TITLE:

FIFA 2018 Player Valuation and Performance Analysis

- **Objective**: To uncover the relationship between player valuations, performance, and global distribution.

- **Data Source**: FIFA 2018 dataset featuring over 17,000 players with 70 attributes.

: My presentation is on the valuation of FIFA 2018 players, where we discover insightful trends and patterns using Tableau.

: The FIFA 18 dataset contains comprehensive information on players, including basic details like name, age, nationality, and club, as well as a wide array of performance metrics and attributes.

My presentation consists of the following six points:

1. Project Flow Structure
2. Visualizations or Results
3. Dashboard Integration
4. Challenges Faced
5. Future Goals

1. Project Flow Structure

Let's begin by looking at the journey I have taken starting from the raw data to creating different insights. So the steps i took are listed as follows:

1. Data Preparation or Acquisition:

Loading the fifa 2018 csv file into tableau and the other important thing in this step is ensuring data quality.

2. Exploratory Data Analysis:

Conducted an initial EDA to understand the data structure, visualizing distributions of player attribute and spot trends

3. Formulation of Questions:

We began by formulating questions to guide our analysis. These questions aimed to discover the factors influencing player valuations, the correlation between player attributes and performance, and trends in player potential across different geographies.

4. Visualization Selection:

We selected specific visualizations that best answered our research questions. Each visualization was chosen for its ability to clearly convey the insights related to our key questions

5. Dashboard Creation:

We then developed an interactive dashboard, integrating various visualizations that allow users to explore data

6. In-Depth Analysis:

After getting a dashboard it leads us to draw significant conclusions about the factors driving player market value and performance especially.

7. Challenges and Solutions:

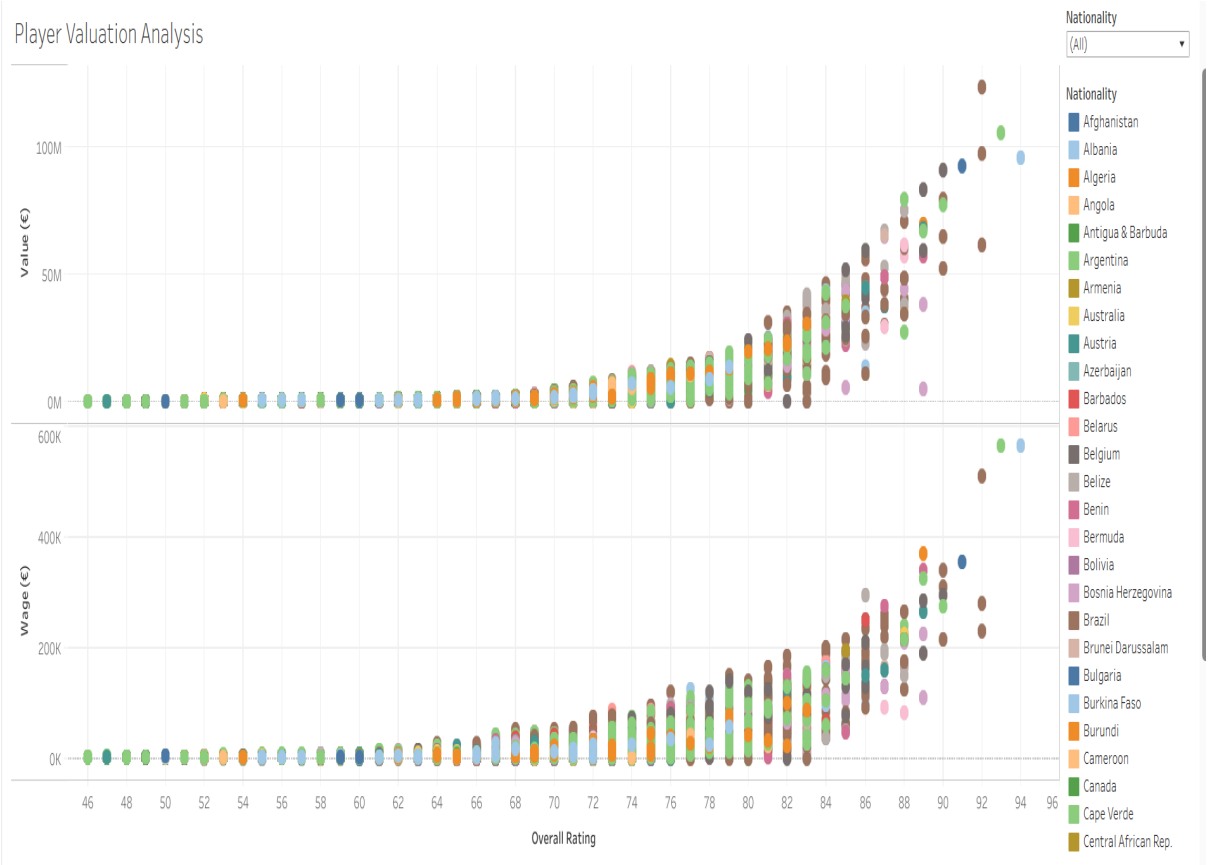
Throughout our project, we faced challenges such as data complexity and the selection of the most appropriate visual tools, which we overcame through a combination of creative problem-solving

