Assignment 3

DATA VISUALIZATION WITH TABLEAU PUBLIC

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DATASET

In this assignment, the FIFA 18 dataset was used to visualize data from the soccer video game FIFA 18. Five data visualizations were made that explored several relationships between the data. The visualizations were created using Tableau Public. The screenshot below shows a portion of the data that was used in the Tableau Public data source panel after the original CSV file was connected to the software.

fifa18_clean.csv ▼	74 fields 17981 rows						

Name
fifa18_clean.csv

Fields

Type	Field Name	Physical Table	Remote Field Na...
#	Wage (€)	fifa18_clean.csv	Wage (€)
#	Value (€)	fifa18_clean.csv	Value (€)
Abc	Name	fifa18_clean.csv	Name
#	Age	fifa18_clean.csv	Age
Abc	Photo	fifa18_clean.csv	Photo
⊕	Nationality	fifa18_clean.csv	Nationality
Abc	Flag	fifa18_clean.csv	Flag
#	Overall	fifa18_clean.csv	Overall
#	Potential	fifa18_clean.csv	Potential
Abc	Club	fifa18_clean.csv	Club
Abc	Club Logo	fifa18_clean.csv	Club Logo
#	Special	fifa18_clean.csv	Special
#	Accelerat...	fifa18_clean.csv	Acceleration
#	Aggression	fifa18_clean.csv	Aggression
#	Agility	fifa18_clean.csv	Agility
#	Balance	fifa18_clean.csv	Balance
#	Ball contr...	fifa18_clean.csv	Ball control
#	Composu...	fifa18_clean.csv	Composure
#	Crossing	fifa18_clean.csv	Crossing
#	Curve	fifa18_clean.csv	Curve

# Wage (€)	# Value (€)	Abc Name	# Age	Abc Photo	⊕ Nationality	Abc Flag
565,000	95,500,000	Cristiano Ronaldo	32	https://cdn.sofifa.org/48/18...	Portugal	https://cdn.sofifa.org/flags/...
565,000	105,000,000	L. Messi	30	https://cdn.sofifa.org/48/18...	Argentina	https://cdn.sofifa.org/flags/...
280,000	123,000,000	Neymar	25	https://cdn.sofifa.org/48/18...	Brazil	https://cdn.sofifa.org/flags/...
510,000	97,000,000	L. Suárez	30	https://cdn.sofifa.org/48/18...	Uruguay	https://cdn.sofifa.org/flags/...
230,000	61,000,000	M. Neuer	31	https://cdn.sofifa.org/48/18...	Germany	https://cdn.sofifa.org/flags/...
355,000	92,000,000	R. Lewandowski	28	https://cdn.sofifa.org/48/18...	Poland	https://cdn.sofifa.org/flags/...
215,000	64,500,000	De Gea	26	https://cdn.sofifa.org/48/18...	Spain	https://cdn.sofifa.org/flags/...
295,000	90,500,000	E. Hazard	26	https://cdn.sofifa.org/48/18...	Belgium	https://cdn.sofifa.org/flags/...
340,000	79,000,000	T. Kroos	27	https://cdn.sofifa.org/48/18...	Germany	https://cdn.sofifa.org/flags/...
275,000	77,000,000	G. Higuaín	29	https://cdn.sofifa.org/48/18...	Argentina	https://cdn.sofifa.org/flags/...
310,000	52,000,000	Sergio Ramos	31	https://cdn.sofifa.org/48/18...	Spain	https://cdn.sofifa.org/flags/...
285,000	83,000,000	K. De Bruyne	26	https://cdn.sofifa.org/48/18...	Belgium	https://cdn.sofifa.org/flags/...
190,000	59,000,000	T. Courtois	25	https://cdn.sofifa.org/48/18...	Belgium	https://cdn.sofifa.org/flags/...
265,000	67,500,000	A. Sánchez	28	https://cdn.sofifa.org/48/18...	Chile	https://cdn.sofifa.org/flags/...
340,000	57,000,000	L. Modrić	31	https://cdn.sofifa.org/48/18...	Croatia	https://cdn.sofifa.org/flags/...
370,000	69,500,000	G. Bale	27	https://cdn.sofifa.org/48/18...	Wales	https://cdn.sofifa.org/flags/...
325,000	66,500,000	S. Agüero	29	https://cdn.sofifa.org/48/18...	Argentina	https://cdn.sofifa.org/flags/...
225,000	38,000,000	G. Chiellini	32	https://cdn.sofifa.org/48/18...	Italy	https://cdn.sofifa.org/flags/...
110,000	4,500,000	G. Buffon	39	https://cdn.sofifa.org/48/18...	Italy	https://cdn.sofifa.org/flags/...
215,000	79,000,000	P. Dybala	23	https://cdn.sofifa.org/48/18...	Argentina	https://cdn.sofifa.org/flags/...
82,000	57,000,000	J. Oblak	24	https://cdn.sofifa.org/48/18...	Slovenia	https://cdn.sofifa.org/flags/...
150,000	75,000,000	A. Griezmann	26	https://cdn.sofifa.org/48/18...	France	https://cdn.sofifa.org/flags/...
225,000	70,500,000	Thiago	26	https://cdn.sofifa.org/48/18...	Spain	https://cdn.sofifa.org/flags/...

