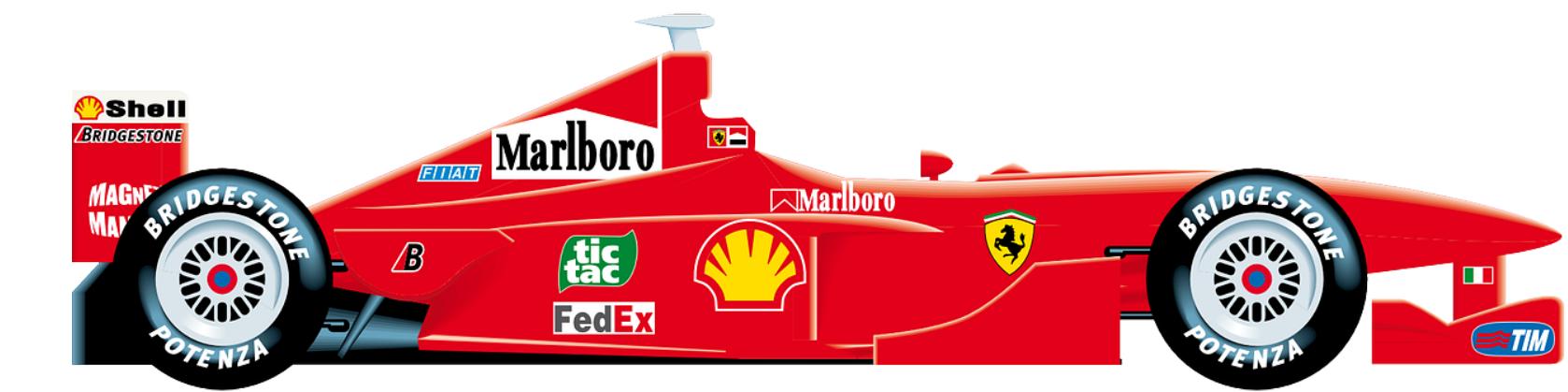




FORMULA 1 WORLD CHAMPIONSHIP (1950 - 2022)



Radhika Tripurani

Agenda



About me



Dataset Selection



Data visualization using Tableau



Data Cleaning using Excel



Analysis using SQL



References



Questions



Radhika Tripathi

Role : Azure Specialist

Want to be the subject matter expert for Microsoft cloud technologies and help organizations jumpstart their digital transformation journey

Next 5 years: Data Scientist

I want to gain expertise in Cloud Analytics to unlock the potential of data to improve decision-making and accelerate innovation

DID YOU
KNOW?

- Pivoted my career from hospitality to IT
- Earned 3 professional certificates within a year
- Been to the tallest building in the world 'Burj Khalifa'
- Walked on a glacier and drank glacier water
- Hiked in about 20 National Parks
- Hugged a koala bear
- Did Hang Gliding



Yummy



"Always say Yes to any new Adventure"



My Art



My Family
My Rock
My Support



Vizag, India



Atlanta

Born and brought up in India. Living in Atlanta now

- ✓
- Strong communicator
 - Respectful
 - Reliable
 - Positive attitude
 - Accountable
 - Organized
 - Creative
 - Polite
- ✗
- Being too critical on myself
 - Perfectionist

My Photography



FORMULA 1 WORLD CHAMPIONSHIP

(1950 - 2022)



Chosen Dataset - Formula 1



 **Formula 1**, known as the pinnacle of motorsports, is enjoyed by fans worldwide.

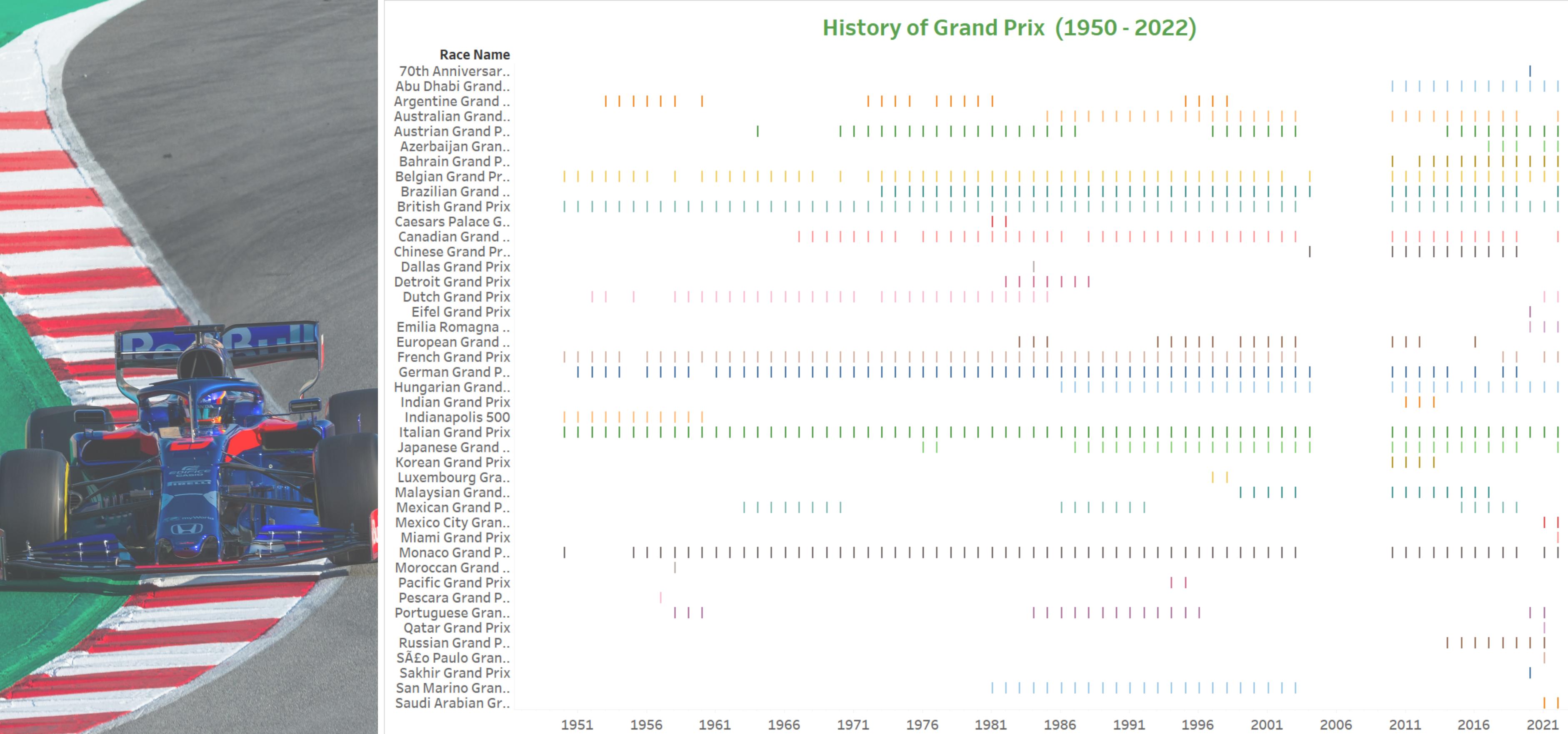
 It is a sport with emphasis on not only the Drivers, but also Engineering and Technology.

 Formula 1 teams have access to and analyse incredible amounts of data in order to judge and extract maximum performance.

 It is a sport where even 1/100th of a second counts.







Seasons
73

Circuits
76

Constructors
211

Drivers
855

Grand Prix
979

Let's Talk About Circuits

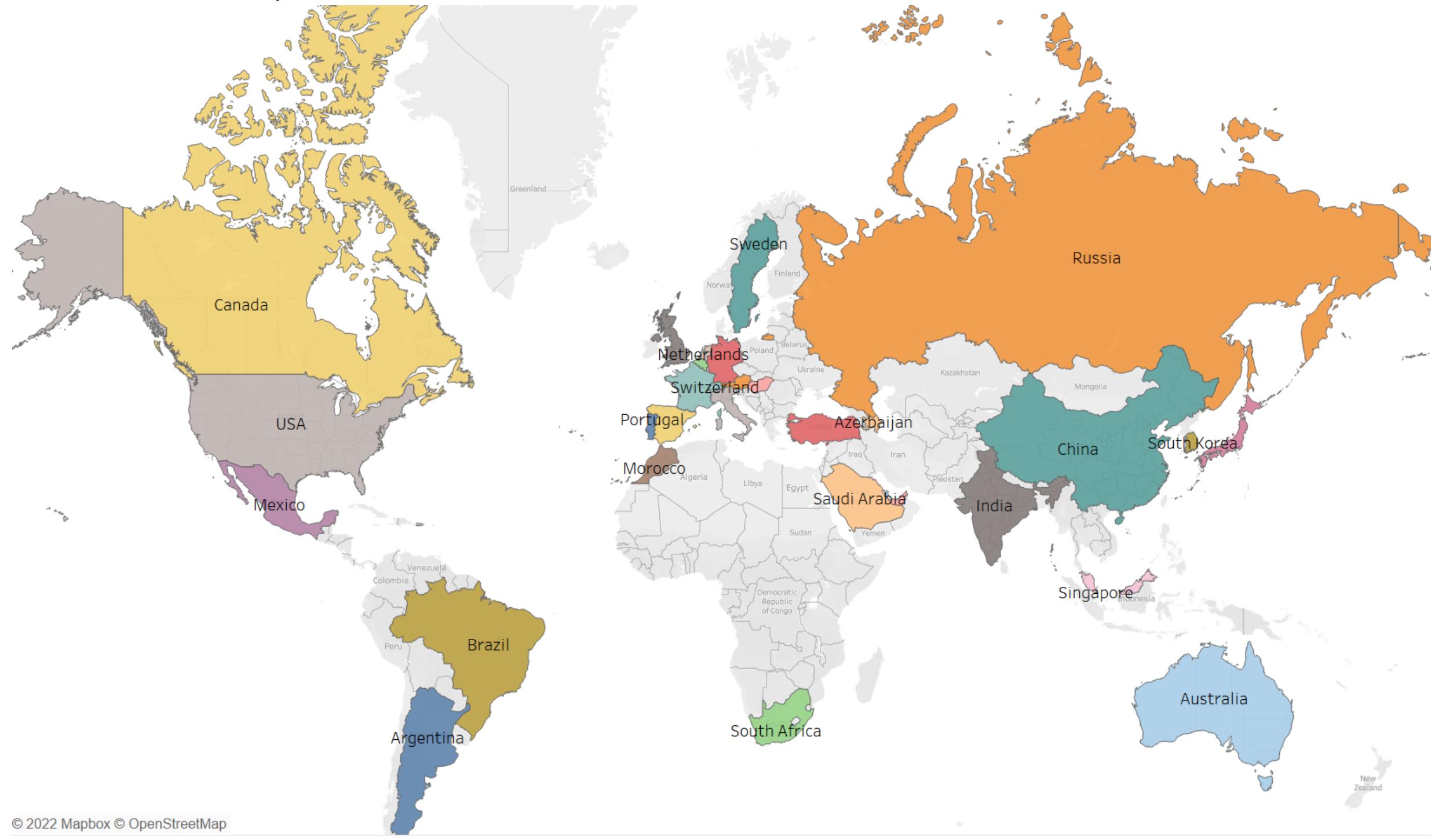


What's a circuit?

What's a Lap ?

What's a Grand Prix ?