2. Visualizations and Results

Now, let's explore the visualizations that formed the core of our analysis. Each visualization was carefully crafted to answer our key questions about the FIFA 2018 dataset

1. Player Valuation Analysis

Question: " How does a player's market value correlate with their overall rating?"

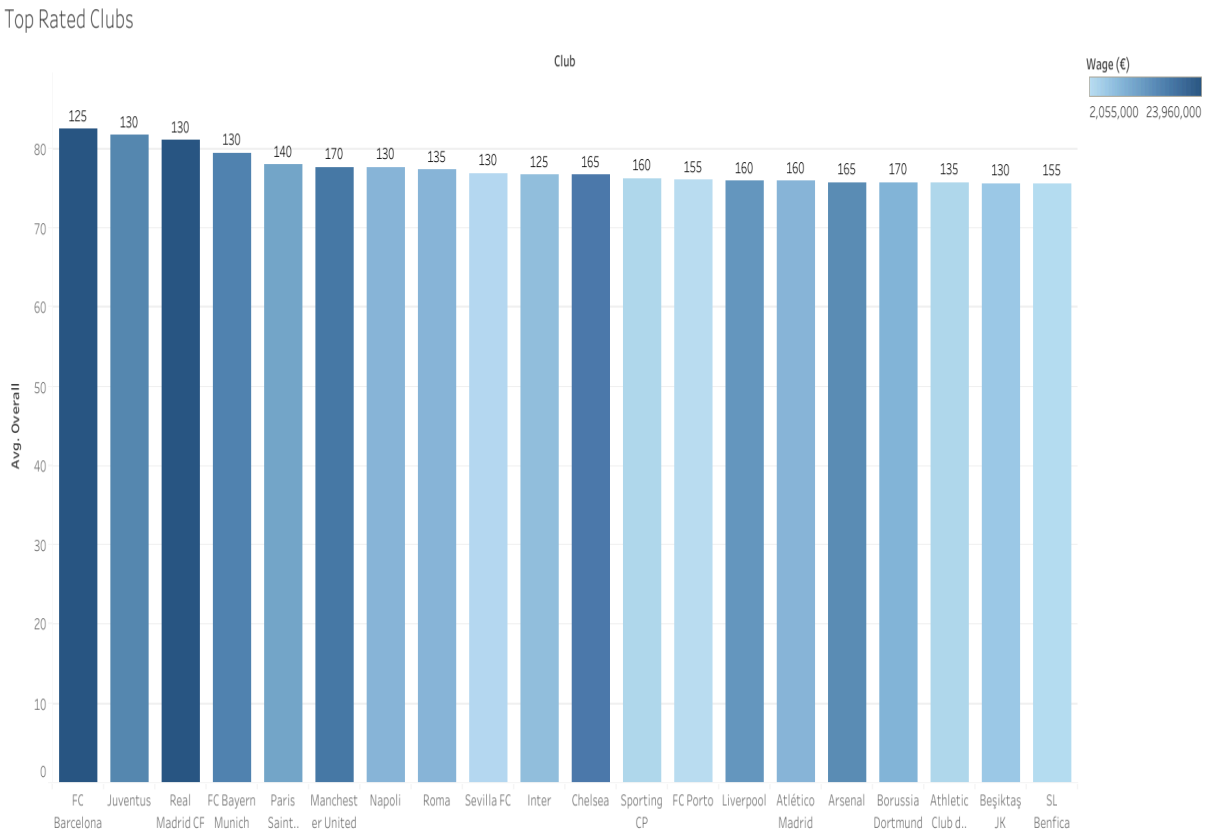


Insight: "This scatter plot reveals a strong correlation between a player's overall rating with their market value and Wage. As we can see from the visualization as the overall rating of a player increases, their value as well as wages tends to increase as expected, so we can see from the above trend that those variables have a direct relation with each other.