TOTAL SOCCER PLAYER VALUE BY COUNTRY

The first visualization explores the relationship between country and total soccer player value. As expected, the map shows that South American and European countries have high total soccer player values. Many famous and successful players originate from these nations and soccer is a very popular sport in these regions. North America, Asia, and Africa do not have very high total soccer player values because the sport is less popular there.

Screenshot of Visualization:
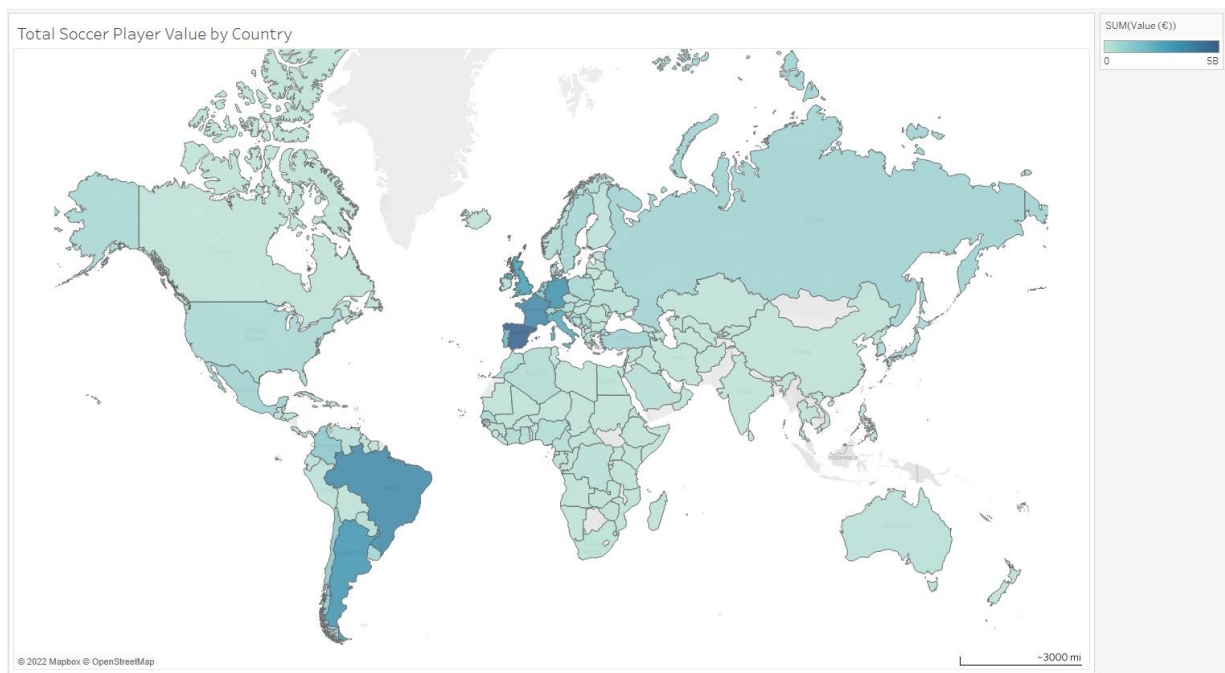
AVERAGE SOCCER PLAYER STRENGTH AND AGGRESSION BY COUNTRY

