

CODERHOUSE

PROYECTO FINAL

PROFESOR:

CESAR ARACENA

TUTOR:

NICOLAS E. COSTANTE

INTEGRANTE:

AUGUSTO BARCHI

TEMÁTICA: “Estadística Formula 1”

2022

PROYECTO

1. Propuesta

El conjunto de datos consta de toda la información sobre las carreras de Fórmula 1, pilotos, constructores, clasificación, circuitos, tiempos de vuelta, paradas en boxes y campeonatos desde 1950 hasta la última temporada de 2021.

1.1. Fuente de datos:

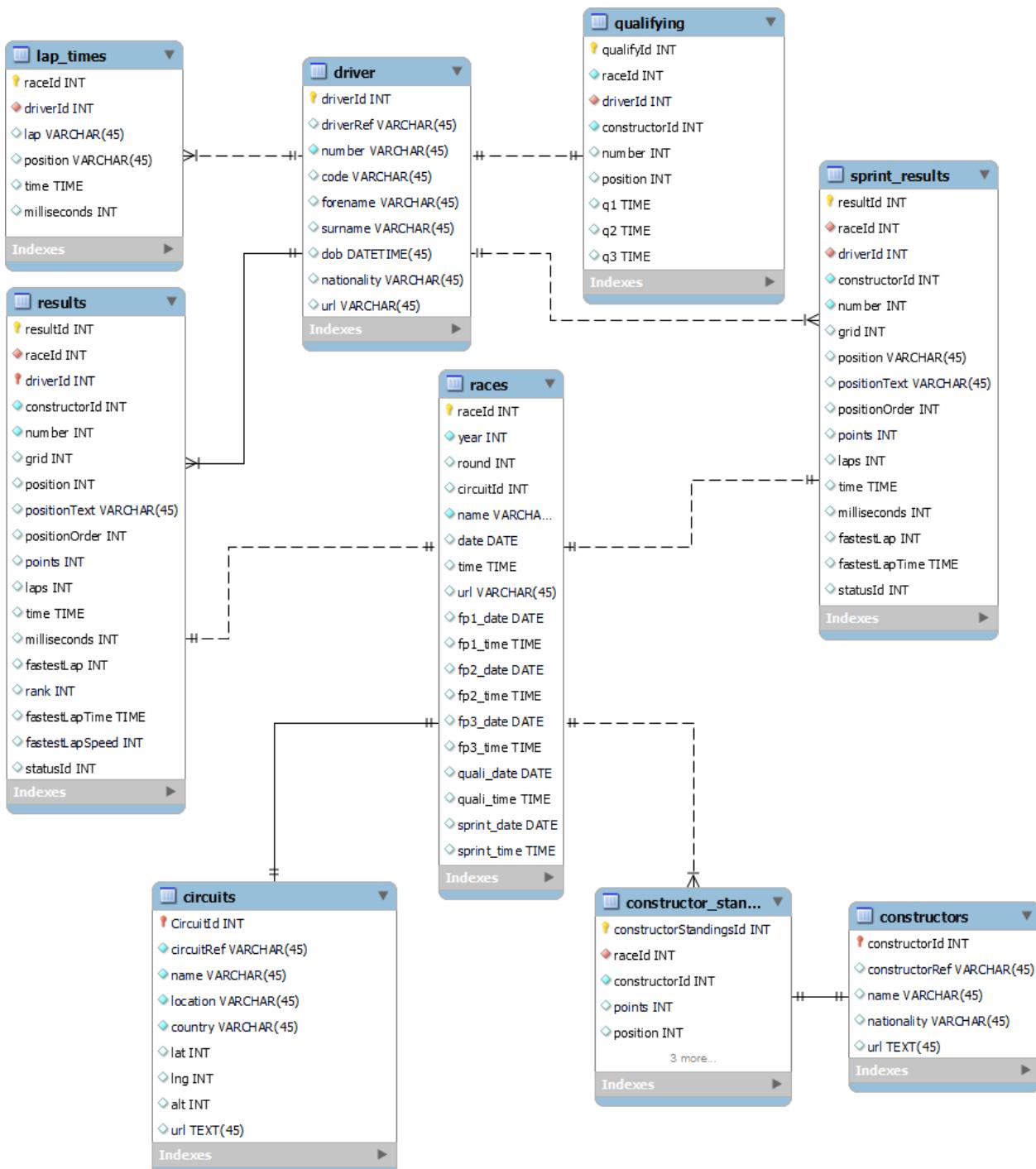
El data set o fuente de dato fue obtenida de:

<https://www.kaggle.com/datasets/rohanrao/formula-1-world-championship-1950-2020>

Trata de “Campeonato del Mundo de Fórmula 1 (1950 - 2022)” son varios archivos se llaman “circuits.csv, constructor_results.csv, constructor_standings.csv, constructors.csv, driver_standings.csv, driver_standings.csv, drivers.csv, lap_times.csv, pit_stops.csv, qualifying.csv, races.csv, results.csv, seasons.csv, sprint_results.csv, status.csv”.

PROYECTO

2. Diagrama Entidad-Relación



PROYECTO

3. Descripción de tablas

Tabla	Lap_time						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS TIEMPOS DE VUELTA						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	raceId	INT		NOT NULL		AUTO_INCREMENT	id primario la carrera
FK	driverId	INT		NOT NULL			numero de id del piloto
	lap	VARCHAR	45				vuelta
	position	VARCHAR	45				posicion
	time	TIME					tiempo
	milliseconds	INT					tiempo en milisegundos

Tabla	driver						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS PILOTOS						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	driverId	INT		NOT NULL		AUTO_INCREMENT	numero de id del piloto
	driverRef	VARCHAR	45	NOT NULL			apellido del piloto de referencia
	number	VARCHAR	45				numero del piloto
	code	VARCHAR	45				abreviacion de piloto
	forename	VARCHAR	45				nombre del piloto
	surname	VARCHAR	45				apellido del piloto
	dob	DATETIME					fecha de nacimiento
	nationality	VARCHAR	45				nacionalidad
	url						link de wikipedia de su perfil

Tabla	qualifying						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LA CALIFICACION						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	qualifyId	INT		NOT NULL		AUTO_INCREMENT	numero de id de la calificacion
FK	raceId	INT		NOT NULL			numero de id de la carrera
FK	driverId	INT		NOT NULL			numero de id del piloto
	constructorId	INT		NOT NULL			numero de id del constructor
	number	INT					numero del piloto
	position	INT					posicion del piloto
	q1	TIME					clasificacion 1 de la vuelta
	q2	TIME					clasificacion 2 de la vuelta
	q3	TIME					clasificacion 3 de la vuelta

PROYECTO

Tabla	results						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS RESULTADOS DE LA CARRERA						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	resultId	INT		NOT NULL		AUTO_INCREMENT	numero de id de la calificacion
FK	raceId	INT		NOT NULL			numero de id de la carrera
FK	driverId	INT		NOT NULL			numero de id del piloto
FK	constructorId	INT		NOT NULL			numero de id del constructor
	number	INT					numero del piloto
	grid	INT					gilla de largada
	position	INT					posicion de largada
	positionText	VARCHAR	45				posicion de largada
	positionOrder	INT					posicion final
	points	INT					puntos del campeonato
	laps	INT					vueltas
	time	INT					tiempo de vuelta
	milliseconds	INT					tiempo de vuelta en milisegundos
	fastestlap	INT					vuelta de la vuelta rapida
	rank	INT					ranking
	fastestlapTime	TIME					tiempo de la vuelta rapida
	fastestlapSpeed	INT					velocidad maxima de la vuelta rapida
	statusId	INT					numero de id del status

Tabla	circuits						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS CIRCUITOS						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	circuitId	INT		NOT NULL		AUTO_INCREMENT	numero de id del circuito
	circuitRef	VARCHAR	45				nombre de referencia del circuito
	name	VARCHAR	45				nombre del circuito
	location	VARCHAR	45				ciudad
	country	VARCHAR	45				pais
	lat	INT					latitud
	lng	INT					longitud
	alt	INT					altitud
	url	TEXT	45				pagina web del circuito