Rationale: We chose a scatter plot as it clearly demonstrates relationships between two quantitative variables.

2. Top Rated Clubs

Question: Which clubs have the highest average player ratings?



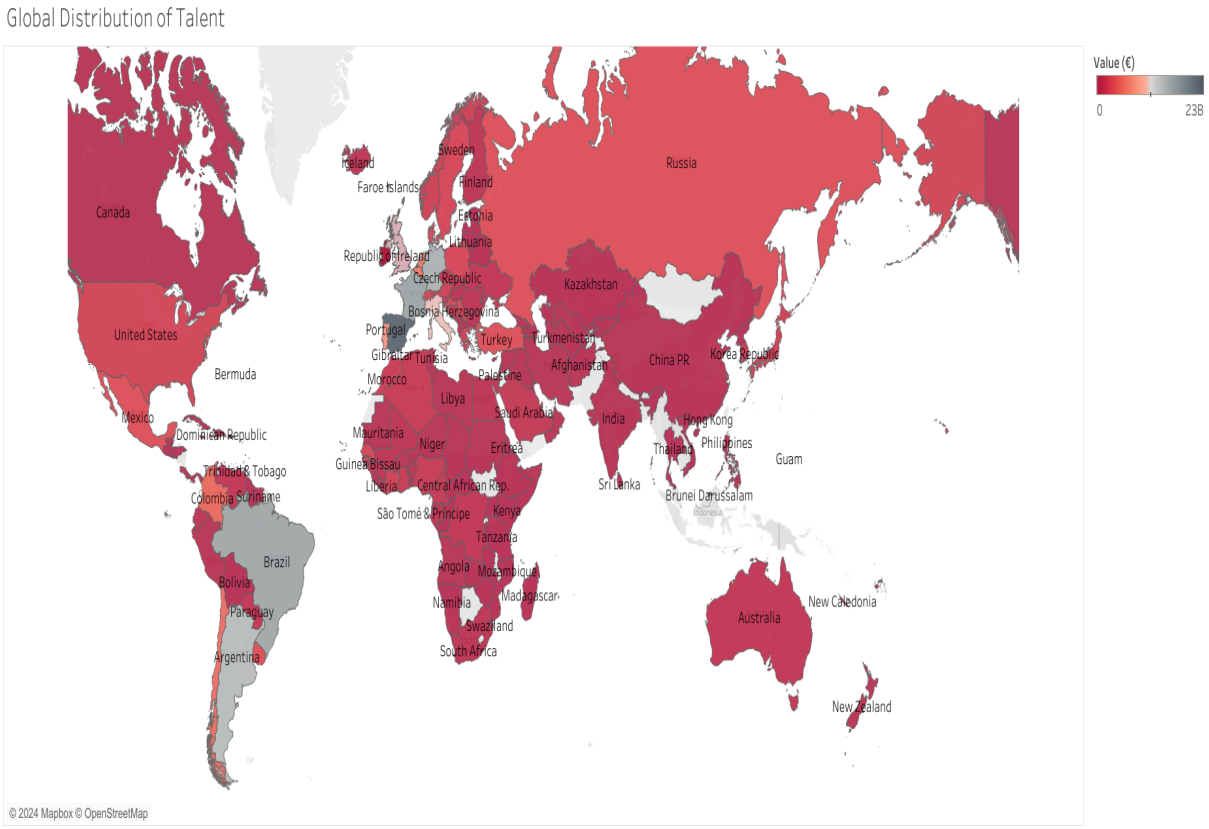
Insight: This bar chart highlights Barcelona, Juventus and Real Madrid as the top three top rated clubs, showing the concentration of talent in certain top-tier clubs.

The other thing we can get from this bar chart is if a tournament or a cup is prepared and if those clubs participate in the tournament we would give the odds or probabilities to these top rated teams to win the championship of the tournament.

Rationale: A bar chart offers a straightforward way to compare categories—in this case, clubs.

