Midterm Pair Project Report

1. Introduction

This project aims to perform **Exploratory Data Analysis (EDA)** on the **FC 26 FIFA Player Data** from Kaggle. The dataset contains information about football players' attributes, performance, and demographics used in FIFA 26. The goal is to extract meaningful insights and visualize key trends across players, nations, and positions.

2. Exploratory Data Analysis (EDA)

2.1 Player Age Distribution

The majority of players are between **20–28 years old**, with a clear peak at **around 25 years** — an age where most players reach their physical and technical prime. Fewer players remain active beyond 35 years, reflecting the typical athletic career span in professional football.

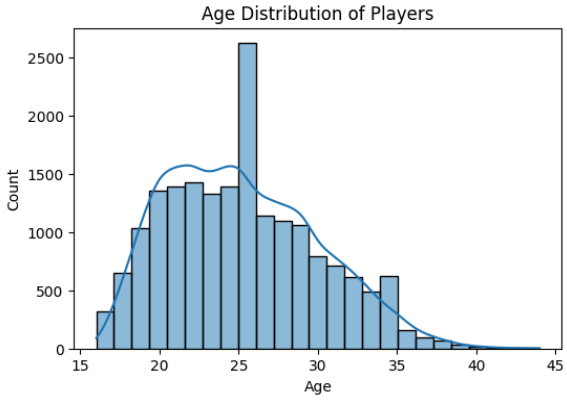

Fig.1 player age distribution

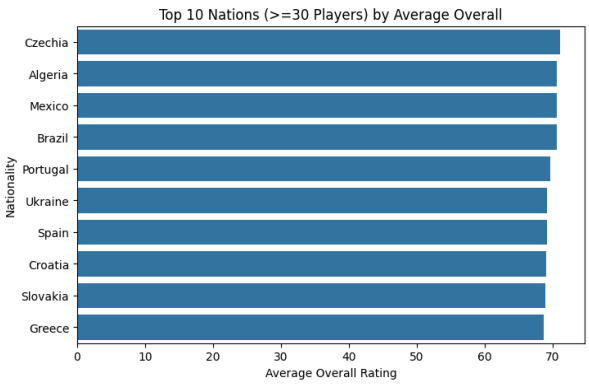

Fig.2 Nations by Average Overall

3.2 Nationality and Rating

The dataset shows a balanced global distribution, but when filtering nations with ≥30 players, **Czechia, Algeria, Mexico, and Brazil** rank highest in **average overall rating (~70–71)**. This suggests smaller footballing nations can still produce high-rated players, possibly due to top individual talents raising national averages.

3.3 Top-Rated Players

The top players list is led by **Mohamed Salah (Egypt)** and **Kylian Mbappé (France)**, both with an overall rating of **91**. Other elite players include **Ousmane Dembélé**, **Virgil van Dijk**, and **Erling Haaland**, each with 90+. These names represent a blend of offensive and defensive excellence, covering multiple leagues and continents.

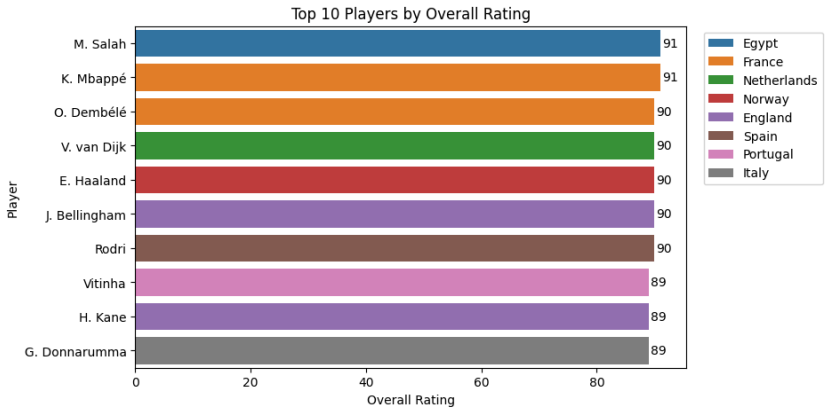

Fig.3 Top 10 Players by Overall Rating

3. Discussion and Insights

- The dataset reflects **realistic football dynamics** where player development peaks in mid-20s.
- **Top nations by average rating** are not necessarily traditional football giants, suggesting the dataset's balanced global scouting coverage.
- **Positional analysis** confirms the specialization of roles: attackers prioritize pace and dribbling, while defenders focus on physical and tackling skills.
- **Elite players** come from diverse backgrounds, reinforcing football's international appeal and competitive nature.

4. Conclusion

The EDA of the FIFA 26 dataset effectively reveals the structure, diversity, and distribution of modern football players. It demonstrates how age, nationality, and skill specialization collectively shape the football landscape.

The visualizations provide an engaging story: football remains a globally diverse sport where data analytics can reveal patterns beyond raw performance — bridging the gap between statistics and real-world athletic insight.