8

Count of Toss Decision	Toss Decision		
Season	bat	field	Grand Total
IPL-2008	3	8	11
IPL-2009	2	2	4
IPL-2010	5	1	6
IPL-2011	1	6	7
IPL-2012	8	2	10
IPL-2013	6	5	11
IPL-2014	2	6	8
IPL-2015	1	4	5
IPL-2018	2	4	6
IPL-2019	2	8	10
Grand Total	32	46	78

Count of Toss Decision	Toss Decision		
venue	bat	field	Grand Total
Brabourne Stadium	1	1	2
De Beers Diamond Oval	1		1
Dr DY Patil Sports Academy		1	1
Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium		1	1
Dubai International Cricket Stadium		1	1
Eden Gardens	4	3	7
Feroz Shah Kotla	3	3	6
JSCA International Stadium Complex	1		1
Kingsmead	1		1
M Chinnaswamy Stadium	1	1	2
MA Chidambaram Stadium, Chepauk	4	1	5
Maharashtra Cricket Association Stadium		1	1
Punjab Cricket Association IS Bindra Stadium, Mohali	1	5	6
Rajiv Gandhi International Stadium, Uppal	2	2	4
Sardar Patel Stadium, Motera	2	1	3
Sawai Mansingh Stadium	8	16	24
Sheikh Zayed Stadium	1	2	3
Subrata Roy Sahara Stadium	1		1
SuperSport Park		2	2
Vidarbha Cricket Association Stadium, Jamtha	1		1
Wankhede Stadium		5	5
Grand Total	32	46	78

Toss Decision Year-Wise

Toss Decision Venue-Wise
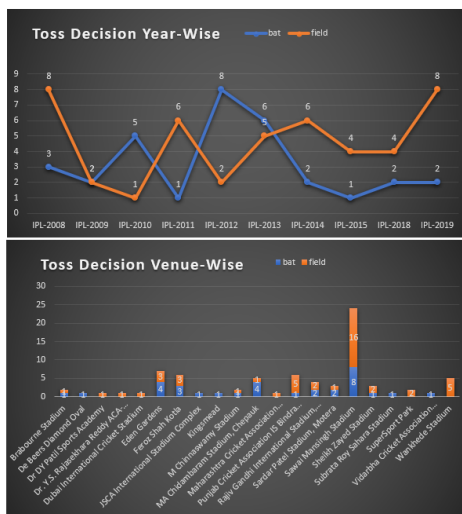
Teams

| Chennai Super Kings |
| Deccan Chargers |
| Delhi Capitals |
| Delhi Daredevils |
| Gujarat Lions |
| Kings XI Punjab |
| Kochi Tuskers Kerala |
| Kolkata Knight Riders |
| Mumbai Indians |
| Pune Warriors |
| Rajasthan Royals |
| Rising Pune Supergiants |
| Royal Challengers Bang... |
| Sunrisers Hyderabad |

Return to Dashboard

Count of Runs	Runs	
Team	4	6
Delhi Daredevils	203	87
Gujarat Lions	217	92
Kings XI Punjab	189	85
Kolkata Knight Riders	231	87
Mumbai Indians	229	118
Rising Pune Supergiants	200	89
Royal Challengers Bangalore	136	75
Sunrisers Hyderabad	220	69

Count of Boundaries Yearwise
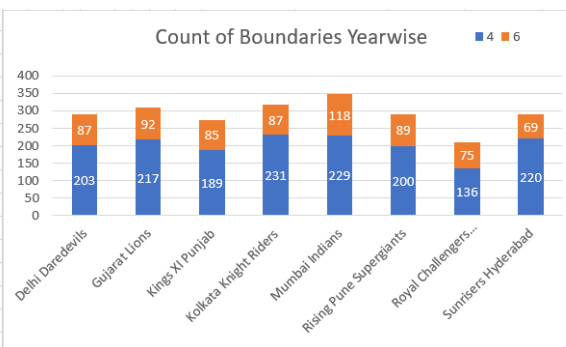
Season

| IPL-2013 |
| IPL-2014 |
| IPL-2015 |
| IPL-2016 |
| IPL-2017 |
| IPL-2018 |
| IPL-2019 |

Country	Number of Players
Australia	72
Other	8
England	14
India	257
New Zealand	22
Pakistan	13
South Africa	39
Sri Lanka	20
West Indies	19
Grand Total	**464**