The second visualization explores the relationship between country and soccer player aggression and strength. The map shows that Central American and African countries have higher player aggression and strength. The larger the circle, the greater the average soccer player's aggression, and the darker the circle shading, the greater the soccer player's average strength.
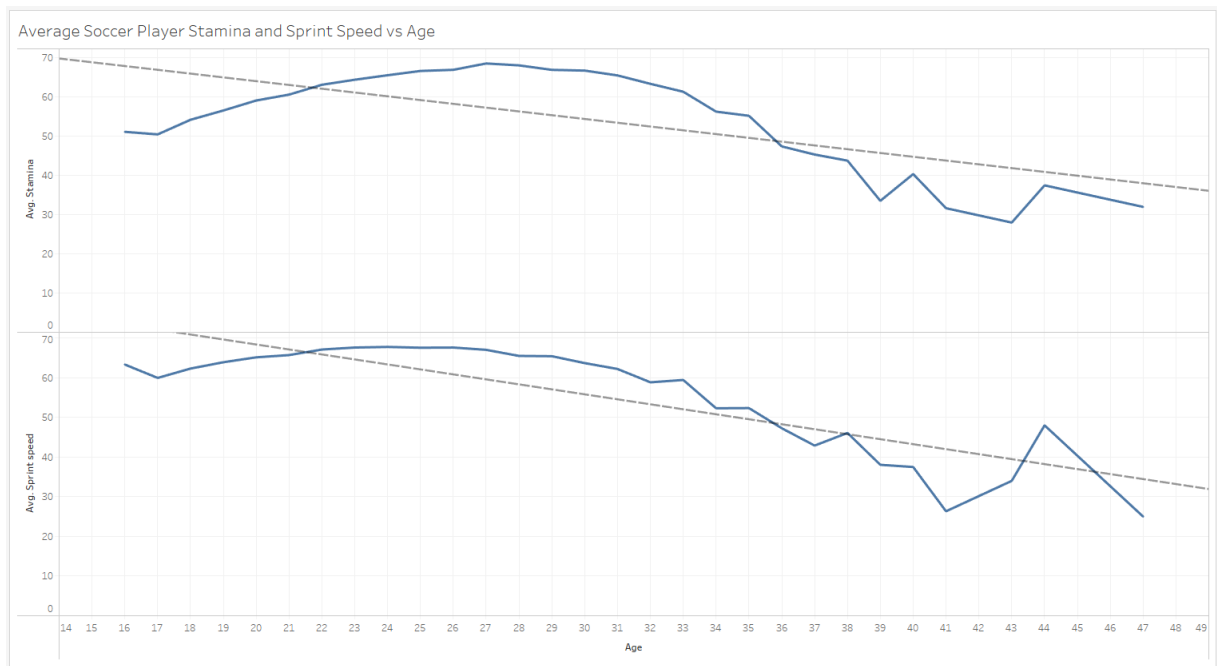
Screenshot of Visualization:
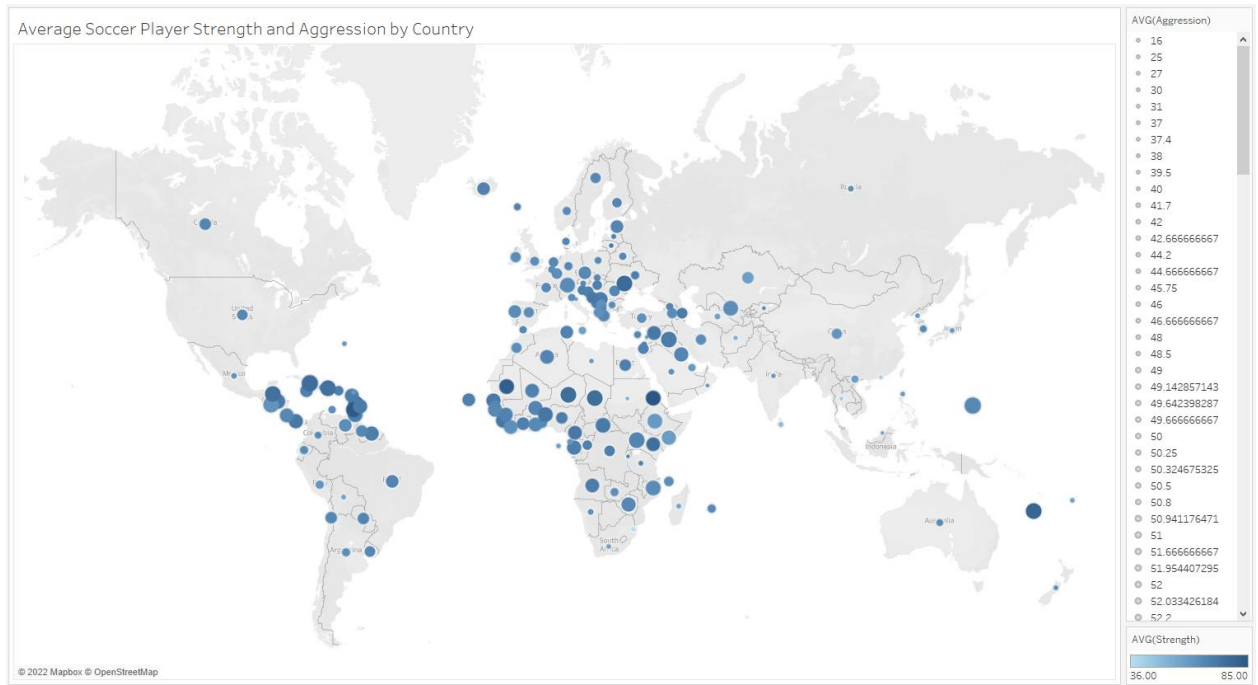
AVERAGE SOCCER PLAYER STAMINA AND SPRINT SPEED VS AGE