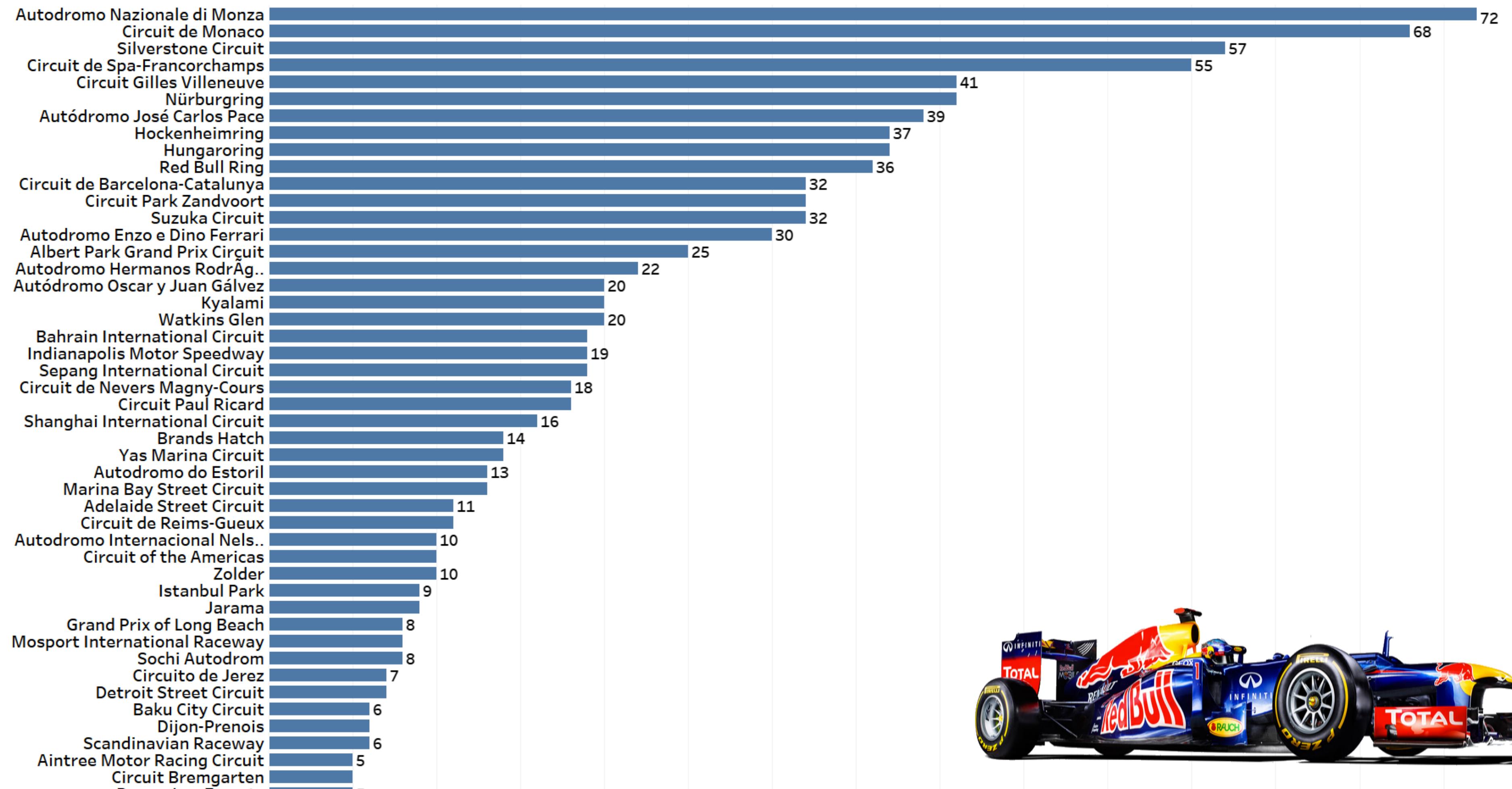
Map shows locations of the circuits that hosted a Grand Prix



