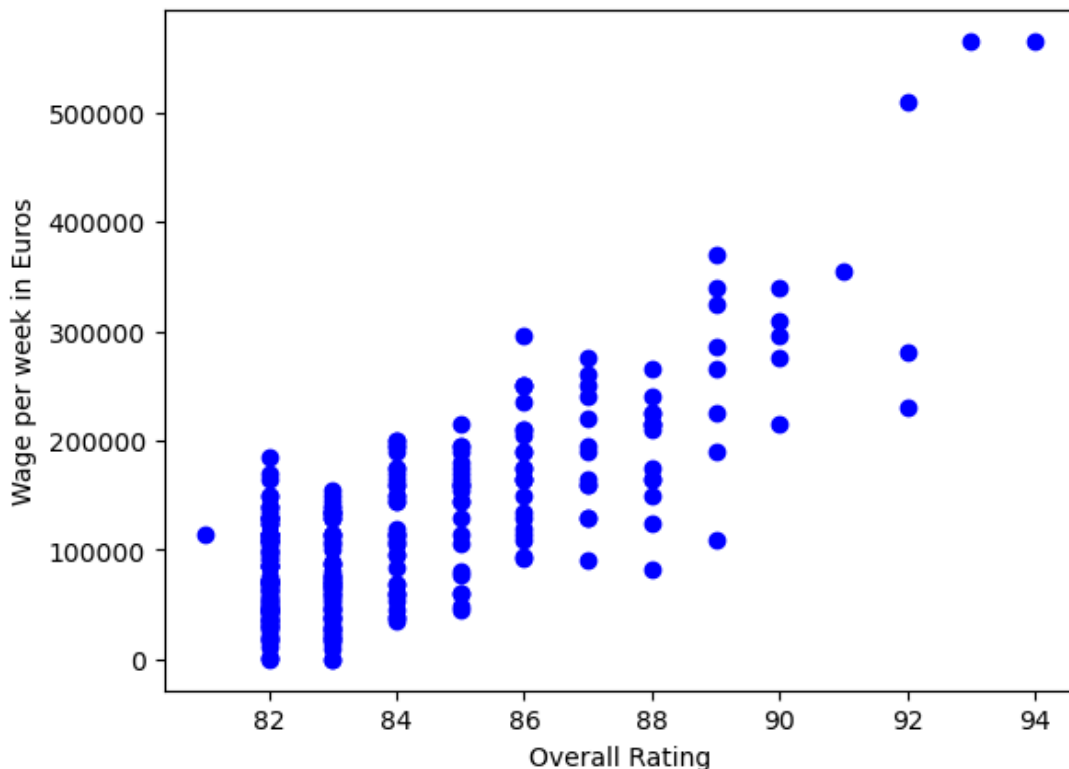


# Statistics and Trends

The dataset is taken from Kaggle. The data is related to FIFA 18 and the data contains the players' names, their overall ratings in the game, their clubs, wages, values, and their playing attributes. The dataset is first cleaned and processed by cutting the less important columns, converting strings to floats for some columns, and selecting the data for the top 300 players for simplicity purposes.

## 1. Scatter Graph:

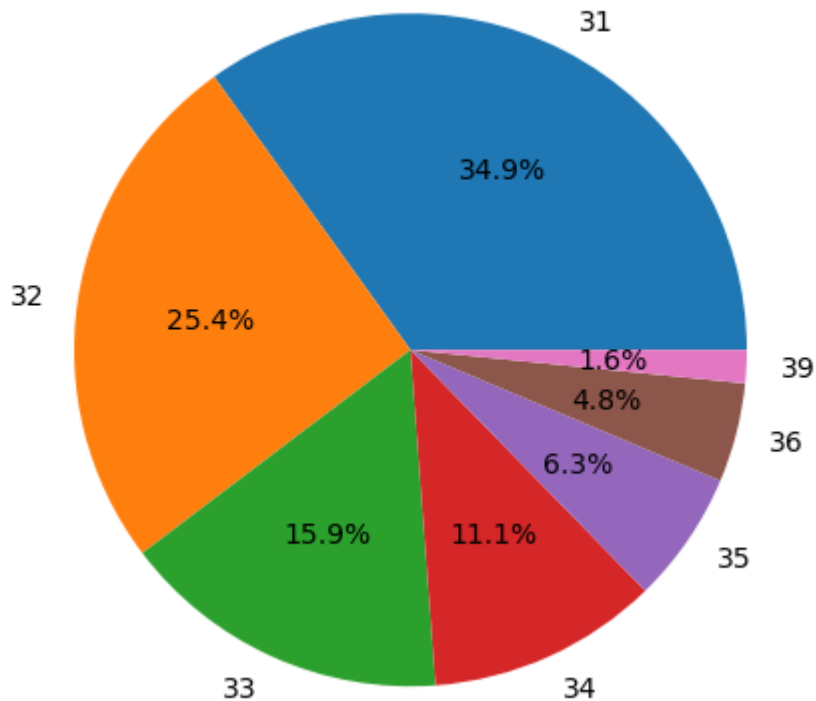
The graph here shows the relationship between a player's overall rating and his wage per week in Euros. The graph shows that even though wage depends on many factors such as position, age, and potential of the player, however, overall rating is the key factor. The graph shows that these two parameters have a positive relationship which means the greater the rating of the player, the greater his wage. The correlation coefficient is approximately 0.78, which is calculated by the code along with other statistics.



## 2. Pie Chart:

Moreover, we are also interested in knowing the distribution of players who are nearing their retirement. In football, most of the players retire around 33-36 years of age. The Pie chart here shows such players as the players with age more than 30. The chart shows that most of the top 300 players nearing retirement are either aged 31 or 32. Furthermore, as the age increases there are lesser players. Thus there are not many players who have a very high rating while being aged 35+.

Pie chart for players aged above 30.



### 3. Boxplot:

England, Spain, Italy, France, and Germany boast of having Europe's top 5 football leagues. We are curious to know whether the players from these countries are doing well. The boxplots show the overall ratings for players coming from these nationalities. The German players are rated higher than those of other nationalities as the indicated median for German players is 83.5 which is the biggest among all these countries. Germany also has some highly rated players with their overall ratings being 90 and 92. Further, French, Spanish, and Italian players are more or less equally rated as they have the same median values as 83. Lastly, the players from England have lesser ratings compared to these nations as they have a lesser median value of 82.