The third data visualization explores the relationship between the age of a soccer player and the average stamina and sprint speed. The visualization shows that both stamina and sprint speed increase until a player reaches their early to mid-twenties, after which both attributes decline. The trend lines further show that overall sprint speed and stamina decrease as a player grows older.

Screenshot of Visualization:

AVERAGE SOCCER PLAYER COMPOSURE VS WAGE

The fourth data visualization explores the relationship between the wage of a soccer player and the average composure. The visualization shows that the trend points towards an increase in player composure as the player's wage increases. This is expected as an important trait of successful players is their ability to be composed on the field and successful players are also paid more. An interesting feature of the visualization is that while the trend points towards a positive relationship between wage and composure, on the smaller scale there is a significant amount of variability.

Screenshot of Visualization:
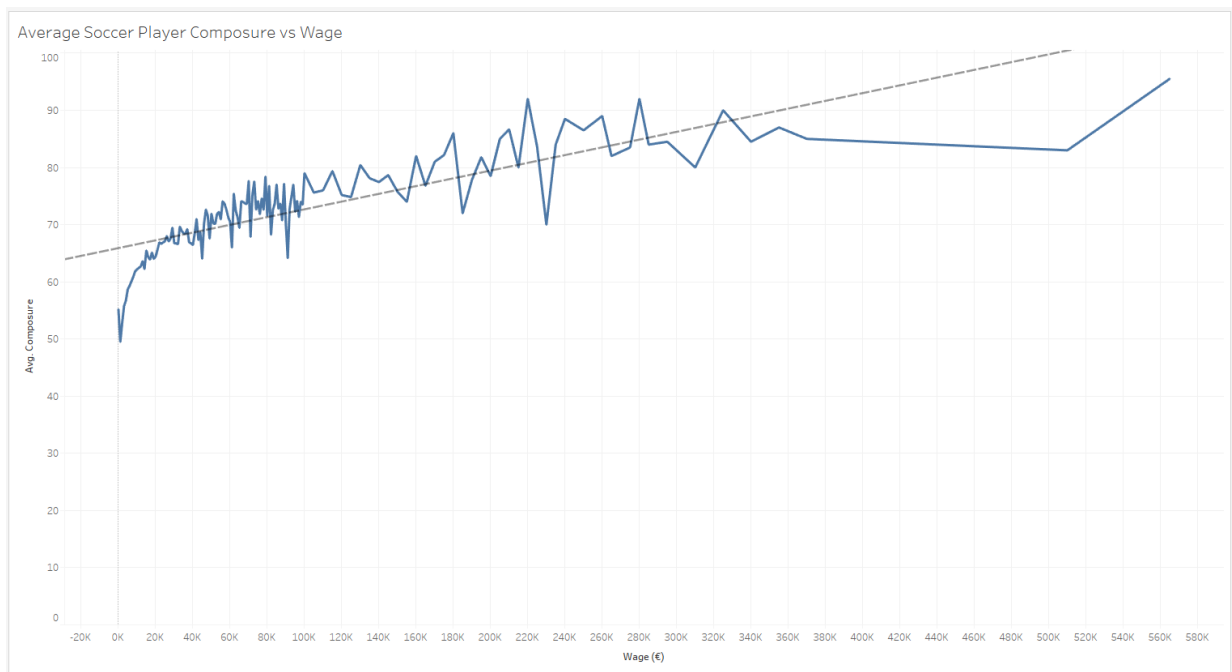
AVERAGE OVERALL SOCCER PLAYER RATING AND WAGE BY FINISHING RATING

The final visualization explores the average overall rating and wage of soccer players by their finishing rating. The visualization shows that as the finishing rating increases, the circles get larger and have a darker shading. This indicates that both the wage and overall rating increase as the finishing rating increases. The larger the circle, the greater the average overall rating, and the darker the shading, the greater the average wage. The labels on the circles represent the finishing ratings.