3. Global Distribution of Talent

Question: "How is football talent distributed globally?"

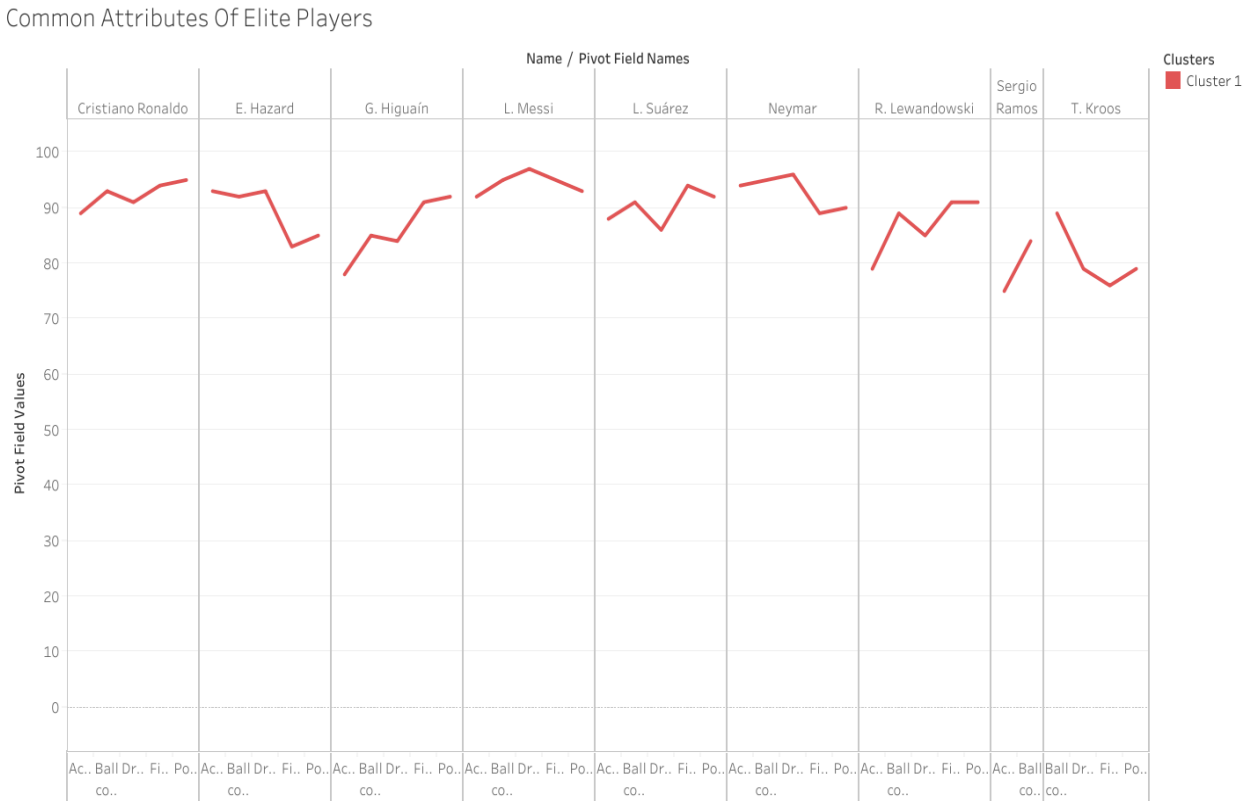


Insight: This map illustrates the global spread of talent. We can see high concentrations of top-rated players in countries like Spain and Brazil

Rationale: "A map is ideal for showcasing geographical distribution, making it easy to identify global hotspots of football talent.

4. Common Attributes of Elite Players

Question: What common attributes are shared by elite players? Or it can be said what factors do determine the overall rating of a player