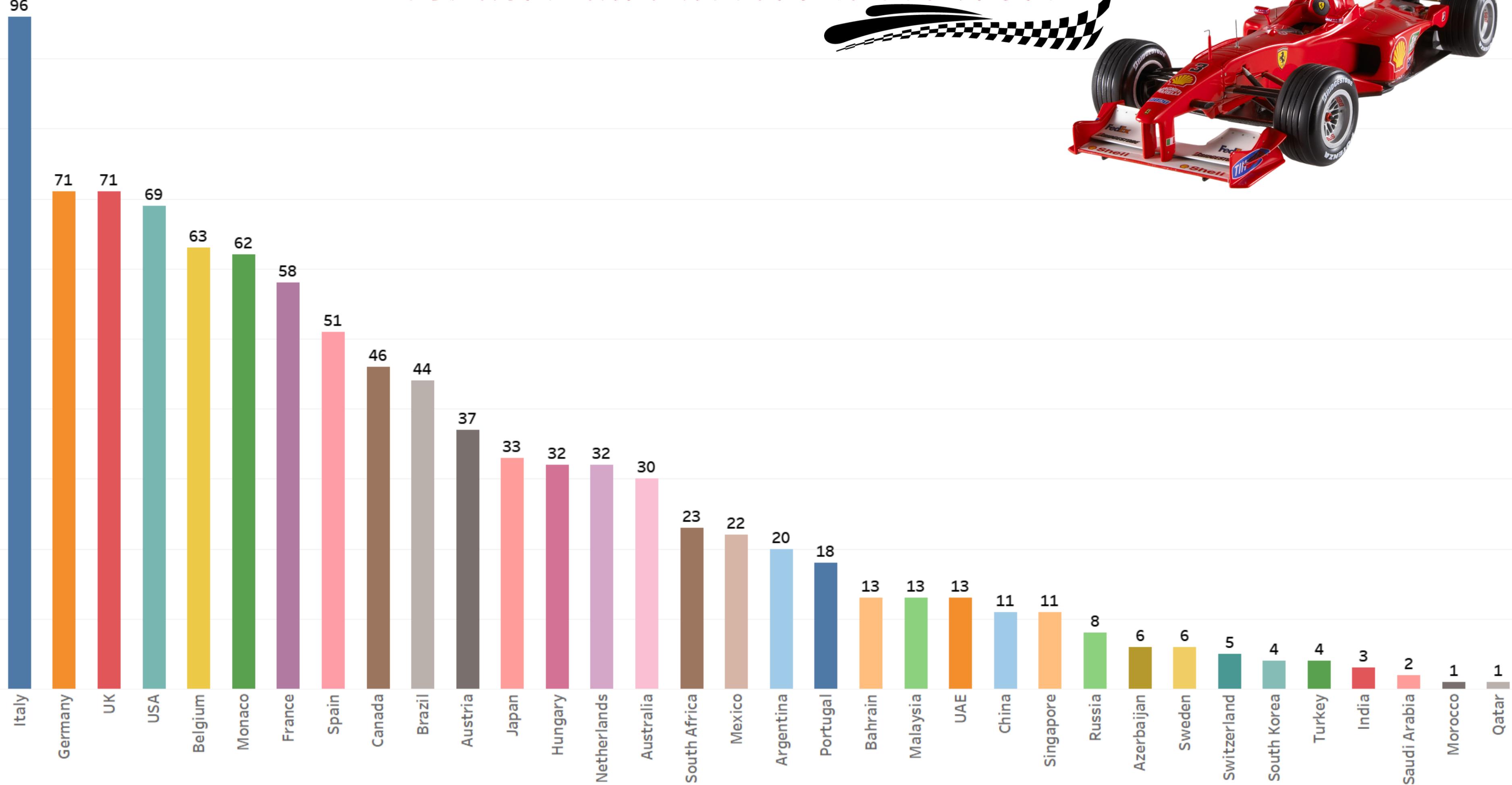


Race locations for 2022

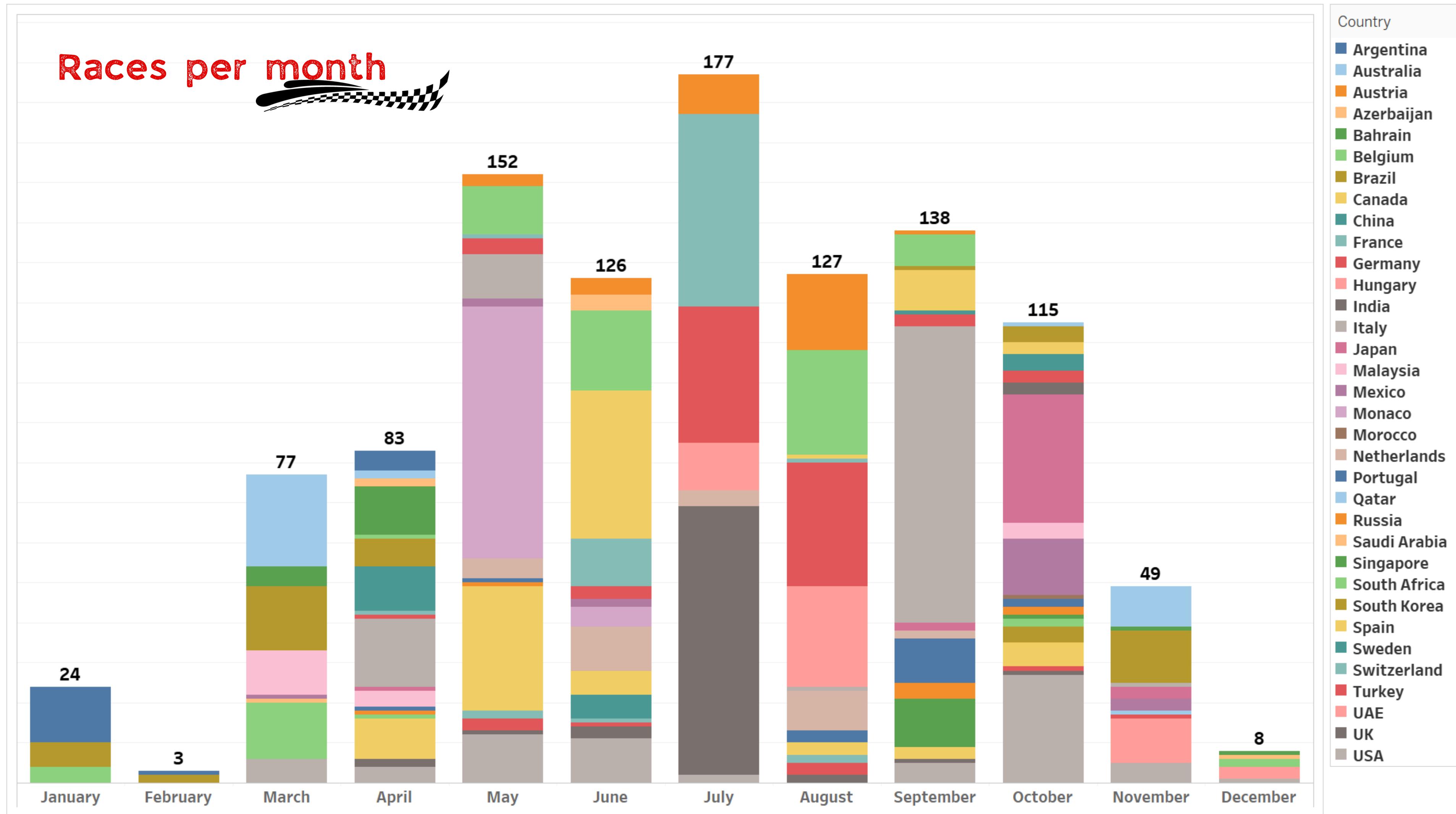
Most Frequently Raced Circuits



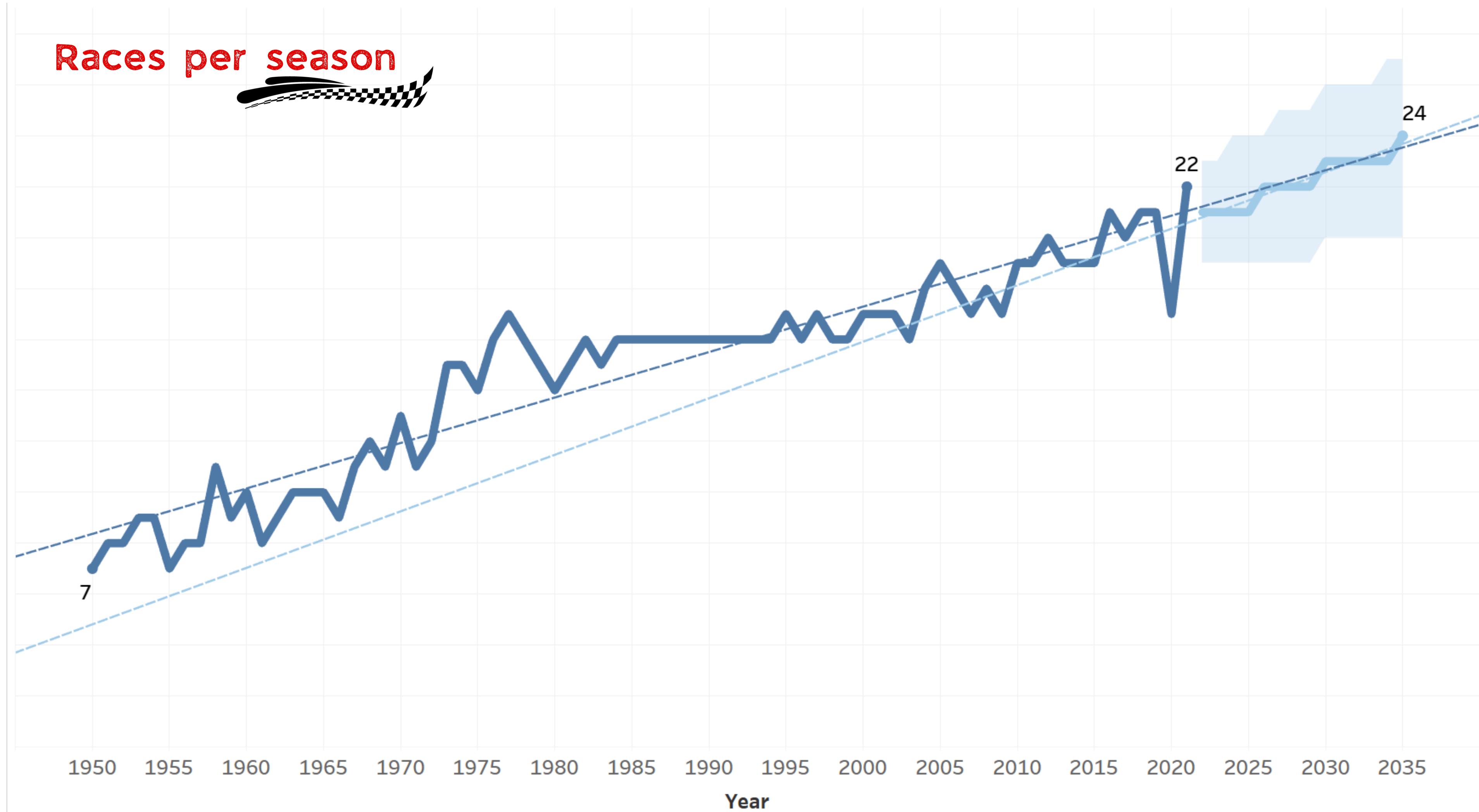
Countries that hosted most races



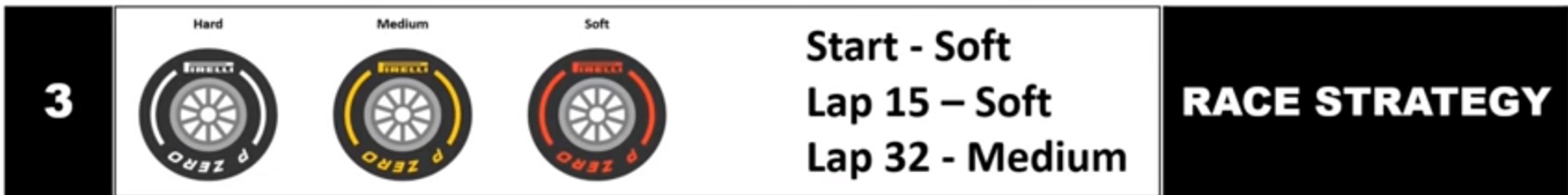
Races per month



Races per season



Let's Talk About Race



Let's Talk About Race



FRIDAY

PRACTICE 1

PRACTICE 2

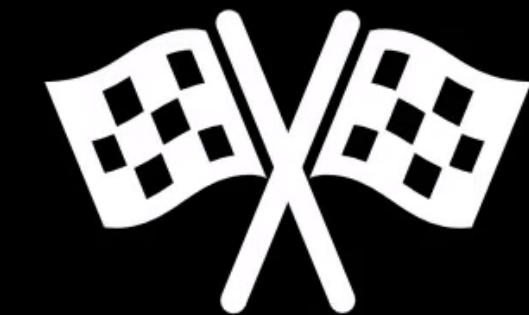
SATURDAY

PRACTICE 3

QUALIFYING

SUNDAY

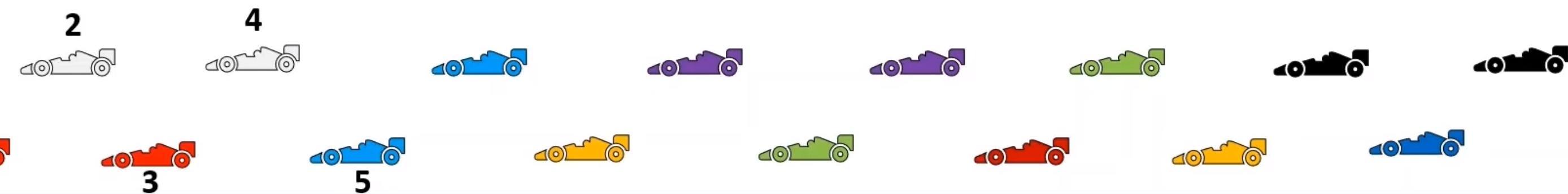
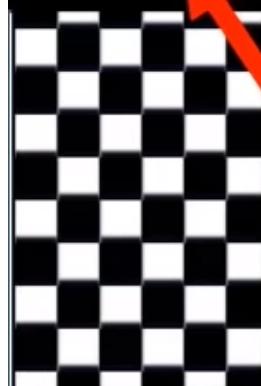
RACE!!



**Pole
Position**

Driver	Lap 1	Lap 2	Lap 3	GP
A	1:30:50	1:29:20	1:30:10	3
B	1:32:00	1:32:10	1:29:15	2
C	1:29:00	1:29:10	1:30:10	1

**Grid
Position**

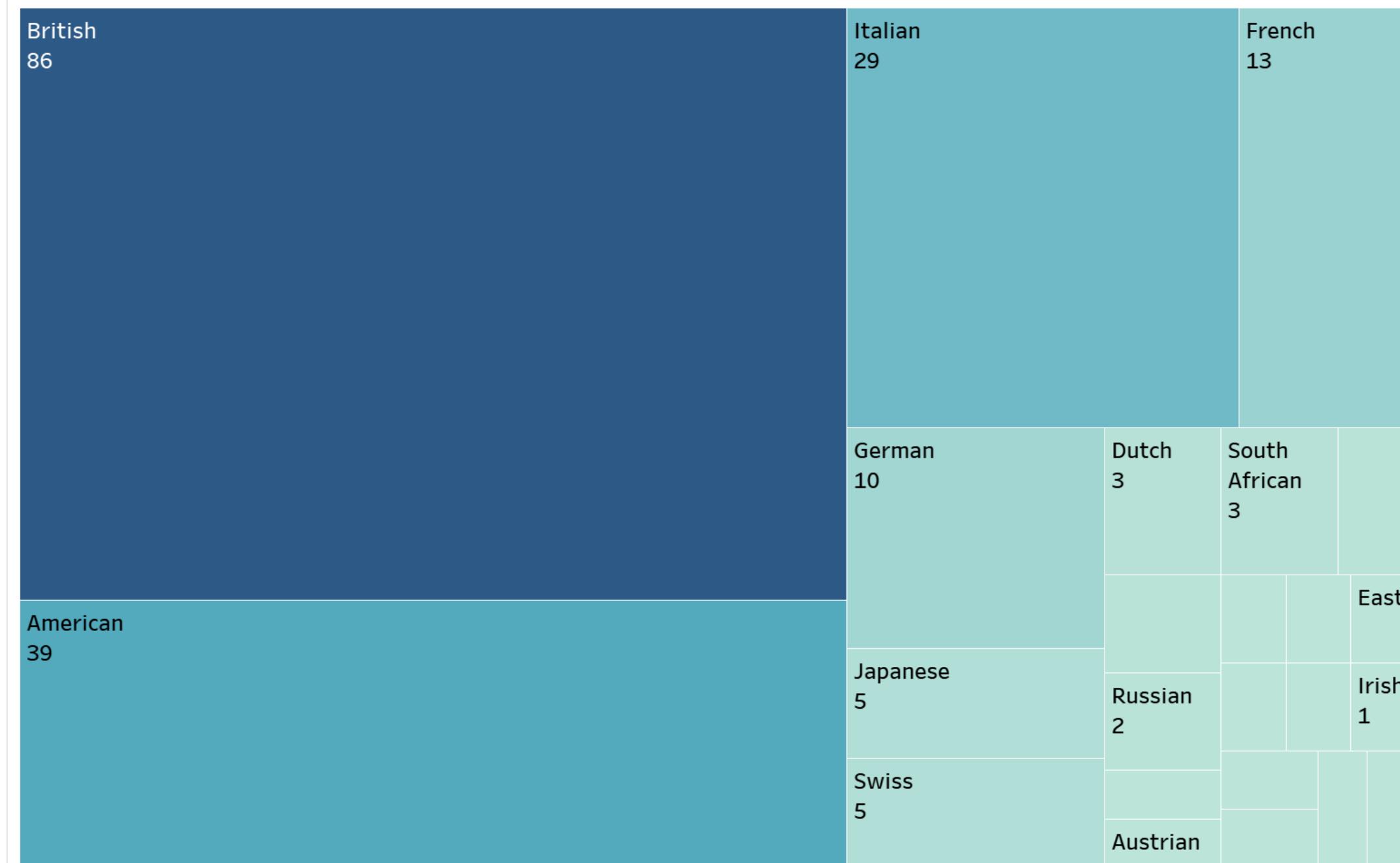


Design It, Build It, Race It !

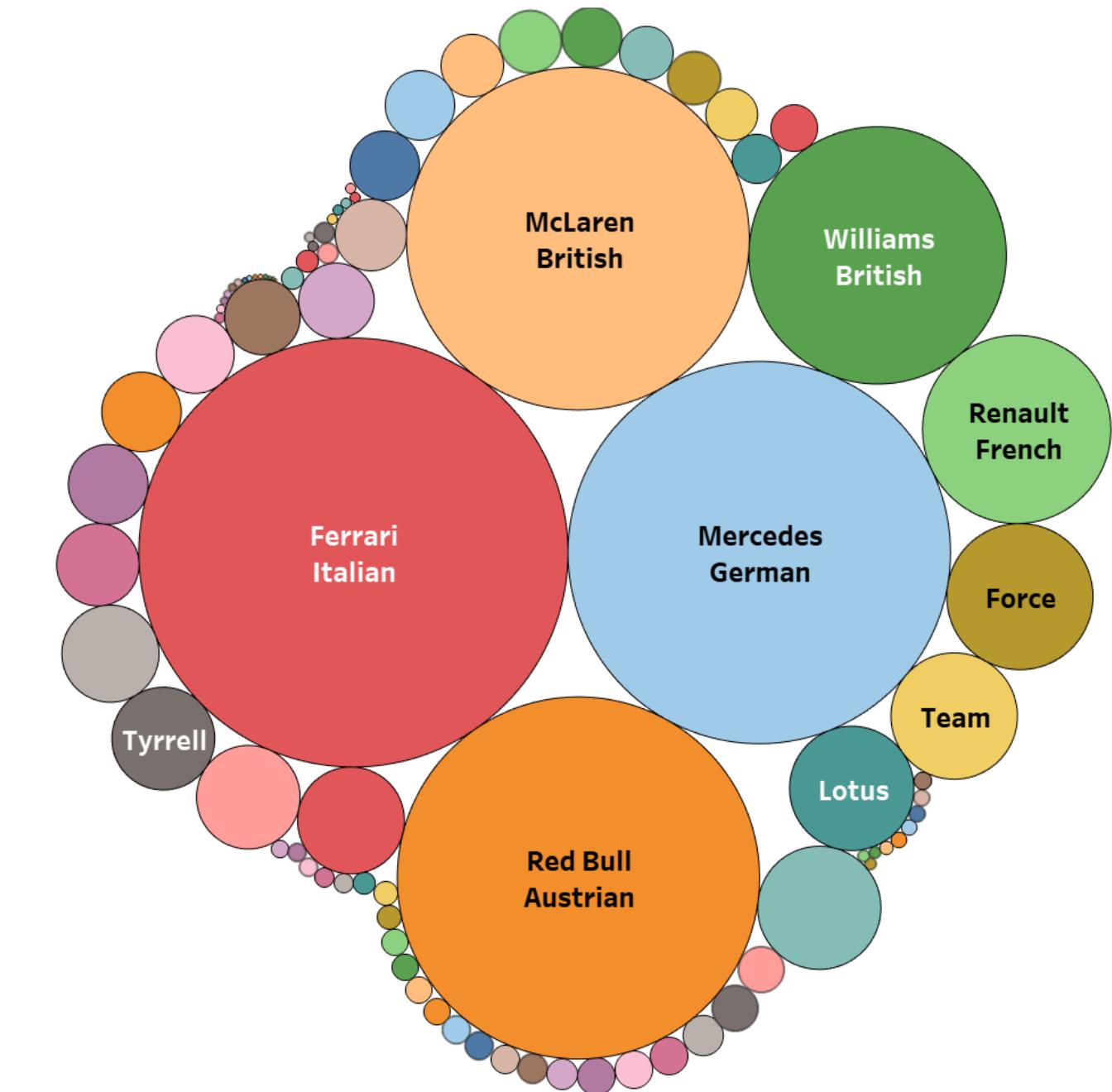


" Races are won at the track. Championships are won at the factory." - Mercedes (2019)