PROYECTO

Tabla	races						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LA CALIFICACION						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	raceld	INT		NOT NULL		AUTO_INCREMENT	numero de id de la calificacion
	year	INT					año de la carrera
	round	INT					numero de la carrera
	circuitId	INT		NOT NULL			numero de id del circuito
	name	VARCHAR	45				nombre de la carrera
	date	DATE					fecha de la carrera
	time	TIME					tiempo de la carrera
	url	VARCHAR	45				pagina web de la carrera
	fp1_date	DATE					fecha de la carrera
	fp1_time	TIME					tiempo de la carrera
	fp2_date	DATE					fecha de la carrera
	fp2_time	TIME					tiempo de la carrera
	fp3_date	DATE					fecha de la carrera
	fp3_time	TIME					tiempo de la carrera
	quali_date	DATE					fecha de la calificacion
	quali_time	TIME					tiempo de la calificacion
	sprint_date	DATE					fecha de la carrera
	sprint_time	TIME					tiempo de la carrera

Tabla	constructor_standings						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LA CLASIFICACION DEL CONSTRUCTOR						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	constructorStandingsId	INT		NOT NULL		AUTO_INCREMENT	Id del constructor
FK	raceld	INT					numero de id de la carrera
FK	constructorId	INT					numero de id del constructor
	points	INT					puntos de constructor
	position	INT					posicion
	positionText	INT					posicion en texto
	wins	INT					ganadas

PROYECTO

Tabla	constructor						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DEL CONSTRUCTOR						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	constructorId	INT		NOT NULL		AUTO_INCREMENT	Id del constructor
	constructorRef	VARCHAR	45				referencia del constructor
	name	VARCHAR	45				nombre del constructor
	nationality	VARCHAR	45				nacionalidad
	url	TEXT	45				página web del constructor

Tabla	sprint_result						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS RESULTADOS DE LA CARRERA						
KEY	COLUMN	TYPE	LENGTH	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	resultId	INT		NOT NULL		AUTO_INCREMENT	numero de id de la calificación
FK	raceId	INT		NOT NULL			numero de id de la carrera
FK	driverId	INT		NOT NULL			numero de id del piloto
FK	constructorId	INT		NOT NULL			numero de id del constructor
	number	INT					numero del piloto
	grid	INT					grida de largada
	position	INT					posición de largada
	positionText	VARCHAR	45				posición de largada
	positionOrder	INT					posición final
	points	INT					puntos del campeonato
	laps	INT					vueltas
	time	INT					tiempo de vuelta
	milliseconds	INT					tiempo de vuelta en milisegundos
	fastestlap	INT					vuelta de la vuelta rápida
	rank	INT					ranking
	fastestlapTime	TIME					tiempo de la vuelta rápida
	fastestlapSpeed	INT					velocidad máxima de la vuelta rápida
	statusId	INT					numero de id del status

Puede ver los archivos de la creación de las tablas desde aquí:

<https://github.com/Augustobar1991/Proyecto-Coderhouse-SQL/blob/main/Script/Schema%20y%20Tablas.sql>

PROYECTO

4. Script de inserción de datos

Puede ver las querys de inserción de datos desde aquí:

<https://github.com/Augustobar1991/Proyecto-Coderhouse-SQL/tree/main/Script>

Carga manual de la tabla circuits

```

1 • INSERT INTO circuits
2   VALUE (1,"albert_park","Albert Park Grand Prix Circuit","Melbourne","Australia",-37.8497,144.968,10,"http://en.wikipedia.org/wiki/Melbourne_Grand_Prix_Circuit")
3   (2,"sepang","Sepang International Circuit","Kuala Lumpur","Malaysia",2.76083,101.738,18,"http://en.wikipedia.org/wiki/Sepang_International_Circuit")
4   (3,"bahrain","Bahrain International Circuit","Sakhir","Bahrain",26.0325,50.5106,7,"http://en.wikipedia.org/wiki/Bahrain_International_Circuit")
5   (4,"catalunya","Circuit de Barcelona-Catalunya","MontmelÃ³","Spain",41.57,2.26111,109,"http://en.wikipedia.org/wiki/Circuit_de_Barcelona-Catalunya")
6   (5,"istanbul","Istanbul Park","Istanbul","Turkey",40.9517,29.405,130,"http://en.wikipedia.org/wiki/Istanbul_Park")
7   (6,"monaco","Circuit de Monaco","Monte-Carlo","Monaco",43.7347,7.42056,7,"http://en.wikipedia.org/wiki/Circuit_de_Monaco")
8   (7,"villeneuve","Circuit Gilles Villeneuve","Montreal","Canada",45.83,-73.5228,13,"http://en.wikipedia.org/wiki/Circuit_Gilles_Villeneuve")
9   (8,"magny_cours","Circuit de Nevers Magny-Cours","Magny Cours","France",46.8642,3.16361,228,"http://en.wikipedia.org/wiki/Circuit_de_Nevers_Magny-Cours")
10  (9,"silverstone","Silverstone Circuit","Silverstone","UK",52.0786,-1.01694,153,"http://en.wikipedia.org/wiki/Silverstone_Circuit")
11  (10,"hockenheimring","Hockenheimring","Hockenheim","Germany",49.3278,8.56583,183,"http://en.wikipedia.org/wiki/Hockenheimring")
12  (11,"hungaroring","Hungaroring","Budapest","Hungary",47.5789,19.2486,284,"http://en.wikipedia.org/wiki/Hungaroring")
13  (12,"valencia","Valencia Street Circuit","Valencia","Spain",39.4589,-0.331667,4,"http://en.wikipedia.org/wiki/Valencia_Street_Circuit")
14  (13,"spa","Circuit de Spa-Francorchamps","Spa","Belgium",50.4372,5.97139,401,"http://en.wikipedia.org/wiki/Circuit_de_Spa-Francorchamps")
15  (14,"monza","Autodromo Nazionale di Monza","Monza","Italy",45.6156,9.28111,162,"http://en.wikipedia.org/wiki/Autodromo_Nazionale_Monza")
16  (15,"marina_bay","Marina Bay Street Circuit","Marina Bay","Singapore",1.2914,103.864,18,"http://en.wikipedia.org/wiki/Marina_Bay_Street_Circuit")
17  (16,"fujii","Fuji Speedway","Oyama","Japan",35.3717,138.927,583,"http://en.wikipedia.org/wiki/Fuji_Speedway")
18  (17,"shanghai","Shanghai International Circuit","Shanghai","China",31.3389,121.22,5,"http://en.wikipedia.org/wiki/Shanghai_International_Circuit")
19  (18,"interlagos","Autódromo José Carlos Pace","SÃ£o Paulo","Brazil",-23.7036,-46.6997,785,"http://en.wikipedia.org/wiki/Aut%C3%B3dromo_Jos%C3%A9_Carlos_Pace")
20  (19,"indianapolis","Indianapolis Motor Speedway","Indianapolis","USA",39.795,-86.2347,223,"http://en.wikipedia.org/wiki/Indianapolis_Motor_Speedway")
21  (20,"nurburgring","NÃ¼rburgring","NÃ¼rburg","Germany",50.3356,6.9475,578,"http://en.wikipedia.org/wiki/N%C3%BCrburgring")
22  (21,"imola","Autodromo Enzo e Dino Ferrari","Imola","Italy",44.3439,11.7167,37,"http://en.wikipedia.org/wiki/Autodromo_Enzo_e_Dino_Ferrari")
23  (22,"suzuka","Suzuka Circuit","Suzuka","Japan",34.8431,136.541,45,"http://en.wikipedia.org/wiki/Suzuka_Circuit")
24  (24,"yas_marina","Yas Marina Circuit","Abu Dhabi","UAE",24.4672,54.6031,3,"http://en.wikipedia.org/wiki/Yas_Marina_Circuit")
25  (25,"galvez","Autódromo Juan y Oscar Gálvez","Buenos Aires","Argentina",-34.6943,-58.4593,8,"http://en.wikipedia.org/wiki/Aut%C3%B3dromo_Juan_y_Oscar_G%C3%A1lvez")
26  (26,"monza_2010","Autodromo Nazionale di Monza","Monza","Italy",45.6156,9.28111,162,"http://en.wikipedia.org/wiki/Autodromo_Nazionale_Monza_2010")