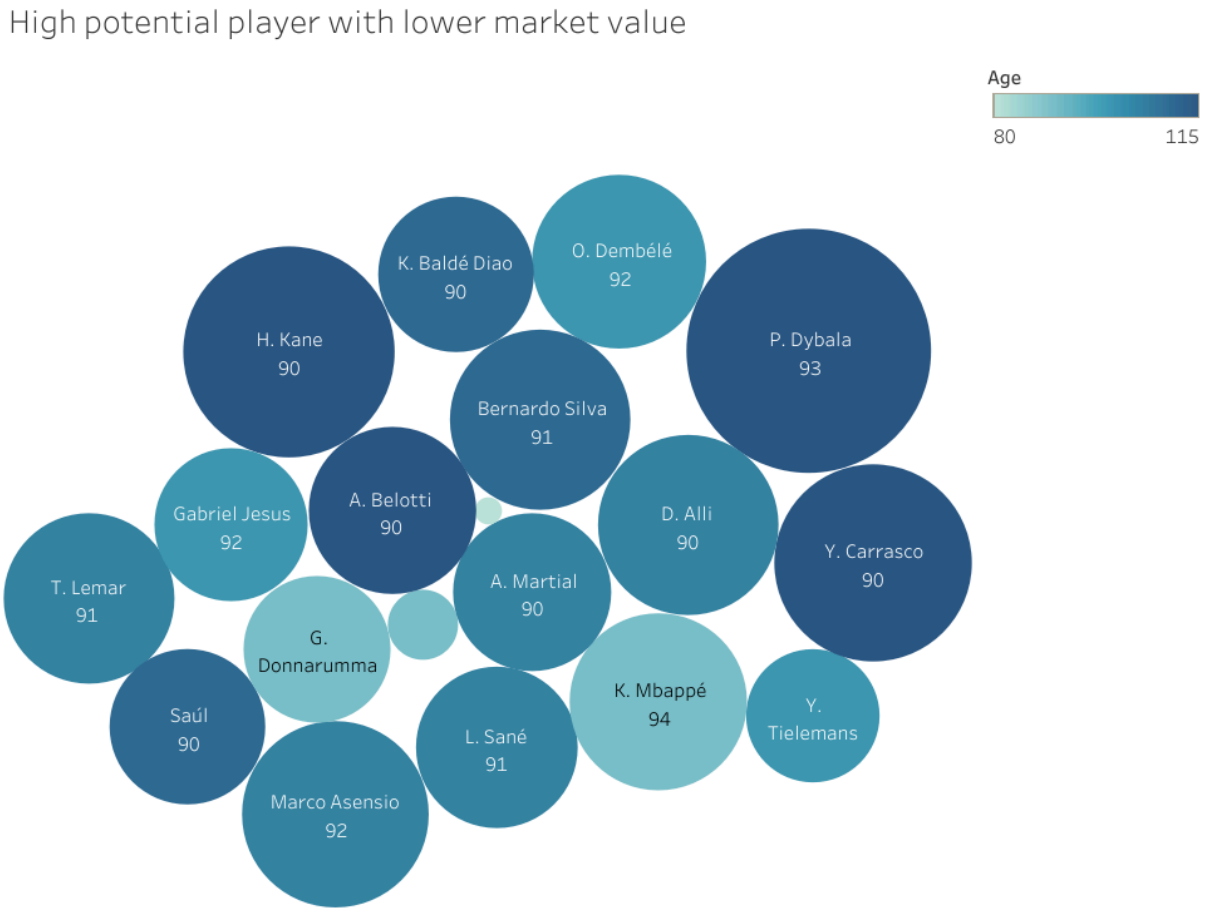


Insight: This line chart compares attributes like Acceleration, dribbling, and Ball control among top players, revealing that players with high overall ratings also have a high value in those attributes. The other thing we can notice from this line graph is, it is divided into multiple clusters based on the score they have for those attributes, in the above visualization cluster one which is the top cluster is displayed but in the worksheet we have the choice to see all the clusters.

Rationale: "A line chart is great for comparing multiple variables across a category—in this case, player attributes."

5. High Potential Players with Lower Market Value

Question: Which players have high potential but are currently undervalued in the market?