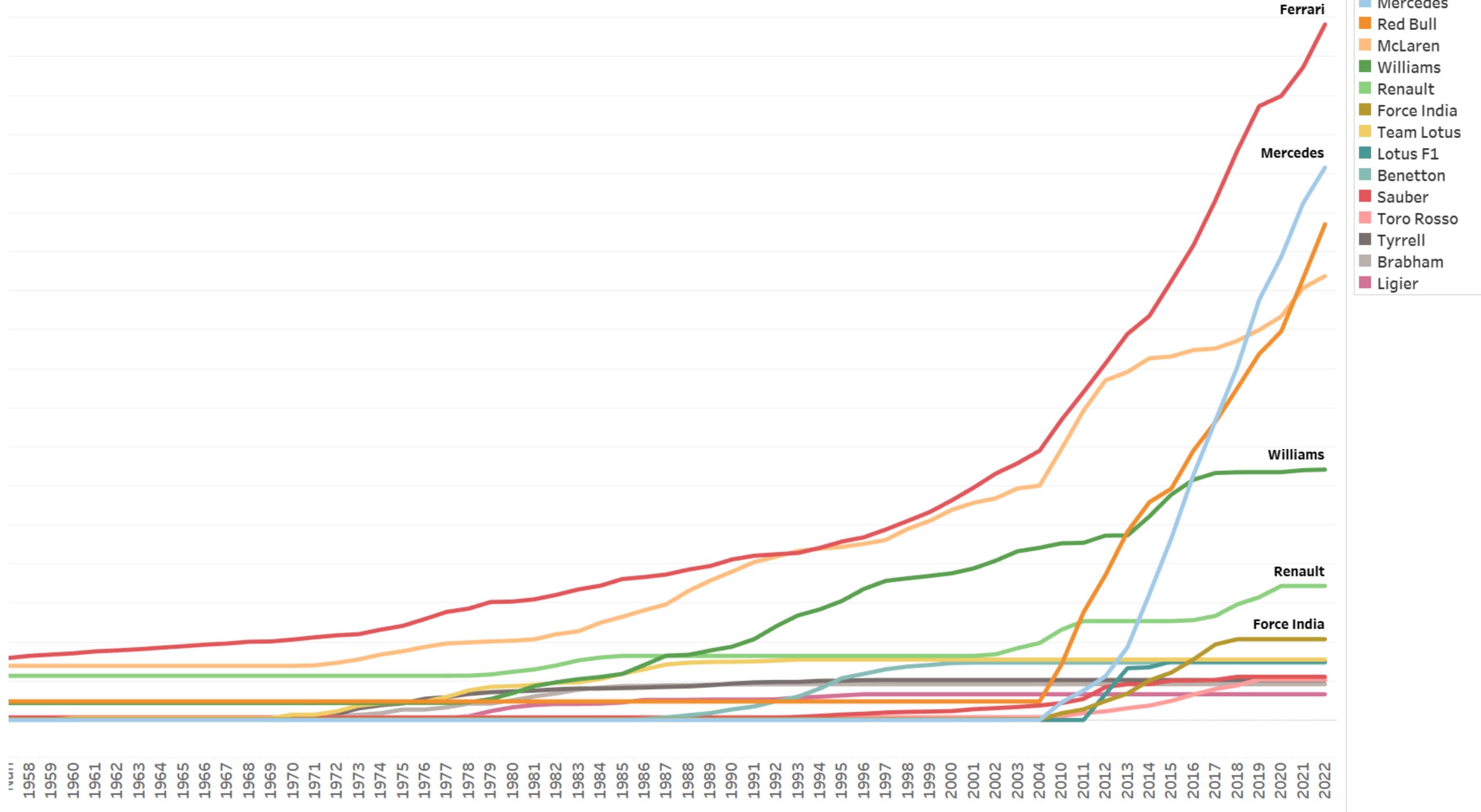
Constructors per Nationality (1950 - 2022)



Constructors - Points aggregate (1950 - 2022)



Top 15 Constructors (Cummulative Points 1950 - 2022)



Evolution Of Formula 1 Cars



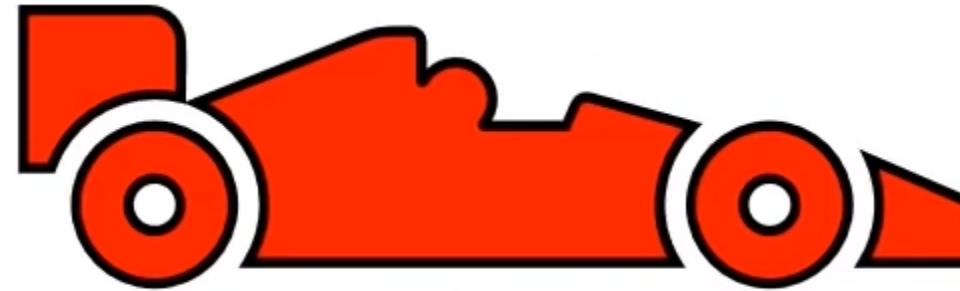
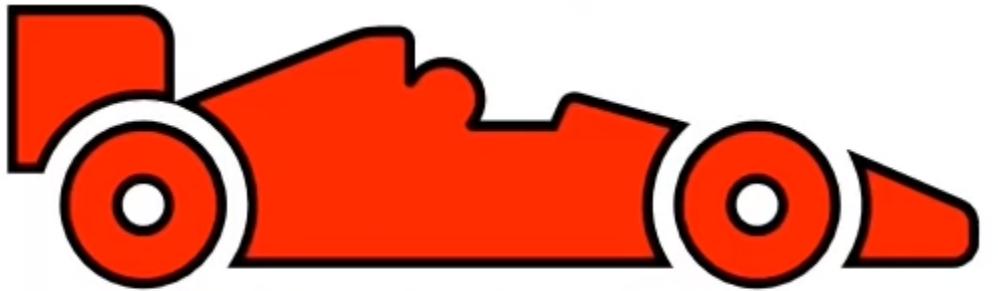
Formula One is all about cars. They are indeed a fascinating piece of machinery, and a lot of effort goes into their construction.

Cars have evolved drastically over almost seventy years of Formula One.

- Today's cars are much safer and more maneuverable.
- Improved dynamics
- Increased fuel efficiency with hybrid technology
- Substantially electronics over the years.
- Drivers have better control over the cars
- Better speeds and fewer accidents.
- The new era of cars in 2022 are the heaviest as the minimum weight is set at 1752 pounds