Countrywise Players Distribution
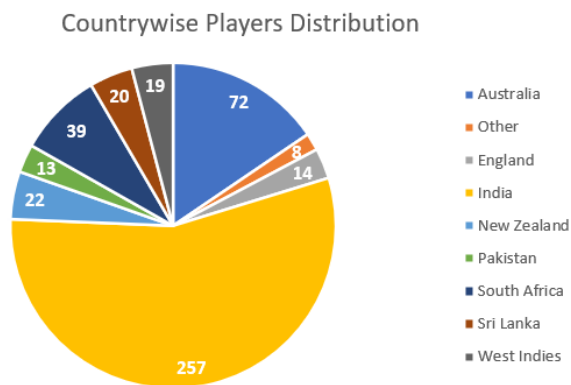
over	Count of over	Sum of total_runs	Run Rate
1	9566	9356	5.868283504
2	9466	10923	6.923515741
3	9385	12061	7.710815131
4	9353	12363	7.930931252
5		12391	7.977038627
6	9305	12489	8.053089737
7	9265	10060	6.514840799
8	9235	10727	6.969355712
9	9213	11097	7.226961902
10	9164	10960	7.175905718
11	9106	11358	7.483856798
12	9078	11641	7.693985459
13	9060	11692	7.743046358
14	8966	11949	7.996207896
15	8888	12309	8.309405941
16	8748	12524	8.589849108
17	8634	12914	8.9742877
18	8375	13236	9.482507463
19	7853	12806	9.78428626
20	6726	11882	10.59946476

Average Run Rate

Sum of batsman_runs	batsman
Season	MS Dhoni
IPL-2008	414
IPL-2009	332
IPL-2010	287
IPL-2011	392
IPL-2012	357
IPL-2013	461
IPL-2014	371
IPL-2015	372
IPL-2016	284
IPL-2017	290
IPL-2018	481
IPL-2019	436

batsman
Mohammed Siraj
MP Stoinis
MR Marsh
MS Bisla
MS Dhoni
MS Gony
MS Wade
Mustafizur Rahman

MS Dhoni
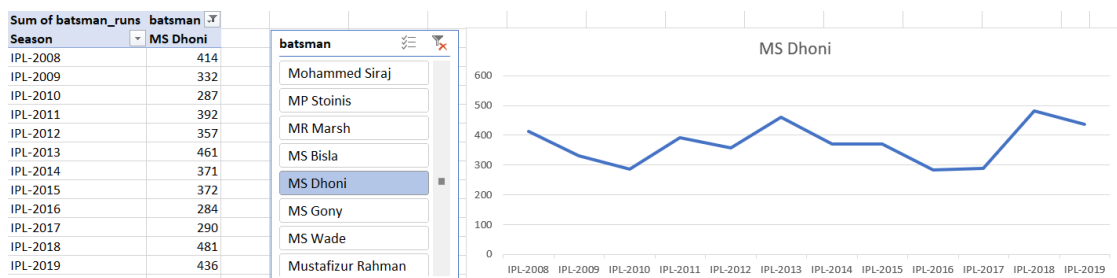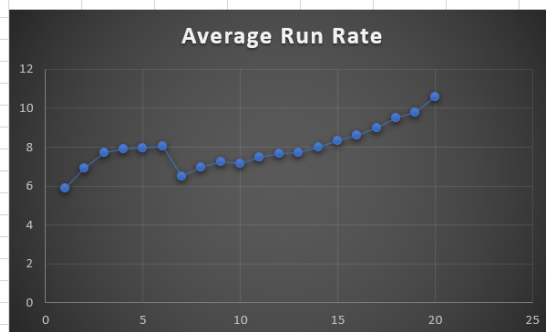
References:

Some of the codes where referred from the class activity and made changes accordingly to fit the data analysis of my project.

CERTIFICATE

This is to certify that **Akshat Sharma** bearing Registration no. **12218629** has completed **INT232** project titled, **"IPL Data Analysis"** under my guidance and supervision. To the best of my knowledge, the present work is the result of his original development, effort and study.

Signature and Name of the Supervisor

Designation of the Supervisor

School of …………………………………………….

Lovely Professional University

Phagwara, Punjab.

Date:

DECLARATION

I **Akshat Sharma** student of **Data Science** under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 18-04-2024   **Signature**

Name of the student: Akshat Sharma

Registration No:

12218629