```

Chequeado de que se haya realizado la carga de la tabla circuits

circuitid	circuitRef	name	location	country	lat	lng	alt	url
1	albert_park	Albert Park Grand Prix Circuit	Melbourne	Australia	-38	145	10	http://en.wikipedia.org/wiki/Melbourne_Grand_Prix_Circuit
2	sepang	Sepang International Circuit	Kuala Lumpur	Malaysia	3	102	18	http://en.wikipedia.org/wiki/Sepang_International_Circuit
3	bahrain	Bahrain International Circuit	Sakhir	Bahrain	26	51	7	http://en.wikipedia.org/wiki/Bahrain_International_Circuit
4	catalunya	Circuit de Barcelona-Catalunya	MontmelÃ³	Spain	42	2	109	http://en.wikipedia.org/wiki/Circuit_de_Barcelona-Catalunya
5	istanbul	Istanbul Park	Istanbul	Turkey	41	29	130	http://en.wikipedia.org/wiki/Istanbul_Park
6	monaco	Circuit de Monaco	Monte-Carlo	Monaco	44	7	7	http://en.wikipedia.org/wiki/Circuit_de_Monaco
7	villeneuve	Circuit Gilles Villeneuve	Montreal	Canada	46	-74	13	http://en.wikipedia.org/wiki/Circuit_Gilles_Villeneuve
8	magny_cours	Circuit de Nevers Magny-Cours	Magny Cours	France	47	3	228	http://en.wikipedia.org/wiki/Circuit_de_Nevers_Magny-Cours
9	silverstone	Silverstone Circuit	Silverstone	UK	52	-1	153	http://en.wikipedia.org/wiki/Silverstone_Circuit
10	hockenheimring	Hockenheimring	Hockenheim	Germany	49	9	103	http://en.wikipedia.org/wiki/Hockenheimring
11	hungaroring	Hungaroring	Budapest	Hungary	48	19	264	http://en.wikipedia.org/wiki/Hungaroring
12	valencia	Valencia Street Circuit	Valencia	Spain	39	0	4	http://en.wikipedia.org/wiki/Valencia_Street_Circuit
13	spa	Circuit de Spa-Francorchamps	Spa	Belgium	50	6	401	http://en.wikipedia.org/wiki/Circuit_de_Spa-Francorchamps
14	monza	Autodromo Nazionale di Monza	Monza	Italy	46	9	162	http://en.wikipedia.org/wiki/Autodromo_Nazionale_di_Monza
15	marina_bay	Marina Bay Street Circuit	Marina Bay	Singapore	1	104	18	http://en.wikipedia.org/wiki/Marina_Bay_Street_Circuit

PROYECTO

Carga de la tabla constructor_standings

The screenshot shows the MySQL Workbench interface. In the top right, the 'Table Data Import' dialog is open, displaying a SQL query to select all data from the 'constructor_standings' table. Below it, the 'Result Grid' shows the imported data. The grid has columns: constructorStandingsId, raceId, constructorId, points, position, positionText, wins, and constructor_standingscol. The data consists of 15 rows of constructor standing information.

constructorStandingsId	raceId	constructorId	points	position	positionText	wins	constructor_standingscol
1	18	1	14	1	1	1	NULL
2	18	2	8	3	3	0	NULL
3	18	3	9	2	2	0	NULL
4	18	4	5	4	4	0	NULL
5	18	5	2	5	5	0	NULL
6	18	6	1	6	6	0	NULL
7	19	1	24	1	1	1	NULL
8	19	2	19	2	2	0	NULL
9	19	3	9	4	4	0	NULL
10	19	4	6	5	5	0	NULL
11	19	5	2	8	8	0	NULL
12	19	6	11	3	3	1	NULL
13	19	7	5	6	6	0	NULL
14	19	9	2	7	7	0	NULL
15	19	11	0	9	9	0	NULL