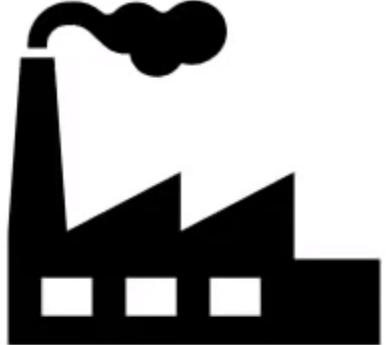


FERRARI



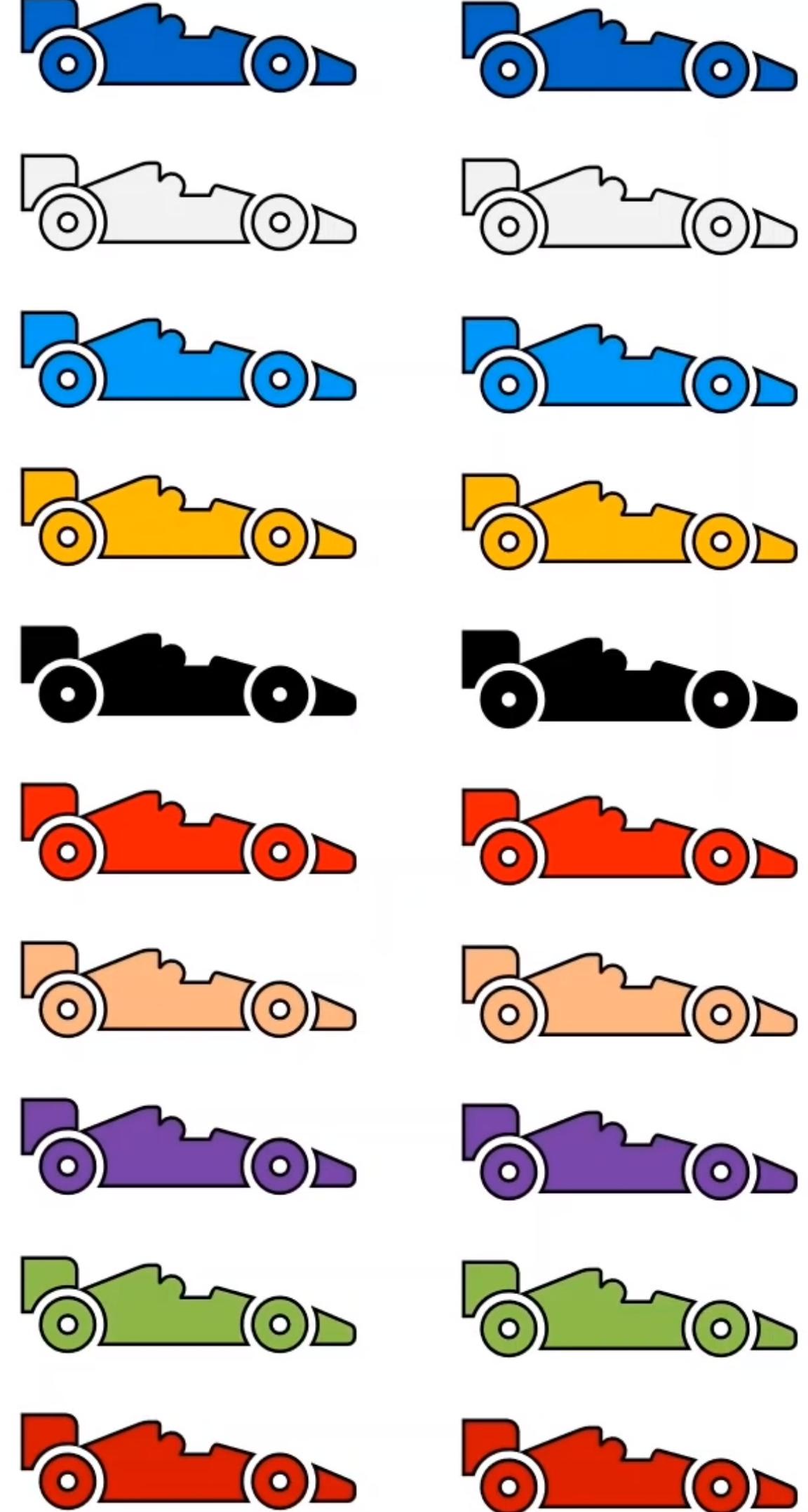
50

Team
Members



200-1500

Factory Engineers



10 TEAMS

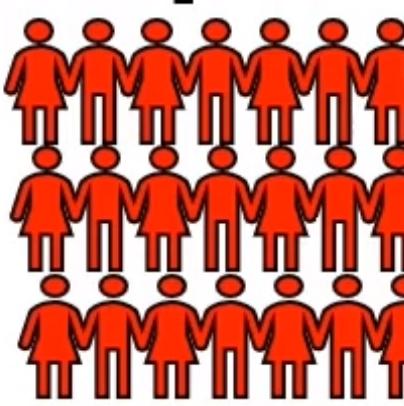
20 CARS



17 RACES



**Constructor
Championship**



**Driver
Championship**



Formula 1 Car Drivers

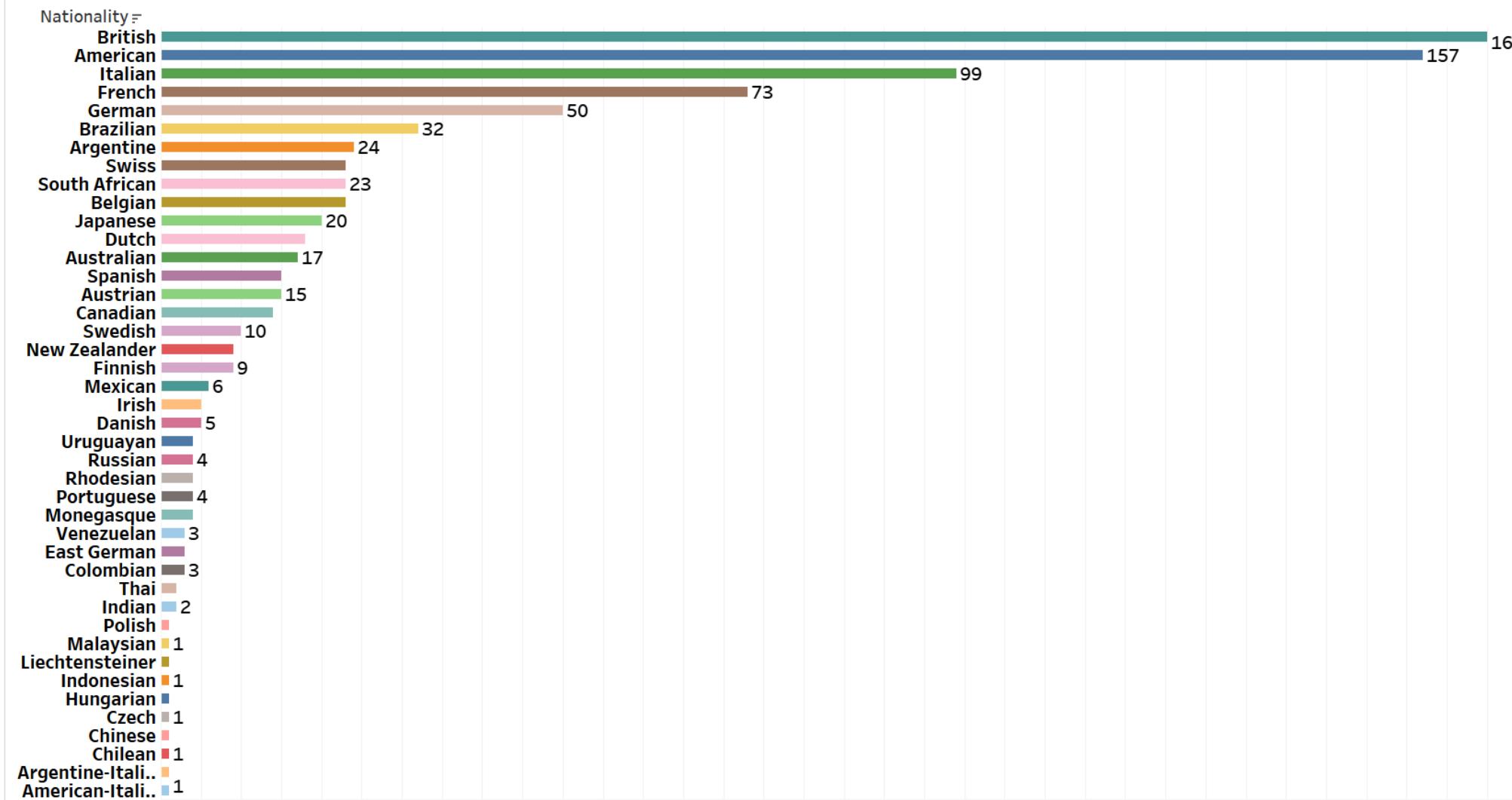


1950

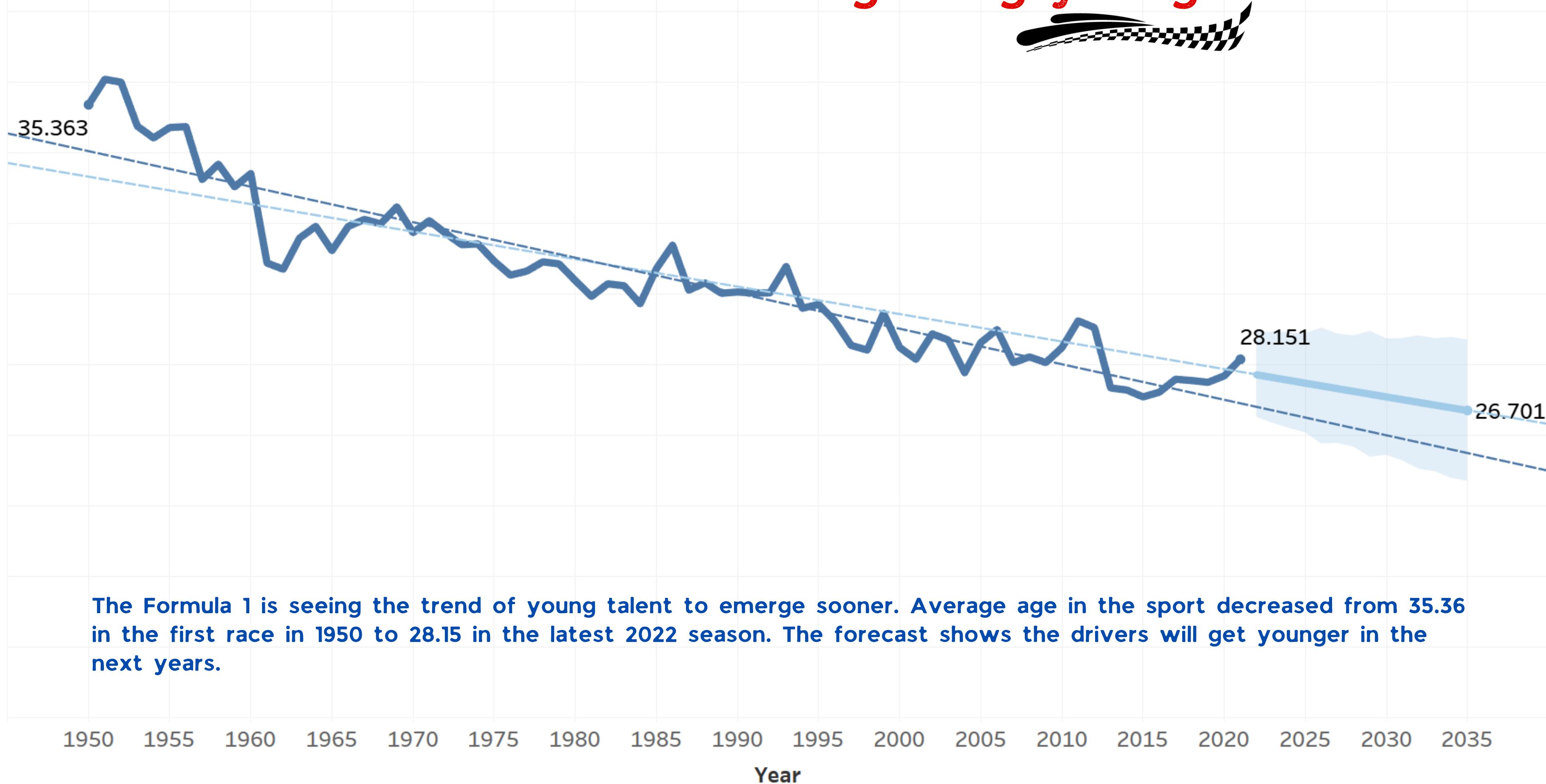
Nationality =



Drivers sorted by their nationality



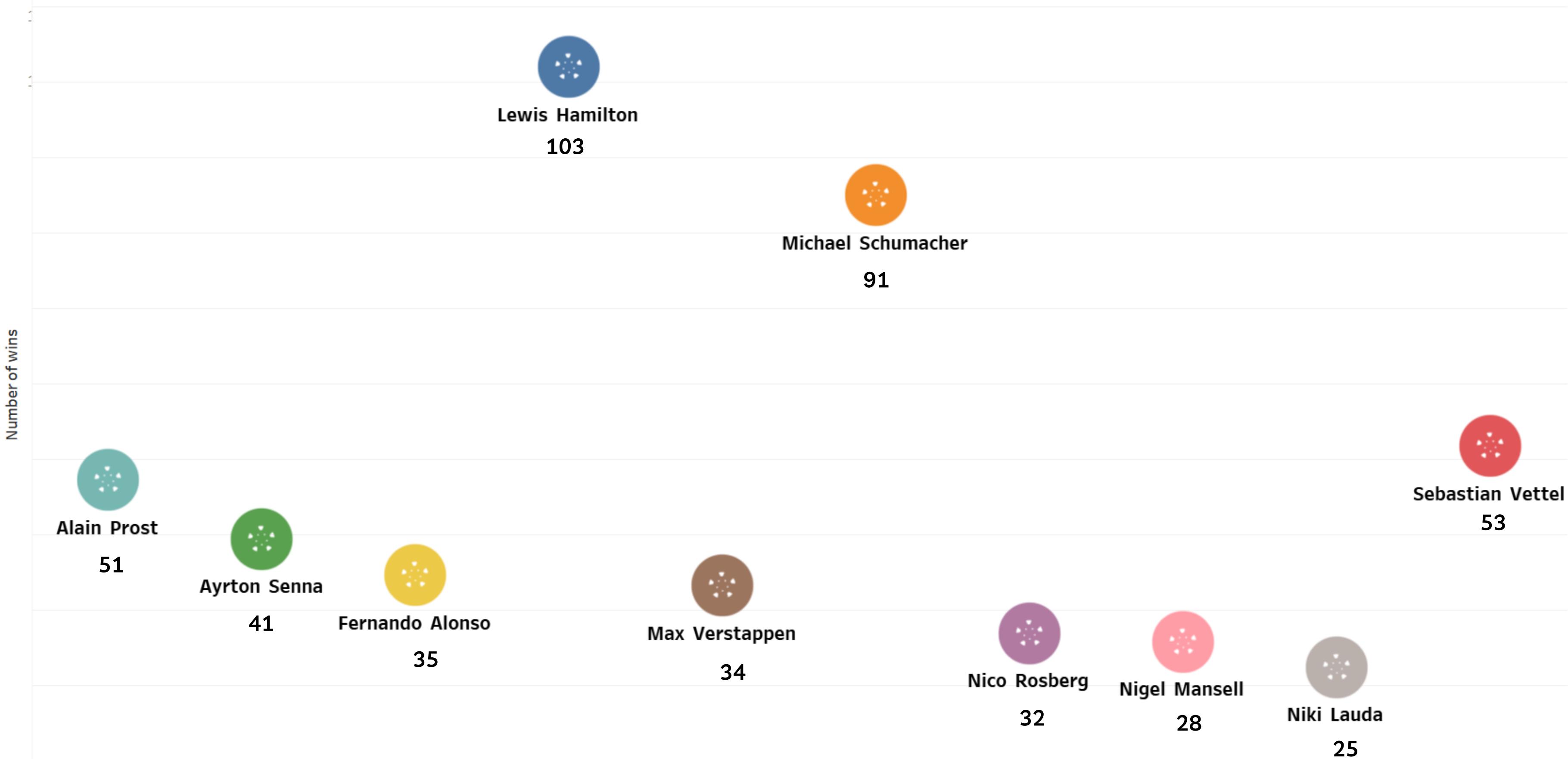
The Formula 1 Drivers are getting younger



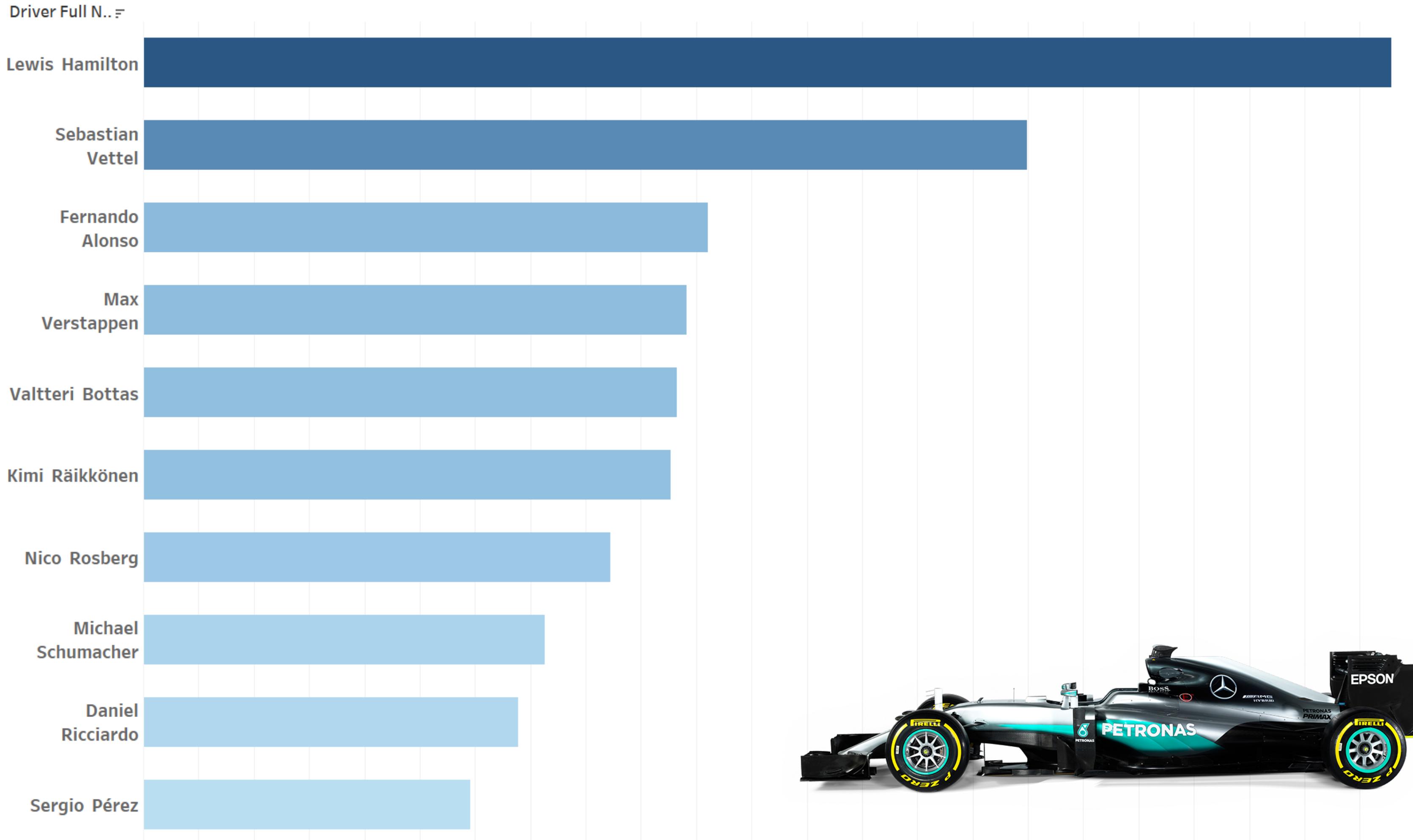
The Formula 1 is seeing the trend of young talent to emerge sooner. Average age in the sport decreased from 35.36 in the first race in 1950 to 28.15 in the latest 2022 season. The forecast shows the drivers will get younger in the next years.