Screenshot of Visualization:
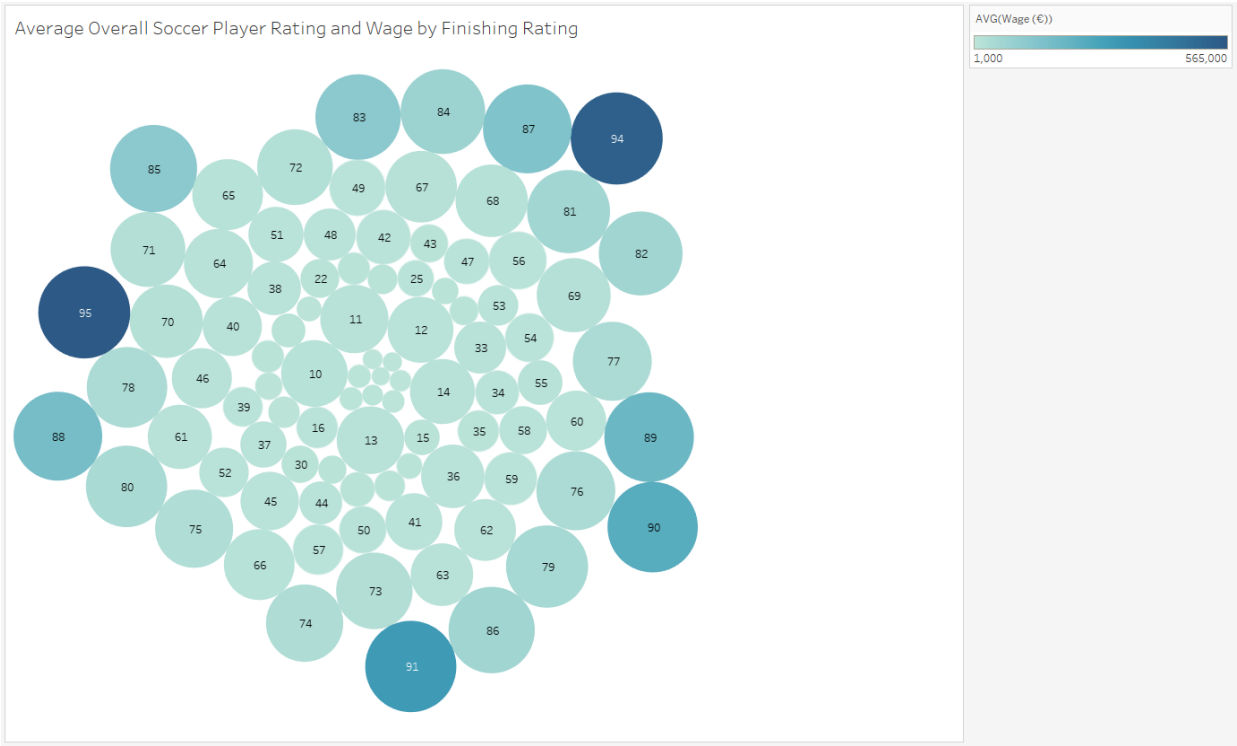
CONCLUSIONS

Tableau Public enabled the visualization of the FIFA 18 data set to explore several relationships relating to soccer players. Through the visualizations, several conclusions can be drawn. The first visualization showed that South American and European countries hold the greatest market share of soccer players. The second visualization showed that players from Central America and Africa generally have greater aggression and strength ratings. The third visualization showed that as players age, their sprint speed and stamina generally decline after a peak in their early to mid-twenties. The fourth visualization showed that players who are paid more are also more composed. Finally, the last visualization showed that finishing rating is positively correlated with wage and overall rating. This assignment explored the different ways that data can be visualized using Tableau Public. This exploration showed that through data visualization, data patterns can be made more visible, allowing important conclusions to be drawn.