# Data Analysis Project Submission Report Template

### 1. Title Page

* **Project Title:** e.g., "FIFA WORLD CUP DATA"
* **Submitted By:**
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* **Course:** Fundamental Data Analysis
* **Instructor Name:**
* **Institution:** Christ University
* **Date of Submission:** 22/09/2025

### 2. Abstract

This project aims to perform a comprehensive exploratory data analysis on fifa world cup data. The primary goal is to identify key sales trends, analyze customer behavior, and create a dynamic dashboard for stakeholders. The analysis was conducted using Microsoft Excel, leveraging its powerful functions for data cleaning, transformation, and visualization. The final outcome is a clear, interactive dashboard that provides actionable insights to improve sales strategies and inventory management.

### 3. Objectives

Clearly list the project goals:

* Clean and prepare the raw dataset for analysis(if needed).
* Formulate and answer five key questions based on the dataset.
* Create a comprehensive, user-friendly dashboard that visualizes key metrics.
* Use appropriate charts and graphs to effectively communicate insights.
* Summarize the findings and their business implications in a clear and concise manner.

### 4. Scope of the Project

Explain what the project includes and any boundaries:

* Focused on data cleaning, analysis, and visualization only.
* No programming languages (like Python or R) or advanced statistical modeling used.
* All work is contained within a single Excel file.
* Analysis is limited to the provided dataset.

### 5. Tools & Technologies Used

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

### 6. Data Cleaning & Preparation

* Describe the initial state of the data.
* Detail the steps taken to clean the data (e.g., handling missing values, removing duplicates, correcting data types).
* Explain any new columns or features created for the analysis.

### 7. Dashboard Design Strategy

### Layout:

### Top: Key KPIs (Total Goals, Total Assists, Matches Played).

### Left: Filters for *Player, Position, Club*.

### Center: Bar charts for top performers.

### Right: Line/Scatter plots for player performance metrics.

### Visualization Choices:

### Bar Chart: Top goal scorers & assisters.

### Pie Chart: Player distribution by position.

### Line/Scatter: Defensive metrics (tackles, duels, interceptions).

### KPI Cards: Total appearances, goals, assists.

### Interactive Elements:

### Slicers for *Position* and *Club*.

### Timeline filter for *Appearances*.

### Question 1: Which player scored the most goals for Argentina in World Cup 2022?

### Analysis: Sorted *Goals Scored* column.

### Solution: Lionel Messi scored 7 goals, the highest in the squad.

### Question 2: Who provided the most assists?

### Analysis: Checked *Assists Provided* column.

### Solution: Lionel Messi again, with 3 assists, making him the top creator.

### Question 3: Which player had the best defensive stats (tackles + interceptions)?

### Analysis: Created a combined metric Tackles + Interceptions.

### Solution: Rodrigo De Paul led with strong defensive numbers (≈1.8 tackles & 1.2 interceptions per 90).

### Question 4: Who was the most consistent dribbler?

### Analysis: Sorted *Dribbles per 90 Min*.

### Solution: Lionel Messi dominated with 6.83 dribbles per 90, the best in the team.

### Question 5: Which club contributed the most players to Argentina’s squad?

### Analysis: Counted frequency of *Club* column.

### Solution: Atletico Madrid & Sevilla had multiple players representing Argentina.

### 9. Challenges Faced & Solutions

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| **Challenge** | **Solution** |
| **Challenge 1:** Difficulty in handling missing values | **Solution:** e.g., "find and replace" feature to fill in missing data points with "N/A" or "Unknown" |
| **Challenge 2:** Choosing the right chart type to visualize a specific trend | **Solution:** Experimented with different chart types (line, bar, pie) and settled on a line chart for clarity in showing the trend over time |
| **Challenge 3:** Data was not in a tidy format for PivotTables | **Solution:** Used the "Text to Columns" feature and rearranged data columns to create a clean table |
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### 10. Key Insights Gained:

### Lionel Messi was Argentina’s most impactful player in the 2022 FIFA World Cup, contributing the highest goals (7) and assists (3).

### Argentina’s midfielders like Rodrigo De Paul and defenders like Cristian Romero played crucial roles in tackles, interceptions, and duels, ensuring defensive stability.

### The squad distribution by club highlighted the global spread of Argentinian players, with major contributions from European clubs such as Atletico Madrid, Juventus, and Sevilla.

### By creating new performance metrics (e.g., *Goals + Assists* = Goal Contributions), we identified Messi and Alvarez as the most influential attackers.

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### 11. Screenshots of Final Output

### 12. Conclusion

This mini-project helped me strengthen my data analysis skills using Microsoft Excel. I gained practical insights into data cleaning, transformation, and creating effective visualizations to communicate findings. The hands-on analysis of a real-world dataset also enhanced my understanding of how data can be used to solve business problems and make informed decisions.

### 13. References

* List any external resources, articles, or tutorials used.