Top 10 Drivers - Wins

Driver Full Name



Top 10 drivers with maximum points



Top drivers with maximum points for 2022

Driver Full Name

Max
Verstappen

Sergio Pérez

Lewis Hamilton

Valtteri Bottas

Fernando
Alonso

Daniel
Ricciardo

Sebastian
Vettel





Pole Position

Race
Winner



Podium Finish

Position	Points
1	25
2	18
3	15
4	12
5	10
6	8
7	6
8	4
9	2
10	1
Fastest Lap	1



Data Cleaning using Excel



Remove Duplicates: There is a considerable probability that duplicate data can be added without the user's knowledge. In such scenarios, you should eliminate duplicate values. The dataset did not have any duplicates

Look if the data needs Data Parsing from Text to Column: For this analysis, I did not need to do any parsing

Look if the Columns need merging: In the 'Drivers' table, I merged the columns 'First name' and 'Last name' as a new column 'Driver Full name'

Spell Check: Checking for spelling is one of the most important tasks we need to do when cleaning data. In this dataset I had to change the spellings for some first names, last names of the drivers and cities as there were a lot of special characters in them.

Change Case - Lower/Upper/Proper: I used functions like =UPPER (cell address) - for Upper case conversion, =LOWER (cell address) - for Lower case conversion, =PROPER (cell address) - for Sentence case conversion

Eliminate Excess Spaces: I used TRIM function to eliminate excess spaces and tab spaces in the worksheets

Find and Replace: I used Find and Replace to correct the spellings in all the worksheets

Select and Treat All Blank Cells: I checked for blank spaces by selecting the data and pressing F5 -> special->blanks. This dataset did not have any blanks

Format for Dates: The dataset had a lot of dates for they were not all in the same format. I adjusted the dates to follow mm-dd-yyyy format



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drivers Search (Alt+Q)

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Font

Alignment

Number

Conditional Formatting

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First Names

1	driverId	driverRef	number	code	Firstname	Lastname	dob	natio	url
8	7	boudai	\N	BOU	SÃ©bastien	Bourdais	2/28/1979	French	http://en.wikipedia.org/wiki/S%C3%A9bastien_Bourdais
43	42	pizzonia	\N	PIZ	AntÃ³nio	Pizzonia	9/11/1980	Brazilian	http://en.wikipedia.org/wiki/Ant%C3%B3nio_Pizzonia
61	60	mazzacan	\N	\N	GastÃ³n	Mazzacane	5/8/1975	Argentinian	http://en.wikipedia.org/wiki/Gast%C3%B3n_Mazzacane
62	61	enge	\N	\N	TomÃ¡Åí	Enge	9/11/1976	Czech	http://en.wikipedia.org/wiki/Tom%C3%A1%C5%A1_Enge
68	67	buemi	\N	BUE	SÃ©bastien	Buemi	10/31/1988	Swiss	http://en.wikipedia.org/wiki/S%C3%A9bastien_Buemi
73	72	sarrazin	\N	\N	StÃ©phane	Sarrazin	11/2/1975	French	http://en.wikipedia.org/wiki/St%C3%A9phane_Sarrazin
101	100	comas	\N	\N	Ã‰ric	Comas	9/28/1963	French	http://en.wikipedia.org/wiki/%C3%89ric_Comas
104	103	bernard	\N	\N	Ã‰ric	Bernard	8/24/1964	French	http://en.wikipedia.org/wiki/%C3%89ric_Bernard
164	163	arnoux	\N	\N	RenÃ©	Aroux	7/4/1948	French	http://en.wikipedia.org/wiki/Ren%C3%A9_Arnoux
168	167	campos	\N	\N	AdriÃ¡n	Campos	6/17/1960	Spanish	http://en.wikipedia.org/wiki/Adri%C3%A1n_Campos
184	183	hesnault	\N	\N	FranÃ§ois	Hesnault	12/30/1956	French	http://en.wikipedia.org/wiki/Fran%C3%A7ois_Hesnault
229	228	desire_v	\N	\N	DesirÃ©	Wilson	11/26/1953	South African	http://en.wikipedia.org/wiki/Desir%C3%A9_Wilson
297	296	migault	\N	\N	FranÃ§ois	Migault	12/4/1944	French	http://en.wikipedia.org/wiki/Fran%C3%A7ois_Migault
316	315	larrousse	\N	\N	GÃ©rard	Larrousse	5/23/1940	French	http://en.wikipedia.org/wiki/G%C3%A9rard_Larrousse
320	319	dolhem	\N	\N	JosÃ©	Dolhem	4/26/1944	French	http://en.wikipedia.org/wiki/Jos%C3%A9_Dolhem
328	327	cevert	\N	\N	FranÃ§ois	Cevert	2/25/1944	French	http://en.wikipedia.org/wiki/Fran%C3%A7ois_Cevert
349	348	mazet	\N	\N	FranÃ§ois	Mazet	2/24/1943	French	http://en.wikipedia.org/wiki/Fran%C3%A7ois_Mazet
383	382	solana	\N	\N	MoisÃ©s	Solana	12/26/1935	Mexican	http://en.wikipedia.org/wiki/Mois%C3%A9s_Solana
430	429	andre_p	\N	\N	AndrÃ©	Pilette	10/6/1918	Belgian	http://en.wikipedia.org/wiki/Andr%C3%A9_Pilette
433	432	cabral	\N	\N	MÃ¡rio de AraÃºjo	Cabral	1/15/1934	Portuguese	http://en.wikipedia.org/wiki/Mario_de_Araujo_Cabral
446	445	seiffert	\N	\N	GÃ¶nther	Seiffert	10/18/1937	German	http://en.wikipedia.org/wiki/G%C3%BCnther_Seiffert
500	498	gonzale	\N	\N	JosÃ© FÃ©lix	GonzÃ¡lez	10/5/1922	Argentinian	http://en.wikipedia.org/wiki/Jos%C3%A9_FÃ©lix_Gonz%C3%A1lez
555	553	testut	\N	\N	AndrÃ©	Testut	4/13/1926	French	http://en.wikipedia.org/wiki/Andr%C3%A9_Testut
605	605	gueffi	\N	\N	AndrÃ©	Guelfi			
606	604	picard	\N	\N	FranÃ§ois	Picard			
611	609	simon	\N	\N	AndrÃ©	Simon			
627	625	bayol	\N	\N	Ã‰lie	Bayol			
641	639	milhoux	\N	\N	AndrÃ©	Milhoux			
648	646	iglesias	\N	\N	JesÃ©	Iglesias			
717	715	bechem	\N	\N	GÃ¶nther	Bechem			
776	774	chaboud	\N	\N	EugÃ¨ne	Chaboud			
791	789	martin	\N	\N	EugÃ¨ne	Martin			
808	806	oscar_gc	\N	\N	Ã“scar	GonzÃ¡lez			
817	816	ambrosio	\N	DAM	JÃ©rÃ©mie	d'Ambrosio			
819	818	vergne	25	VER	Jean-Ã‰ric	Vergne			
828	827	lotterer	45	LOT	AndrÃ©	Lotterer			

drivers

Ready 36 of 854 records found

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Alignment

Number

Conditional Formatting

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Last Names

1	driverId	driverRef	number	code	Firstname	Lastname	dob	natio	url
9	8	raikkonen	\N	RAI	Kimi	RÃ¤ikkÃ¶nen	10/17/1979	Finnish	http://en.wikipedia.org/wiki/Kimi_R%C3%A4ikk%C3%B6nen
49	48	gene	\N	\N	Marc	GenÃ©	3/29/1974	Spanish	http://en.wikipedia.org/wiki/Marc_Gen%C3%A9
58	57	hakkinen	\N	\N	Mika	HÃ¤kkinen	9/28/1968	Finnish	http://en.wikipedia.org/wiki/Mika_H%C3%A4kkinen
99	98	deletraz	\N	\N	Jean-Denis	DÃ©traz	10/1/1963	Swiss	http://en.wikipedia.org/wiki/Jean-Denis_Deletraz
110	109	lehto	\N	\N	Jyrki	JÃ¶rvelihto	1/31/1966	Finnish	http://en.wikipedia.org/wiki/Jyrki_J%C3%A4rvelihto
160	159	sala	\N	\N	Luis	PÃ©rez-Sala	5/15/1959	Spanish	http://en.wikipedia.org/wiki/Luis_Perez-Sala
219	218	londono	\N	\N	Ricardo	LondoÃ±o	8/8/1949	Colombian	http://en.wikipedia.org/wiki/Ricardo_Londo%C3%B3
258	258	neve	\N	\N	Patrick	NÃ©ve	10/13/1949	Belgian	http://en.wikipedia.org/wiki/Patrick_Neve
278	277	leclerc	\N	\N	Michel	LeclÃ¨re	3/18/1946	French	http://en.wikipedia.org/wiki/Michel_LeclÃ¨re
312	311	belso	\N	\N	Tom	BelsÃ³	8/27/1942	Danish	http://en.wikipedia.org/wiki/Tom_Bels%C3%B8
440	439	estefano	\N	\N	Nasif	EstÃ©fano	11/18/1932	Argentine	http://en.wikipedia.org/wiki/Nasif_Est%C3%A9fano
500	498	gonzale	\N	\N	JosÃ©	FÃ©lix GonzÃ¡lez	10/5/1922	Argentinian	http://en.wikipedia.org/wiki/Jos%C3%A9_FÃ©lix_Gonz%C3%A1lez
634	632	frere	\N	\N	Paul	FrÃ©re	1/30/1917	Belgian	http://en.wikipedia.org/wiki/Paul_Fr%C3%A9re
672	670	marimon	\N	\N	Onofre	MarimÃ³n	12/19/1923	Argentine	http://en.wikipedia.org/wiki/Onofre_Marim%C3%B3n
697	695	galvez	\N	\N	Oscar	GÃ¡lvez	8/17/1913	Argentine	http://en.wikipedia.org/wiki/Oscar_G%C3%A1lvez
743	741	etancelin	\N	\N	Philippe	AÃ©tancelin	1896-12-28	French	http://en.wikipedia.org/wiki/Philippe_A%C3%A9tancelin
794	792	pian	\N	\N	Alfredo	PiÃ±	10/21/1912	Argentine	http://en.wikipedia.org/wiki/Alfredo_Pi%C3%A1n
808	806	oscar_gc	\N	\N	Ã“scar	GonzÃ¡lez	11/10/1923	Uruguayan	http://en.wikipedia.org/wiki/Oscar_Gonz%C3%A3ez_(racing_driver)
809	807	hulkenberg	27	HUL	Nico	HÃ¼lkenberg	8/19/1987	German	http://en.wikipedia.org/wiki/Nico_H%C3%BClkenberg
818	815	perez	11	PER	Sergio	PÃ©rez	1/26/1990	Mexican	http://en.wikipedia.org/wiki/Sergio_P%C3%A9rez

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Formula 1 World Championship For Tableau

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Queries & Connections

Get & Transform Data

SUM

E2&" "&F2

Merging Names

1	driverId	driverRef	number	code	Firstname	Lastname	Driver Full Name	dob	nationality	url
1	1	hamilton	44	HAM	Lewis	Hamilton	=E2&" "&F2	1/7/1985	British	http://en.wikipedia.org/wiki/Lewis_Hamilton
2	2	heidfeld	\N	HEI	Nick	Heidfeld		5/10/1977	German	http://en.wikipedia.org/wiki/Nick_Heidfeld
3	3	rosberg	6	ROS	Nico	Rosberg		6/27/1985	German	http://en.wikipedia.org/wiki/Nico_Rosberg
4	4	alonso	14	ALO	Fernando	Alonso		7/29/1981	Spanish	http://en.wikipedia.org/wiki/Fernando_Alonso
5	5	kovalainen	\N	KOV	Heikki	Kovalainen		10/19/1981	Finnish	http://en.wikipedia.org/wiki/Heikki_Kovalainen
6	6	nakajima	\N	NAK	Kazuki	Nakajima		1/11/1985	Japanese	http://en.wikipedia.org/wiki/Kazuki_Nakajima
7	7	bourdais	\N	BOU	SÃ©bastien	Bourdais		2/28/1979	French	http://en.wikipedia.org/wiki/S%C3%A9bastien_Bourdais
8	8	raikkonen	7	RAI	Kimi	RÃ¤ikkÃ¶nen		10/17/1979	Finnish	https://en.wikipedia.org/wiki/Kimi_R%C3%A4ikk%C3%A4nen
9	9	kubica	88	KUB	Robert	Kubica		12/7/1984	Polish	http://en.wikipedia.org/wiki/Robert_Kubica
10	10	glock	\N	GLO	Timo	Glock		3/18/1982	German	http://en.wikipedia.org/wiki/Timo_Glock
11	11	sato	\N	SAT	Takuma	Sato		1/28/1977	Japanese	http://en.wikipedia.org/wiki/Takuma_Sato
12	12	piquet_jr	\N	PIQ	Nelson	Piquet Jr.		7/25/1985	Brazilian	http://en.wikipedia.org/wiki/Nelson_Piquet,_Jr.
13	13	massa	19	MAS	Felipe	Massa		4/25/1981	Brazilian	http://en.wikipedia.org/wiki/Felipe_Massa
14	14	coulthard	\N	COU	David	Coulthard		3/27/1971	British	http://en.wikipedia.org/wiki/David_Coulthard
15	15	trulli	\N	TRU	Jarno	Trulli		7/13/1974	Italian	http://en.wikipedia.org/wiki/Jarno_Trulli
16	16	sutil	99	SUT	Adrian	Sutil		1/11/1983	German	http://en.wikipedia.org/wiki/Adrian_Sutil
17	17	webber	\N	WEB	Mark	Webber		8/27/1976	Australian	http://en.wikipedia.org/wiki/Mark_Webber_(racing_driver)
18	18	button	22	BUT	Jenson	Button		1/19/1980	British	http://en.wikipedia.org/wiki/Jenson_Button
19	19	davidson	\N	DAV	Anthony	Davidson		4/18/1979	British	http://en.wikipedia.org/wiki/Anthony_Davidson
20	20	vettel	5	VET	Sebastian	Vettel		7/3/1987	German	http://en.wikipedia.org/wiki/Sebastian_Vettel
21	21	fisichella	\N	FIS	Giancarlo	Fisichella		1/14/1973	Italian	http://en.wikipedia.org/wiki/Giancarlo_Fisichella
22	22	barrichello	\N	BAR	Rubens	Barrichello		5/23/1972	Brazilian	http://en.wikipedia.org/wiki/Rubens_Barrichello
23	23	ralf_schumacher	\N	SCH	Ralf	Schumacher	</			