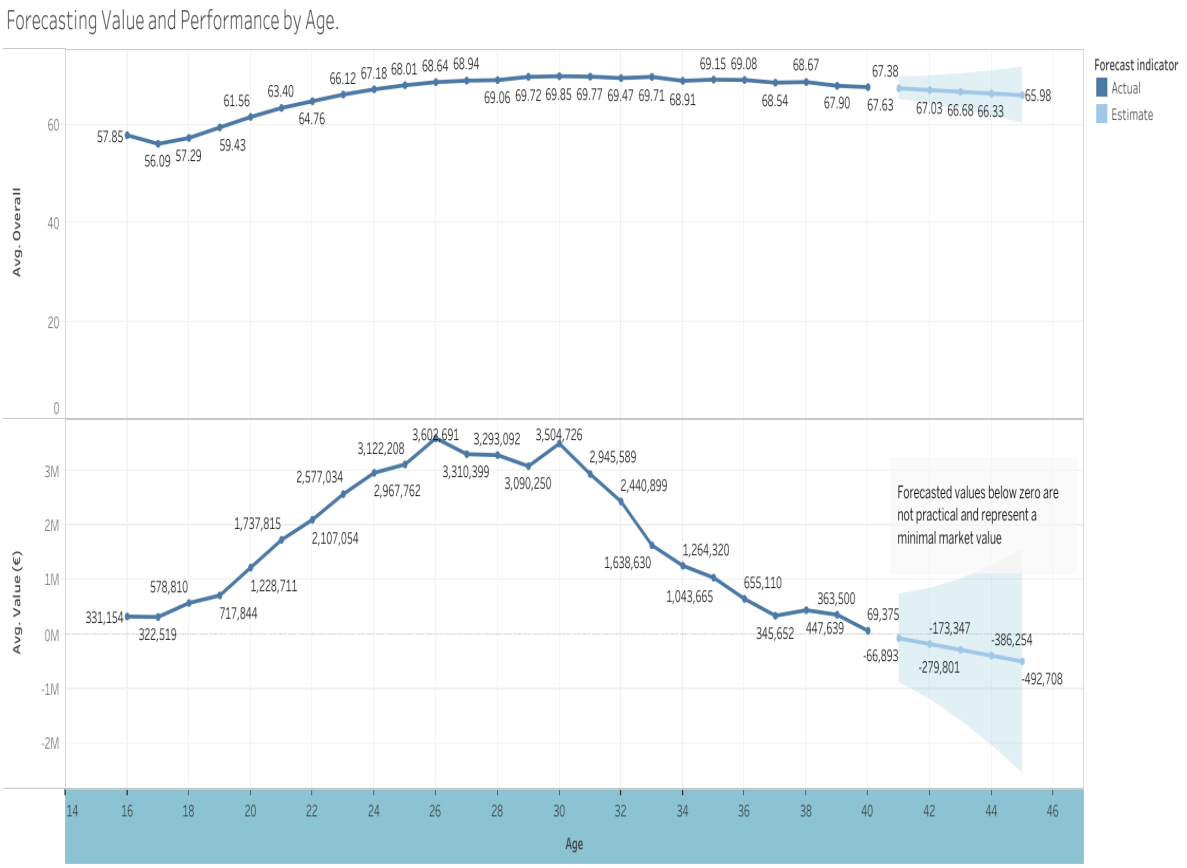


Insight: This bubble chart uncovers hidden gems – players with high potential yet lower market values, like Mbappe. This visualization can be used by scouts or club managers to look for players with high potential in the future but with a low value relatively in the market.

Rationale: Bubble charts are effective for displaying three dimensions of data and spotting outliers.

6. Forecasting Value and Performance by Age

Question: How do player values and performances change with age?"



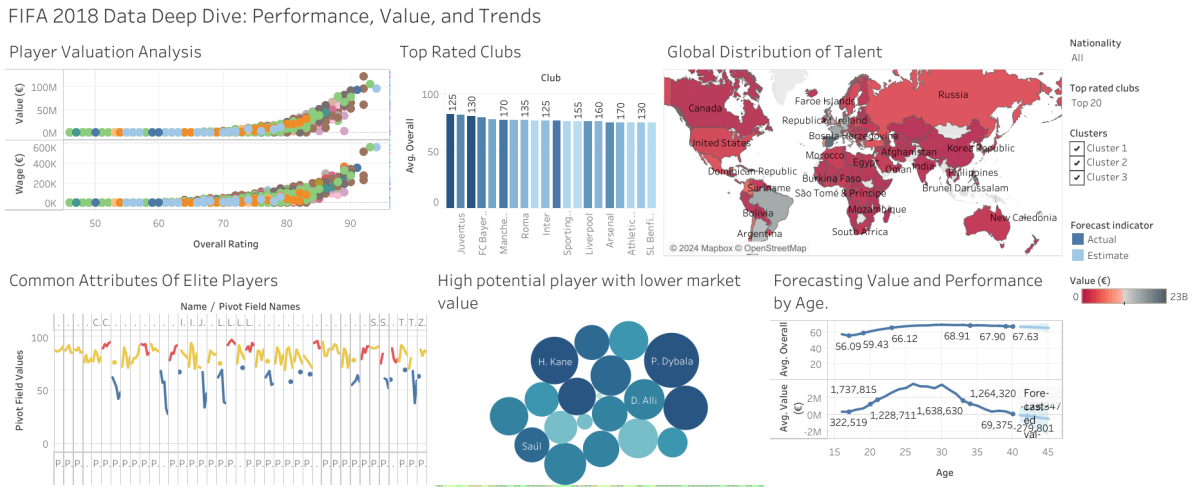
Insight: This forecast shows a typical peak age for player performance and value, with a notable decline as players get older. The other thing we can notice from this visualization in addition to the prediction is that players aged between 25 and 30 tend to have a higher market value. This may be when players reach their peak stage in their football career at that age.