Chequeado de que se haya realizado la carga de la tabla constructor_standings

The screenshot shows the MySQL Workbench interface. The 'Result Grid' displays the results of a 'SELECT * FROM constructor_standings' query. The data is identical to the one shown in the previous screenshot, consisting of 15 rows of constructor standing information.

constructorStandingsId	raceId	constructorId	points	position	positionText	wins	constructor_standingscol
1	18	1	14	1	1	1	NULL
2	18	2	8	3	3	0	NULL
3	18	3	9	2	2	0	NULL
4	18	4	5	4	4	0	NULL
5	18	5	2	5	5	0	NULL
6	18	6	1	6	6	0	NULL
7	19	1	24	1	1	1	NULL
8	19	2	19	2	2	0	NULL
9	19	3	9	4	4	0	NULL
10	19	4	6	5	5	0	NULL
11	19	5	2	8	8	0	NULL
12	19	6	11	3	3	1	NULL
13	19	7	5	6	6	0	NULL
14	19	9	2	7	7	0	NULL
15	19	11	0	9	9	0	NULL

PROYECTO

Chequeado de que se haya realizado la carga de la tabla constructors

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema 'f1' with tables: circuits, constructor_standings, constructor, driver, lap_times, qualifying, races, results, sprint_results.
- Tables SQL:** Contains the following SQL code:


```

1 • SELECT * FROM circuits
2
3 • SELECT * FROM constructor_standings
4
5 • SELECT * FROM constructors
6
7 SELECT * FROM driver
8
9 SELECT * FROM lap_times -- falta arreglar
      
```
- Result Grid:** Displays the data from the 'constructors' table, which lists 17 constructors with their details (constructorId, constructorRef, name, nationality, url). The data includes entries like McLaren, BMW Sauber, Williams, Renault, Toro Rosso, Ferrari, Toyota, Super Aguri, Red Bull, Force India, Honda, Spyker, MF1, Spyker MF1, Sauber, BAR, and Jordan.
- Output:** Shows the execution details:

Action Output	#	Time	Action	Message	Duration / Fetch
	90	18:24:31	SELECT * FROM constructors --falta LIMIT 0, 1000	211 row(s) returned	0.000 sec / 0.000 sec