AutoSave Off Formula 1 World Championship For Tableau Search (Alt+Q) radhika tripurani RT

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Font Alignment Number

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A1 raceld year round circuitId Race name date time url

	A	B	C	D	E	F	G	I	J	K
1	raceld	year	round	circuitId	Race name	date	time	url	fp1_time	fp2_date
2	833	1950	1	9	British Grand Prix	5/13/1950 \N	http://		12:00:00	9/9/2022
3	834	1950	2	6	Monaco Grand Prix	5/21/1950 \N	http://		10:00:00	9/30/2022
4	835	1950	3	19	Indianapolis 500	5/30/1950 \N	http://		4:00:00	10/7/2022
5	836	1950	4	66	Swiss Grand Prix	6/4/1950 \N	http://		19:00:00	10/21/2022
6	837	1950	5	13	Belgian Grand Prix	6/18/1950 \N	http://		18:00:00	10/28/2022
7	838	1950	6	55	French Grand Prix	7/2/1950 \N	http://		15:30:00	11/12/2022
8	839	1950	7	14	Italian Grand Prix	9/3/1950 \N	http://		9:00:00	11/18/2022
9	825	1951	1	66	Swiss Grand Prix	5/27/1951 \N	http://		11:00:00	6/10/2022
10	826	1951	2	19	Indianapolis 500	5/30/1951 \N	http://		18:00:00	6/17/2022
11	827	1951	3	13	Belgian Grand Prix	6/17/1951 \N	http://		12:00:00	7/1/2022
12	828	1951	4	55	French Grand Prix	7/1/1951 \N	http://		11:30:00	7/9/2022
13	829	1951	5	9	British Grand Prix	7/14/1951 \N	http://		12:00:00	7/22/2022
14	830	1951	6	20	German Grand Prix	7/29/1951 \N	http://en.wikipedia.org/wiki/1951_German_Grand_Prix		12:00:00	7/29/2022
15	831	1951	7	14	Italian Grand Prix	9/16/1951 \N	http://en.wikipedia.org/wiki/1951_Italian_Grand_Prix		12:00:00	8/26/2022
16	832	1951	8	67	Spanish Grand Prix	10/28/1951 \N	http://en.wikipedia.org/wiki/1951_Spanish_Grand_Prix		12:00:00	9/2/2022
17	817	1952	1	66	Swiss Grand Prix	5/18/1952 \N	http://en.wikipedia.org/wiki/1952_Swiss_Grand_Prix		12:3/2021 \N	12/3/2021 \N
18	818	1952	2	19	Indianapolis 500	5/30/1952 \N	http://en.wikipedia.org/wiki/1952_Indianapolis_500		12/10/2021 \N	12/10/2021 \N
19	819	1952	3	13	Belgian Grand Prix	6/22/1952 \N	http://en.wikipedia.org/wiki/1952_Belgian_Grand_Prix		14:00:00	3/25/2022
20	820	1952	4	53	French Grand Prix	7/6/1952 \N	http://en.wikipedia.org/wiki/1952_French_Grand_Prix		3:00:00	4/8/2022
21	821	1952	5	9	British Grand Prix	7/19/1952 \N	http://en.wikipedia.org/wiki/1952_British_Grand_Prix		11:30:00	4/23/2022

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1	driveId	driverId	numb	code	Firstname	Lastname	dob	natio	url									
8	raikkonen	7	RAI	Kimi	Räikkönen		10/17/1979	Finnish	http://en.wikipedia.org/wiki/Kimi_Räikkönen									
49	gene	W	W	Marc	Gené		3/29/1974	Spanish	http://en.wikipedia.org/wiki/Marc_Gené	C%3A9								
58	hakkinen	W	W	Mika	Häkkinen		9/28/1968	Finnish	http://en.wikipedia.org/wiki/Mika_Häkkinen									
99	deletraz	W	W	Jean-Denis	Délétraz		10/1/1963	Swiss	http://en.wikipedia.org/wiki/Jean-Denis_Délétraz									
110	lehto	W	W	Jyrki	Järvilehto		1/31/1966	Finnish	http://en.wikipedia.org/wiki/Jyrki_Järvilehto									
160	sala	W	W	Luis	Pérez-Sala		5/15/1959	Spanish	http://en.wikipedia.org/wiki/Luis_Pérez-Sala									
219	londono	W	W	Ricardo	Londoño		8/8/1949	Colombian	http://en.wikipedia.org/wiki/Ricardo_Londoño	C%3B1o								
259	neve	W	W	Patrick	Návę		10/13/1949	Belgian	http://en.wikipedia.org/wiki/Patrick_Návę									
278	leclerc	W	W	Michel	Leclerc		3/18/1946	French	http://en.wikipedia.org/wiki/Michel_Leclerc	C%3A8re								
312	bels	W	W	Tom	Belis		8/27/1942	Danish	http://en.wikipedia.org/wiki/Tom_Belis	C%3B8								
440	estefano	W	W	Nasif	Estéfano		11/18/1932	Argentine	http://en.wikipedia.org/wiki/Nasif_Estéfano	C%3A9fano								
500	gonzale	\N	\N	José	Francisco		10/5/1922	Argentinian	http://en.wikipedia.org/wiki/José_Francisco_González	C%3A1lez								
634	frere	W	W	Paul	Frère		1/30/1917	Belgian	http://en.wikipedia.org/wiki/Paul_Frère	C%3A8re								
672	marimon	W	W	Onofre	Marimón		12/19/1923	Argentine	http://en.wikipedia.org/wiki/Onofre_Marimón	C%3B3n								
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808	oscar_gc	\N	\N	Áscar	González		11/10/1923	Uruguayan	http://en.wikipedia.org/wiki/Oscar_González_(racing_driver)	C%3A1ez								
809	hulkenberg	27	HUL	Nico	Hülkenberg		8/19/1987	German	http://en.wikipedia.org/wiki/Nico_Hülkenberg									
816	perez	11	PER	Sergio	Pérez		1/26/1990	Mexican	http://en.wikipedia.org/wiki/Sergio_Pérez	C%3A9rez								
822	gutierrez	21	GUT	Esteban	Gutiérrez		8/5/1991	Mexican	http://en.wikipedia.org/wiki/Esteban_Gutiérrez	C%3A9rrez								

Formatting Dates

AutoSave Off Formula 1 World Championship Search (Alt+Q) radhika tripurani RT

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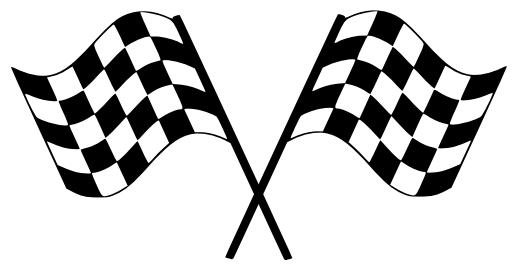
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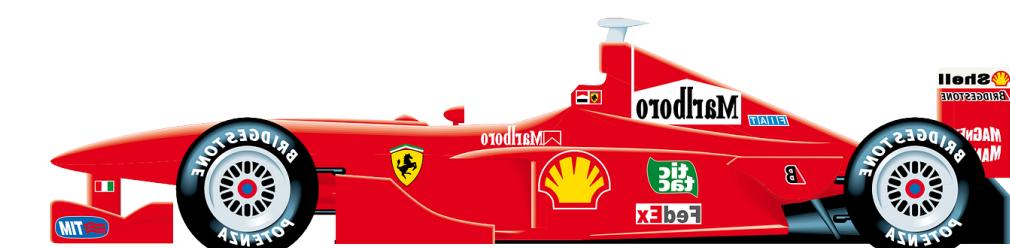
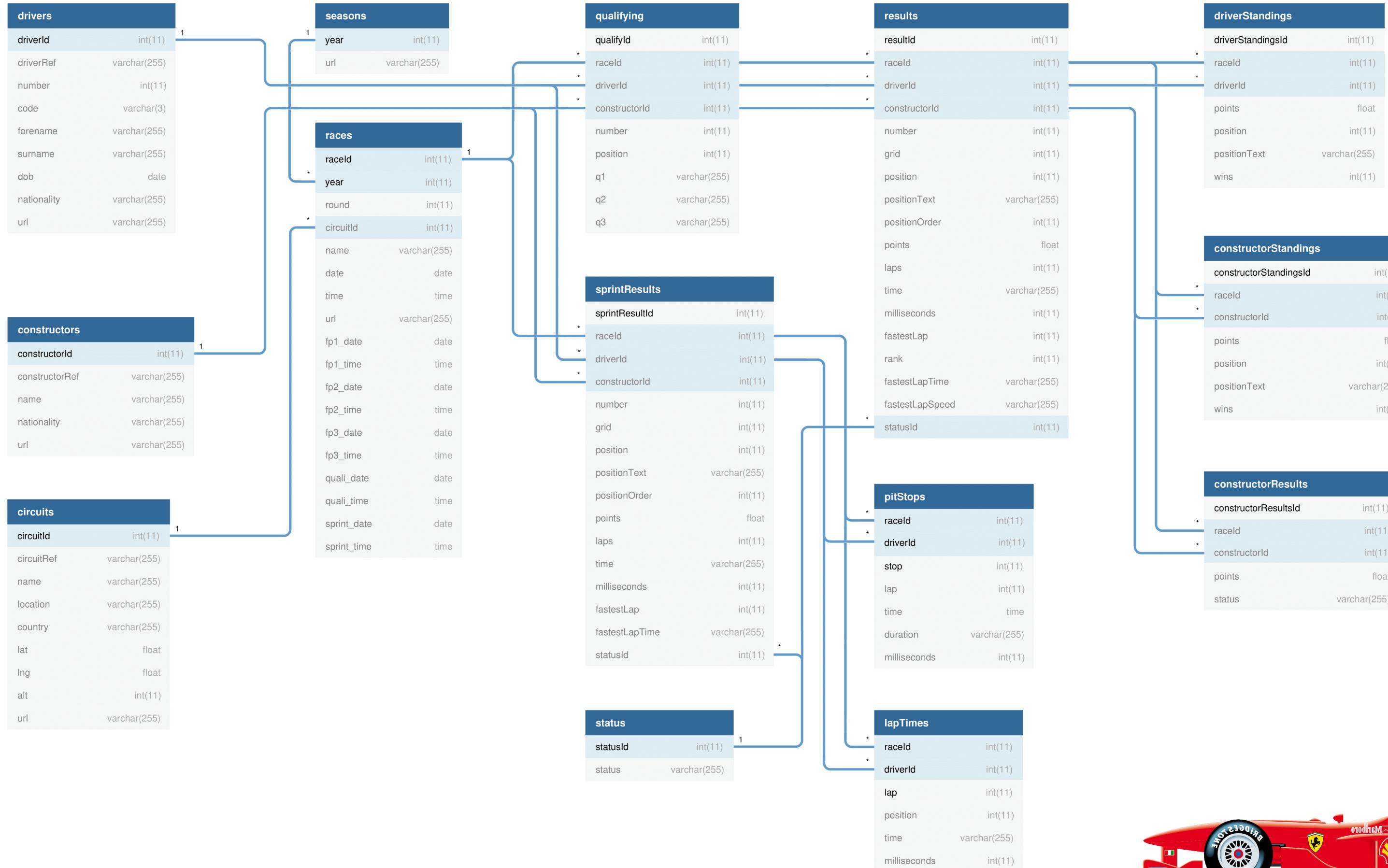
D5 Montmeló

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	circuitId	circuitRef	Actual name of circuit	City	Country	Latitude	Longitude	Altitude	Wikipedia URL					
5	4	catalunya	Circuit de Barcelona-Catalunya	Montmeló	Spain	41.57	2.26111	109	http://en.wikipedia.org/wiki/Circuit_de_Barcelona-Catalunya					
19	18	interlagos	Autódromo José Carlos Pace	São Paulo	Brazil	-23.7036	-46.6997	785	http://en.wikipedia.org/wiki/Autódromo_José_Carlos_Pace					
21	20	nurburgring	Nürburgring	Nürburg	Germany	50.3356	6.9475	578	http://en.wikipedia.org/wiki/Nürburgring					
73	75	portimao	Autódromo Internacional do Algarve	Portimão	Portugal	37.227	-8.6267	108	http://en.wikipedia.org/wiki/Algarve_International_Circuit					
78														
79														
80														





