



**ZIDIO
DEVELOPMENT**

INTERNSHIP PROJECT REPORT

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Internship Project Report

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Internship Period:	Feb 27, 2025 - March 27, 2025
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Company	Zidio Development
Department	Data Science & Analytics
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I. Introduction

This project aims to analyze Indian Premier League (IPL) data to identify trends and patterns in team performances, batting and bowling statistics, and winning consistency. Using Python and various data visualization techniques, we conduct an in-depth Exploratory Data Analysis (EDA) to uncover insights such as top-performing players, economy rates of bowlers, and factors influencing match outcomes. Our findings provide useful insights into IPL team strategies and player efficiency.

II. Objectives

The main objectives of my internship were as follows:

- Perform an Exploratory Data Analysis (EDA) on IPL datasets.
- Identify top players based on runs, wickets and strike rate.
- Analyze team consistency and winning patterns over seasons.
- Identify influential factors such as toss decisions and economy rates.
- Compare two teams past performances including batting and bowling

- Identify key factors that contribute to match wins.
 - Build dynamic dashboards with filters, graphs and charts.
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III. Methodology

During my internship, I employed various methodologies to achieve the project objectives. These included:

1. Data Collection

The dataset consists of two primary files:

- **Matches Dataset:** Contains details of matches, including teams, scores, toss decisions, and winners.
- **Deliveries Dataset:** Provides ball-by-ball data, including batsmen, bowlers, runs, and dismissals.
- These datasets are loaded using **Pandas** for structured analysis.

2. Data Preprocessing

- Handling missing values by checking for null entries and filling/removing them as necessary.
- Filtering out unnecessary columns to focus on relevant attributes such as runs scored, wickets taken, and economy rates.

3. Statistical Analysis

- Correlation analysis to determine relationships between match factors such as toss wins and match outcomes.
- Evaluating the consistency of teams by measuring their win percentage across seasons.

4. Visualization & Interpretation

- Using Matplotlib and Seaborn to create bar charts, histograms, pie charts, and heatmaps.
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IV. Project Description

This project, "**Exploratory Data Analysis of IPL Dataset: Identifying Patterns in Batting and Bowling Performances**," aims to analyze historical IPL data to uncover key insights about team strategies, player efficiency, and match-winning factors. Using Python and data visualization techniques, the study evaluates batting and bowling performances, identifies consistent teams, and explores the impact of toss decisions.

By analyzing datasets containing match-level and ball-by-ball details, the project seeks to answer critical questions such as:

- Which batsmen have the highest strike rates?
- Who are the most economical bowlers in IPL history?
- How do teams perform across seasons, and which teams are the most consistent winners?
- Does winning the toss significantly impact match results?

Through **statistical analysis and visualizations**, including bar charts, histograms, pie charts, and correlation heatmaps, this project provides valuable insights into the **factors influencing match outcomes** and the overall dynamics of the IPL.

The findings of this study can benefit cricket analysts, team strategists, and fans looking to understand performance trends in the league.

V. Results/Findings

After performing **Exploratory Data Analysis (EDA)** on the IPL dataset, several key insights were identified regarding batting, bowling, and team performances:

- The **player with the most runs in IPL history** is **Suresh Raina**, demonstrating his consistency and reliability as a batsman.
 - **Chris Gayle** holds the record for **most sixes in IPL history**, highlighting his aggressive batting approach and power-hitting ability.
 - The most **economical bowlers** maintained an economy rate under 6.0, effectively restricting runs in crucial overs.
 - Interestingly, the **highest** as well as the **lowest team total in IPL history** belongs to **Royal Challengers Bangalore (RCB)**, showing their fluctuating performance over different seasons
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VI. Discussion

The internship provided valuable insights into the field of digital marketing and consumer behavior. One of the main challenges faced was understanding and adapting to the rapidly changing social media algorithms, which was addressed by continuous learning and staying updated with the latest trends. This experience has enhanced my skills in data analysis, strategic planning, and creative content development. Additionally, working in a collaborative environment has improved my teamwork and communication abilities.

VII. Conclusion

In conclusion, my internship at Zidio Development was a highly rewarding experience. I successfully met the objectives set at the beginning of the internship and made meaningful contributions to the project. This experience has been instrumental in shaping my career aspirations in Data Science and Analytics, and I am now more confident in my ability to handle and visualize data more effectively.
