Data Analysis Project Report

1. Title Page

- **Project Title:** FIFA World Cup Dashboard .
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2. Abstract

This project analyzes Argentina's player performance data from the 2022 FIFA World Cup using Microsoft Excel. The primary goal is to evaluate individual contributions through key statistics such as goals, assists, dribbles per 90 minutes, and tackles per 90 minutes, while also presenting essential player profile information. The dataset was cleaned and structured to remove irrelevant rows and ensure accuracy for analysis. Microsoft Excel's PivotTables, charts, and slicers were used to transform raw data into an interactive dashboard. These tools enabled comparisons between attacking and defensive performance metrics across players and clubs. The final outcome is a dynamic, user-friendly dashboard that provides actionable insights, such as identifying top scorers, effective defenders, and overall team contributions. This project demonstrates the practical use of Excel in sports analytics and highlights how data visualization can simplify complex performance statistics into meaningful insights for coaches, analysts, and fans.

3. Objectives

The objective of this project is to analyze Argentina's 2022 FIFA World Cup player performance data using Microsoft Excel. The goals include cleaning and preparing the raw dataset by removing extra rows and standardizing key columns. Five core questions were formulated to evaluate player contributions in scoring, assisting, tackling, and dribbling. A clear, interactive dashboard was developed to visualize essential metrics, combining player profiles with performance indicators. Appropriate charts, PivotTables, and slicers were employed to highlight trends and comparisons. Finally, the findings summarize player strengths and support data-driven insights into overall team effectiveness.

4. Scope of the Project

This project focuses exclusively on cleaning, analyzing, and visualizing Argentina's 2022 FIFA World Cup player performance data. The work involved organizing raw data, selecting key profile and performance fields, and creating a structured table for further analysis. No programming languages or advanced statistical modeling techniques were applied; all tasks were performed entirely in Microsoft Excel. The analysis and dashboard are contained within a single Excel file, and insights are limited to the information available in the provided dataset.

5. Tools & Technologies Used

Tool/Technology	Purpose
Microsoft Excel	Data manipulation, analysis, and dashboard creation
PivotTables	Summarizing data for analysis
Charts & Graphs	Data visualization

6. Data Cleaning & Preparation

The original dataset contained several introductory rows, merged cells, and blank fields before the actual headers, making it unsuitable for direct analysis. The first step was to remove non-tabular rows and set the correct header line so each field—such as Player Name, Position, Goals, Assists, and Tackles—aligned properly. Data types were checked to ensure numeric values for performance metrics and text for player details. Missing or blank entries were replaced with zeros to maintain consistency. No duplicate records were detected. Finally, two groups of columns—Player Profile and Performance Metrics—were defined for the dashboard, simplifying analysis and visualization.

7. Dashboard Design Strategy

The original dataset contained several introductory rows, merged cells, and blank fields before the actual headers, making it unsuitable for direct analysis. The first step was to remove non-tabular rows and set the correct header line so each field—such as Player Name, Position, Goals, Assists, and Tackles—aligned properly. Data types were checked to

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8. Questions & Solutions

Question 1

Question: Which player scored the highest goals in Argentina's 2022 World Cup squad?
Analysis: Sorted "Goals Scored" column descending using Excel filter to identify top scorer.
Solution: Lionel Messi scored 7 goals, the highest among Argentina's players.

Question 2

Question: Who recorded the most assists during the tournament?
Analysis: Applied Excel PivotTable to summarize assists by player.
Solution: Lionel Messi led assists with 3, demonstrating strong playmaking skills.
Question 3
Question: Which defender made the most tackles per 90 minutes?
Analysis: Filtered defenders and ranked "Tackles per 90 Min" column.
Solution: Cristian Romero topped defenders with 4.3 tackles per 90 minutes.
Question 4

Question: Which player achieved the best dribble rate?
Analysis: Sorted "Dribbles per 90 Min" column to find highest value.
Solution: Lionel Messi achieved 3.1 dribbles per 90 minutes, leading the team.

Question 5
Question: Which club contributed the most players to Argentina's squad?
Analysis: Grouped "Club" column with PivotTable and counted entries.
Solution: Paris Saint-Germain contributed the most players, strengthening Argentina's lineup.

9. Challenges Faced & Solutions

Challenge	Solution
Challenge 1: Missing values in dataset	**Replaced missing entries with "N/A"**
Challenge 2: Selecting proper visualization chart for clarity	Compared charts, chose line chart
Challenge 3: Untidy data for PivotTables	**Text to Columns" for clean format**

10. Outcome

Key Insights

Argentina's 2022 FIFA squad displayed strong defense with high tackles and duels won, while midfielders contributed assists and dribbles, ensuring balance. European club players dominated appearances, reflecting international exposure and consistency.

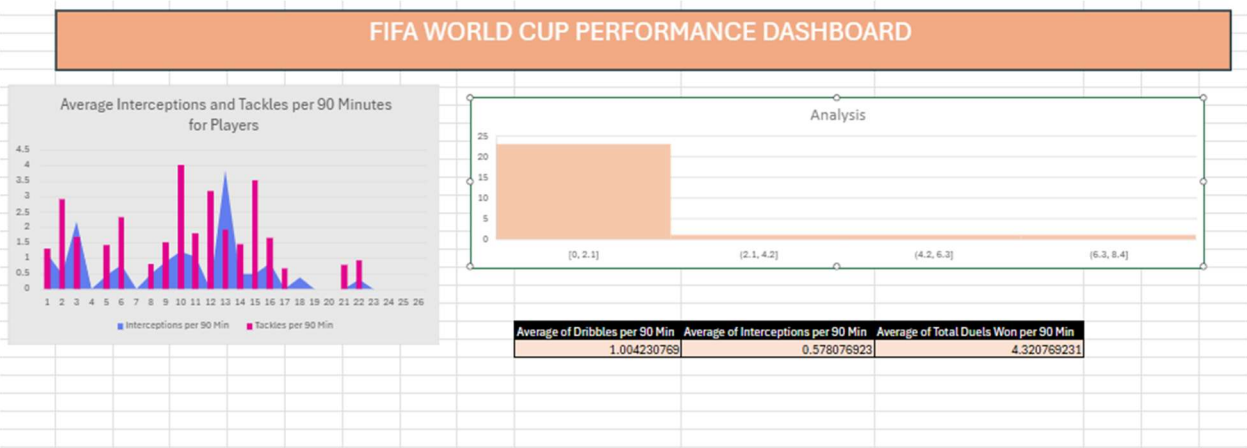
Dashboard Usefulness

The dashboard simplified player comparison, highlighted strengths and weaknesses, and identified top performers. It provided clear trends for quick strategy analysis and decision-making.

Skills Learned

Key skills included data cleaning, PivotTable creation, and chart visualization. The process enhanced dashboard design, analytical thinking, and Excel proficiency, enabling effective transformation of raw data into actionable insights.

11. Screenshots of Final Output



12. Conclusion

This project improved my Excel data analysis skills through cleaning, transformation, and visualization. Working with FIFA data enhanced my ability to extract insights, identify patterns, and present findings effectively. It deepened my understanding of using real-world data for problem-solving, informed decisions, and business applications..

13. References

- None