Rationale: "Line charts with forecasting capabilities allow us to project future trends based on current data."

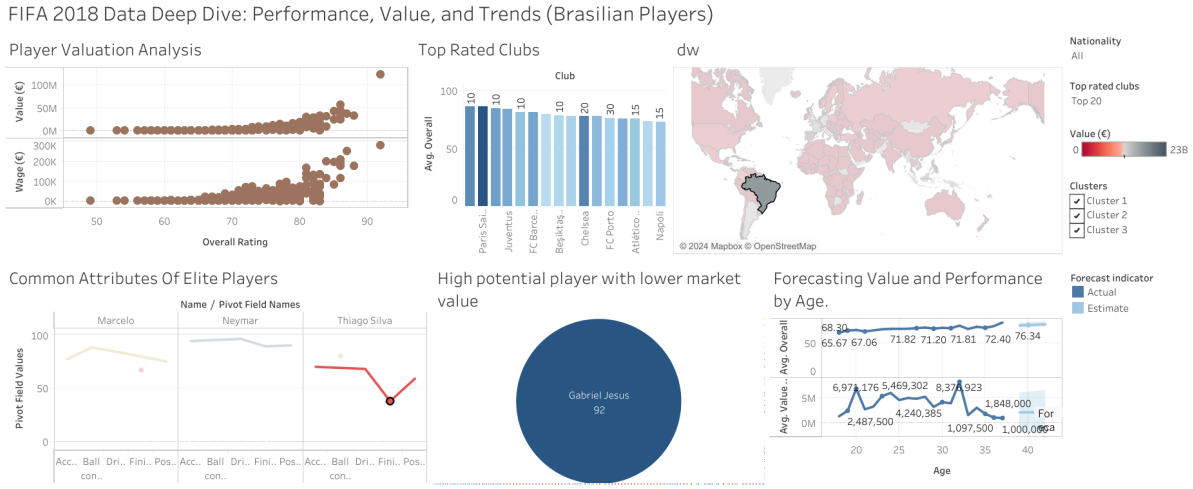
3. Dashboard Integration

In conclusion, our dashboard not only answers specific questions about player valuations and performances but also provides a comprehensive tool for exploring the broader landscape of football talent.

The given dashboard will allow users to interact with the data, such as filtering by nationality or club, providing a dynamic tool for deeper exploration.



We can use the above dashboard to see how each visualization interacts with each other, for instance we can use the Global Distribution of Talent as a filter and see how players of those specific countries are distributed. Let's use Brazil as our filter and see the distribution of Brazilian players.



4. Challenges Faced

Complexity of Data Integration: Integrating data from multiple columns or attributes posed a challenge, especially when aligning player statistics across different formats.

Performance Optimization for Large Datasets: As the volume of data grew, so did the load times for our visualizations. To combat this, we used queries and filters to keep simplifying our visualizations for optimal clarity and insight.

Advanced Analytics Features: Incorporating more sophisticated analytics features like clustering and forecasting was challenging due to their complexity and as there is no time in the column it was challenging to use these analytics in general.

5. Future Goals

1. **Using Additional Data resources**

This means by collecting different datasets like fifa 2017, fifa 2016, we can discover which player is declining and getting better and to identify trends over time

2. **Social Sentiment Analysis**

Analyzing social media sentiment could give us insights into the public perception of players, which can influence market value and sponsorship opportunities.

3. **Integrate player injury and health status**

By including data on player injuries and overall health, we can provide a more holistic view of a player's value and risk, offering a crucial tool for club management decisions.