Carga manual de la tabla driver

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema 'f1' with tables: circuits, constructor_standings, constructors, driver, lap_times, qualifying, races, results, sprint_results.
- Tables SQL:** Contains the following SQL code:


```

1 • insert into driver values (1,"hamilton","Lewis","Hamilton",07/01/1985,"British","http://en.wikipedia.org/wiki/Lewis_Hamilton"),
2 ("heidfeld",null,"HEI","Nick","Heidfeld",10/05/1977,"German","http://en.wikipedia.org/wiki/Nick_Heidfeld"),
3 (3,"rosberg",6,"ROS","Nico","Rosberg",27/06/1985,"German","http://en.wikipedia.org/wiki/Nico_Rosberg"),
4 (4,"alonso",14,"ALO","Fernando","Alonso",29/07/1981,"Spanish","http://en.wikipedia.org/wiki/Fernando_Alonso"),
5 (5,"kovalainen",null,"KOV","Heikki","Kovalainen",19/10/1981,"Finnish","http://en.wikipedia.org/wiki/Heikki_Kovalainen"),
6 (6,"nakajima",null,"NAK","Kazuki","Nakajima",11/01/1985,"Japanese","http://en.wikipedia.org/wiki/Kazuki_Nakajima"),
7 (7,"bourdais",null,"BOU","Sébastien","Bourdais",28/02/1979,"French","http://en.wikipedia.org/wiki/S%C3%A9bastien_Bourdais"),
8 (8,"raikkonen",7,"RAI","Kimi","Raikkonen",17/07/1979,"Finnish","http://en.wikipedia.org/wiki/Kimi_Raikk%C3%B6nen"),
9 (9,"kubica",88,"KUB","Robert","Kubica",07/12/1984,"Polish","http://en.wikipedia.org/wiki/Robert_Kubica"),
10 (10,"glock",null,"GLO","Timo","Glock",18/03/1982,"German","http://en.wikipedia.org/wiki/Timo_Glock"),
11 (11,"sato",null,"SAT","Takuma","Sato",28/01/1977,"Japanese","http://en.wikipedia.org/wiki/Takuma_Sato"),
12 (12,"piquet_jr",null,"PIQ","Nelson","Piquet Jr.",25/07/1985,"Brazilian","http://en.wikipedia.org/wiki/Nelson_Piquet,_Jr."),
13 (13,"massa",19,"MAS","Felipe","Massa",25/04/1981,"Brazilian","http://en.wikipedia.org/wiki/Felipe_Massa"),
14 (14,"culthard",null,"COU","David","Coulthard",27/03/1971,"British","http://en.wikipedia.org/wiki/David_Coulthard"),
15 (15,"trulli",null,"TRU","Jarno","Trulli",13/07/1974,"Italian","http://en.wikipedia.org/wiki/Jarno_Trulli"),
16 (16,"utili",99,"SUT","Adrian","Utili",11/01/1983,"German","http://en.wikipedia.org/wiki/Adrian_Utili"),
17 (17,"webber",null,"WEB","Mark","Webber",27/08/1976,"Australian","http://en.wikipedia.org/wiki/Mark_Webber_(racing_driver)"),
18 (18,"button",22,"BUT","Jenson","Button",10/01/1980,"British","http://en.wikipedia.org/wiki/Jenson_Button"),
19 (19,"davidson",null,"DAV","Anthony","Davidson",18/04/1979,"British","http://en.wikipedia.org/wiki/Anthony_Davidson"),
20 (20,"vettel",5,"VET","Sebastian","Vettel",03/07/1987,"German","http://en.wikipedia.org/wiki/Sebastian_Vettel"),
21 (21,"fisichella",null,"FIS","Giancarlo","Fisichella",14/01/1973,"Italian","http://en.wikipedia.org/wiki/Giancarlo_Fisichella"),
22 (22,"barrichello",null,"BAR","Rubens","Barrichello",23/05/1972,"Brazilian","http://en.wikipedia.org/wiki/Rubens_Barrichello"),
23 (23,"ralf_schumacher",null,"SCH","Ralf","Schumacher",30/06/1975,"German","http://en.wikipedia.org/wiki/Ralf_Schumacher"),
24 (24,"liuzzi",null,"LIU","Vitantonio","Liuzzi",06/08/1980,"Italian","http://en.wikipedia.org/wiki/Vitantonio_Liuzzi"),
25 (25,"wurz",null,"WUR","Alexander","Wurz",15/02/1974,"Austrian","http://en.wikipedia.org/wiki/Alexander_Wurz"),
26 (26,"speed",null,"SPE","Scott","Speed",24/01/1983,"American","http://en.wikipedia.org/wiki/Scott_Speed"),
      
```
- Output:** Shows the execution details:

Action Output	#	Time	Action	Message	Duration / Fetch
	872	12:44:32	Insert into driver values (855,"zhou",24,"ZHO","Guanyu","Zhou",30/05/1999,"Chinese","http://en.wikipedia.o...)	1 row(s) affected	0.000 sec