Formula1 Entity Relationship Map



Analysing Data using SQL



#1 Finding locations that hosted maximum number of races

```
SELECT c.city as "City", count(r.circuitId) as "Races Hosted"
FROM f1.circuits c, f1.races r
WHERE r.circuitId = c.circuitId
GROUP BY c.city
ORDER BY count(r.circuitId) desc;
```

A	B	C	
1	Country	City	Races Hosted
2	Italy	Monza	72
3	Monaco	Monte-Carlo	68
4	UK	Silverstone	57
5	Belgium	Spa	55
6	Canada	Montreal	41
7	Germany	Nürburg	41
8	Brazil	São Paulo	39
9	Germany	Hockenheim	37
10	Hungary	Budapest	37
11	Austria	Spielberg	36
12	Spain	Montmeló	32
13	Japan	Suzuka	32
14	Netherlands	Zandvoort	32
15	Italy	Imola	30
16	Australia	Melbourne	25
17	Mexico	Mexico City	22
18	Argentina	Buenos Aires	20
19	South Africa	Midrand	20
20	USA	New York	20

#2 Finding the circuits that have hosted the opening races

```
SELECT r.name as "Grand Prix Name", c.name as "Circuit Name",
c.city as "City",
c.country as "Country", count(r.circuitId) as "Opening Races Hosted"
FROM f1.circuits c, f1.races r
WHERE r.circuitid = c.circuitid and r.round = 1
GROUP BY "City"
ORDER BY "Opening Races Hosted" desc;
```

A	B		C	D	E
1	Grand Prix Name	Circuit Name	City	Country	Opening Races Hosted
1	Australian Grand Prix	Albert Park Grand Prix Circuit	Melbourne	Australia	22
2	Argentine Grand Prix	Autódromo Oscar y Juan Gálvez	Buenos Aires	Argentina	15
3	South African Grand Prix	Kyalami	Midrand	South Africa	8
4	Brazilian Grand Prix	Autodromo Internacional Nelson Piquet	Rio de Janeiro	Brazil	7
5	Monaco Grand Prix	Circuit de Monaco	Monte-Carlo	Monaco	5
6	Bahrain Grand Prix	Bahrain International Circuit	Sakhir	Bahrain	4
7	Brazilian Grand Prix	Autódromo José Carlos Pace	São Paulo	Brazil	3
8	United States Grand Prix	Phoenix street circuit	Phoenix	USA	2
9	Swiss Grand Prix	Circuit Bremgarten	Bern	Switzerland	2
10	United States Grand Prix West	Grand Prix of Long Beach	Clockwise	USA	1
11	South African Grand Prix	Prince George Circuit	Eastern Cape Province	South Africa	1
12	Dutch Grand Prix	Circuit Park Zandvoort	Zandvoort	Netherlands	1
13	British Grand Prix	Silverstone Circuit	Silverstone	UK	1
14	Austrian Grand Prix	Red Bull Ring	Spielberg	Austria	1

#3 Number of races hosted by every country

```
SELECT c.country as "Country",
count(r.circuitId)as "Races Hosted"
FROM f1.circuits c, f1.races r
WHERE r.circuitid = c.circuitid
GROUP BY c.country
ORDER BY count(r.circuitId) desc;
```

A		
1	Country	Races Hosted
2	Italy	104
3	Germany	79
4	UK	77
5	USA	73
6	Monaco	68
7	Belgium	67
8	France	63
9	Spain	59
10	Canada	51
11	Brazil	49
12	Japan	38
13	Hungary	37
14	Austria	37
15	Australia	36
16	Netherlands	32
17	South Africa	23
18	Mexico	22
19	Argentina	20
20	Malaysia	19
21	Bahrain	19
22	Portugal	18
23	China	16
24	UAE	14
25	Singapore	13
26	Turkey	9
27	Russia	8
28	Sweden	6
29	Azerbaijan	6
30	Switzerland	5
31	South Korea	4
32	India	3
33	Saudi Arabia	2
34	Morocco	1
35	Qatar	1

Analysing Data using SQL



#4 All time constructor points and leaders

```
SELECT c.name as "Constructor", c.nationality as
"Nationality", sum(points) as "Total Points"
FROM f1.constructor_results r, f1.constructors c
WHERE c.constructorId = r.constructorId
GROUP BY c.name
ORDER BY sum(points) desc
LIMIT 20;
```

	A	B	C
1	Constructor	Nationality	Total Points
2	Ferrari	Italian	9096
3	Mercedes	German	6603
4	Red Bull	Austrian	6061
5	McLaren	British	6026
6	Williams	British	3594
7	Renault	French	1777
8	Force India	Indian	1098
9	Team Lotus	British	918
10	Benetton	Italian	862
11	Lotus F1	British	706
12	Tyrrell	British	621
13	Brabham	British	595
14	Sauber	Swiss	557
15	Toro Rosso	Italian	500
16	BRM	British	439
17	Ligier	French	388
18	BMW Sauber	German	308
19	Jordan	Irish	291
20	Racing Point	British	283

#5 Number of constructors from each country

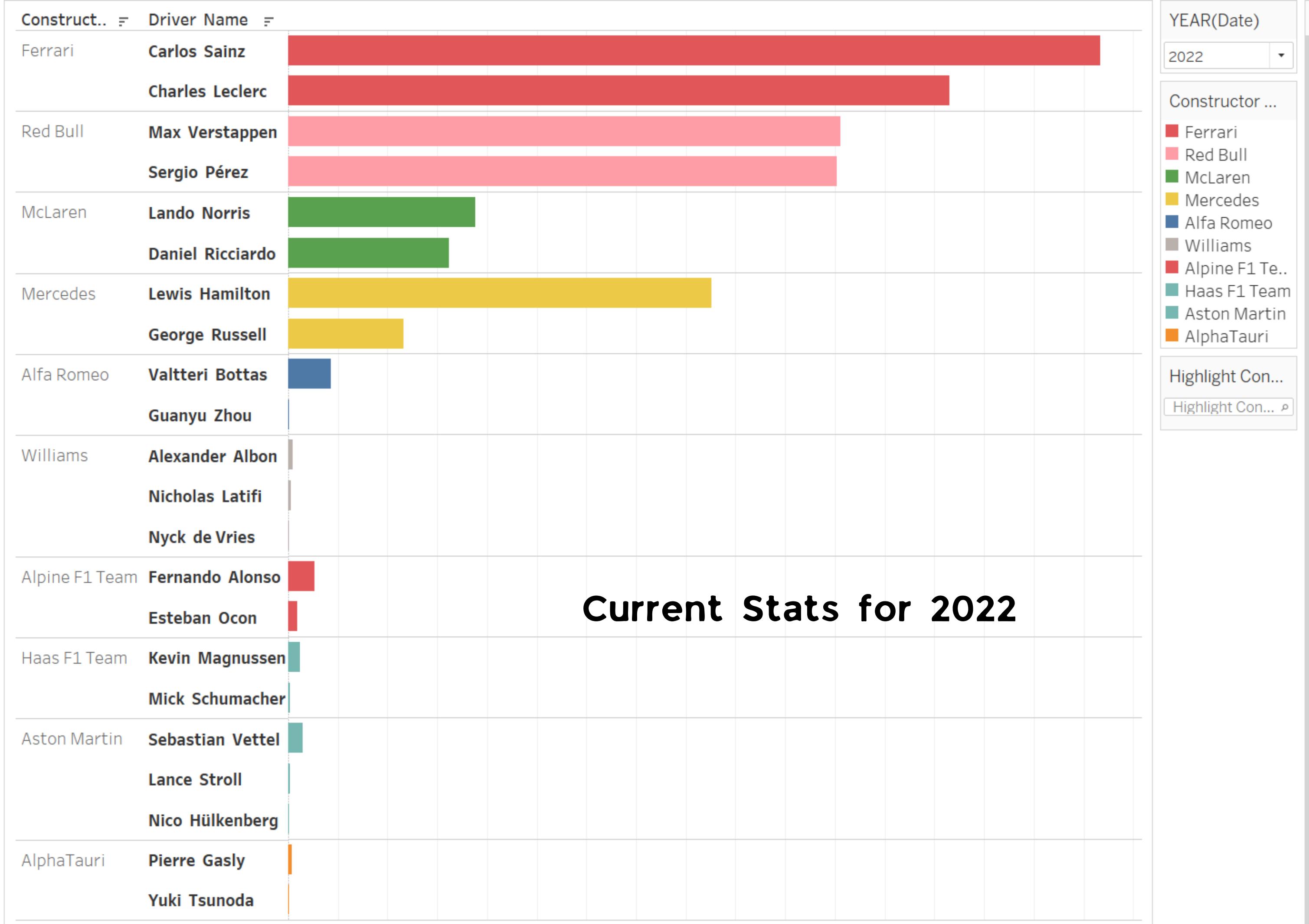
```
SELECT nationality as "Nationality",
count(constructorId) as "Number of Constructors"
FROM f1.constructors
GROUP BY nationality
ORDER BY count(constructorId) desc;
```

A	B	
1	Nationality	Number of Constructors
2	British	86
3	American	39
4	Italian	29
5	French	13
6	German	10
7	Japanese	5
8	Swiss	5
9	Dutch	3
10	South African	3
11	Russian	2
12	Canadian	2
13	Malaysian	2
14	Austrian	1
15	Indian	1
16	Irish	1
17	Hong Kong	1
18	Brazilian	1
19	Mexican	1
20	Australian	1
21	New Zealander	1
22	Rhodesian	1
23	Belgian	1
24	East German	1
25	Spanish	1

#8 Finding the fastest laps on each circuit

```
SELECT c.city as "City", r.year as "Year of race", min(l.time) as "Lap Time", `Driver Full
Name` as "Driver Name"
FROM f1.circuits c, f1.lap_times l, f1.races r, f1.drivers d
WHERE l.raceId = r.raceId
AND r.circuitId = c.circuitId
AND l.driverId = d.driverId
GROUP BY c.city
ORDER BY c.city ;
```

A	B	C	D	E	
1	Grand Prix Name	Driver	Fastest Q1 time	Fasstes Q2 time	Fastest Q3 time
2	70th Anniversary Grand Prix	Valtteri Bottas	01:26.7	01:25.8	01:25.2
3	Abu Dhabi Grand Prix	Lewis Hamilton	01:35.9	01:35.6	01:34.8
4	Australian Grand Prix	Lewis Hamilton	01:16.2	01:21.0	01:20.5
5	Austrian Grand Prix	Valtteri Bottas	01:04.1	01:03.0	01:02.9
6	Azerbaijan Grand Prix	Valtteri Bottas	01:42.0	01:41.3	01:40.5
7	Bahrain Grand Prix	Lewis Hamilton	01:28.3	01:27.6	01:27.3
8	Belgian Grand Prix	Lewis Hamilton	01:42.3	01:41.6	01:41.3
9	Brazilian Grand Prix	Lewis Hamilton	01:08.2	01:07.5	01:07.3
10	British Grand Prix	Sebastian Vettel	01:18.2	01:18.1	01:19.5
11	Canadian Grand Prix	Sebastian Vettel	01:11.2	01:11.1	01:10.2
12	Chinese Grand Prix	Sebastian Vettel	01:32.2	01:31.7	01:31.1
13	Eifel Grand Prix	Valtteri Bottas	01:26.6	01:26.0	01:25.3
14	Emilia Romagna Grand Prix	Valtteri Bottas	01:14.2	01:14.6	01:13.6
15	European Grand Prix	Fernando Alonso	01:18.7	01:30.3	01:29.8
16	French Grand Prix	Felipe Massa	01:13.7	01:14.8	01:15.0
17	German Grand Prix	Sebastian Vettel	01:12.5	01:12.1	01:11.2
18	Hungarian Grand Prix	Lewis Hamilton	01:14.9	01:14.3	01:13.4
19	Indian Grand Prix	Sebastian Vettel	01:25.9	01:24.6	01:24.1
20	Italian Grand Prix	Lewis Hamilton	01:19.5	01:19.1	01:18.9



At a Glance



- Italy is country that hosted highest number of races
 - Ferrari is a current leader in Constructors
 - Lewis Hamilton is the driver with most wins
 - Even though US is in fourth position for hosting highest number of races , currently there are no American drivers
-



- Trend for number of races per season has been increasing showing that the demand is increasing
- Younger drivers have been entering the circuits. Forecast showing that the drivers will still get younger

References



- [https://www.kaggle.com/datasets/rohanrao/formula-1-world-championship-1950-2020?
select=circuits.csv](https://www.kaggle.com/datasets/rohanrao/formula-1-world-championship-1950-2020?select=circuits.csv)
- <http://ergast.com/mrd/>
- https://en.wikipedia.org/wiki/Formula_One



Any
Questions





Thank you
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Contact Me

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- <https://public.tableau.com/app/profile/radhika.t>