Case Study: Unveiling Football Insights with Tableau: Exploring FIFA Dataset through EDA Analysis

## Background:

A sports analytics company is interested in gaining insights from a comprehensive FIFA football dataset. The dataset contains information about players, teams, matches, and various performance metrics from different seasons of FIFA tournaments. The company aims to utilize Tableau to perform Exploratory Data Analysis (EDA) on this dataset to uncover trends, patterns, and actionable insights.

## Objective:

The primary objective of this case study is to conduct an EDA using Tableau on the FIFA football dataset. The analysis will focus on player attributes, team performance, match outcomes, and any interesting correlations. The insights derived from this analysis will help the company make data-driven decisions, support scouting efforts, and provide insights for tactical strategies.

## Data Collection:

The company has obtained a FIFA football dataset containing player attributes such as age, skill ratings, position, and teams they belong to. The dataset also includes team performance metrics and match statistics for various FIFA tournaments.

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## Analysis Steps:

### 1. Data Exploration and Preparation:

Load the FIFA football dataset into Tableau and inspect the structure of the data.

### 2. Player Analysis:

Explore player attributes such as age, skill ratings, preferred positions, and nationality.

Visualize player distribution by age, skill level, and position.

Identify top-performing players based on skill attributes.

### 3. Position Analysis:

Analyze the nationalities of players and explore the distribution of players from different countries.

Investigate player representation in various football leagues.

### 4. Insight:

Summarize the key insights from the EDA analysis.

Provide actionable recommendations for team selection, player development, and strategic decisions. Create a story for the same.

Please find the below specific questions to be solved atleast but try to follow the analysis steps so that you will be able to figure out your own questions to be solved and that will improve the problem solving skills.

Specific Questions:

1. Solve the following questions:
   1. Using the related chart, Show the countries that have the highest number of players playing for them
   2. Using the Football dataset with the help of a visualization the total no of skilled moves all the players have on each of their preferred playing feet.
   3. Using the related chart, display the total value for each nationality and for each club within the nationality. “Use the value in number for measure”
2. Solve the following questions:
   1. Build a suitable chart to show year year-wise total number of players who joined FIFA.
   2. Build a suitable chart to show position-wise average wages of the players and find out the highest-paid position.
   3. Using the bobble chart or any other suitable chart, show the top 10 player names based on their wages.
   4. Show the table with top n and bottom n players based on their potential.
   5. Show the two bar charts with the top 10 players based on their wages and their respective total weak foot value.
3. Solve the following questions:
   1. Display the table that shows player age in descending order with the following details. 1. ID, 2. Name, and Age.
   2. Show the distribution of the players using the body type.
   3. Using the forecast method predict in next 5 years how many might join from 2019 to 2023.
   4. Using the tree chart, build the top 10 native countries based on the number of players that they have.
4. Solve the following questions:
   1. Using the bar and line combined chart, show the average value of players and wages varied over the years according to the data.
   2. Using the horizontal bar chart, find out the youngest players' country by applying the color option.
   3. Using the pie chart find out the top 10 players with weak feet.
   4. Using the histogram, find out the distribution of players based on the release clause.
5. Build the informative story board
   1. Use the related charts that you have built and create one story board.

Note: The inclass quiz questions asked from the above specific questions, however you can frame different questions and solve them through Visual analytics and derive valuable dashbaords. Once you complete the case study, you should uploade the solution tableau file in the ass