PROYECTO

Chequeado de que se haya realizado la carga de la tabla driver

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Toolbar:** Includes icons for Home, SQL, DDL, Scripts, Database, Server, Tools, Help, and various search/filter options.
- Navigator:** Shows the schema f1 with tables: circuits, constructor_standing, constructors, driver, lap_times, qualifying, races, results, sprint_results, Views, Stored Procedures, Functions, gammers_model, sakila, sys.
- Current Window:** Tabla SQL tab, showing the following SQL code:


```

1 • SELECT * FROM circuits
2
3 ✓ SELECT * FROM constructor_standings
4
5 SELECT * FROM constructors
6
7 SELECT * FROM driver
8
9 SELECT * FROM lap_times
10
11 SELECT * FROM qualifying
      
```
- Result Grid:** Displays the results of the last query (SELECT * FROM driver). The grid has columns: driverId, driverRef, number, code, forename, surname, dob, nationality, url. The data includes rows for drivers like Hamilton, Rosberg, Alonso, etc., with their respective details and Wikipedia links.
- Output:** Action Output tab shows the query: "SELECT * FROM driver LIMIT 0, 1000" and the message: "854 row(s) returned".
- Bottom Navigation:** Object Info and Session tabs.

Chequeado de que se haya realizado la carga de la tabla lap_times

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Toolbar:** Includes icons for Home, SQL, DDL, Scripts, Database, Server, Tools, Help, and various search/filter options.
- Navigator:** Shows the schema f1 with tables: circuits, constructor_standing, constructors, driver, lap_times, qualifying, races, results, sprint_results, Views, Stored Procedures, Functions, gammers_model, sakila, sys.
- Current Window:** Tabla SQL tab, showing the following SQL code:


```

2
3 ✓ SELECT * FROM constructor_standings
4
5 SELECT * FROM constructors
6
7 SELECT * FROM driver
8
9 SELECT * FROM lap_times
10
      
```
- Result Grid:** Displays the results of the last query (SELECT * FROM lap_times). The grid has columns: Id, raceId, driverId, lap, position, time, milliseconds. The data includes multiple rows for raceId 841, showing lap times for various drivers across different laps.
- Output:** Action Output tab shows the query: "SELECT * FROM lap_times --falta arreglar LIMIT 0, 1000" and the message: "1000 row(s) returned".
- Bottom Navigation:** Object Info and Session tabs.

PROYECTO

Chequeado de que se haya realizado la carga de la tabla qualifying

The screenshot shows the MySQL Workbench interface with the 'Local instance MySQL80' connection selected. In the Navigator pane, the 'Tables' section is expanded, showing tables like circuits, constructor_standing, constructors, driver, lap_times, qualifying, races, results, and sprint_results. The 'Schemas' section also lists f1, gammers_model, sakila, and sys. The central SQL editor window contains the following query:

```

SELECT * FROM constructor_standings
SELECT * FROM constructors
SELECT * FROM driver
SELECT * FROM lap_times
SELECT * FROM qualifying
    
```

The Result Grid displays the data from the qualifying table, which has 17 rows. The columns are qualifyId, raceId, driverId, constructorId, number, position, q1, q2, and q3. The data shows various driver numbers (e.g., 1, 2, 5, 13, 2, 15) and constructor IDs (e.g., 1, 2, 5, 13, 2, 15) across different races.

The Output pane shows the following log entry:

```

# Time Action
27 17:52:21 SELECT * FROM qualifying LIMIT 0, 1000
Message 1000 row(s) returned
Duration / Fetch 0.000 sec / 0.000 sec
    
```

Chequeado de que se haya realizado la carga de la tabla races

The screenshot shows the MySQL Workbench interface with the 'Local instance MySQL80' connection selected. In the Navigator pane, the 'Tables' section is expanded, showing tables like circuits, constructor_standing, constructors, driver, lap_times, qualifying, races, results, and sprint_results. The 'Schemas' section also lists f1, gammers_model, sakila, and sys. The central SQL editor window contains the following query:

```

SELECT * FROM constructors
SELECT * FROM driver
SELECT * FROM lap_times
SELECT * FROM qualifying
SELECT * FROM races
    
```

The Result Grid displays the data from the races table, which has 16 rows. The columns include raceId, year, round, circuitId, name, date, time, url, fp1_date, fp1_time, fp2_date, fp2_time, fp3_date, fp3_time, quali_date, quali_time, and sprint. The data lists various Formula 1 races from 2009, such as the Australian Grand Prix, Malaysian Grand Prix, Chinese Grand Prix, Bahrain Grand Prix, Spanish Grand Prix, Monaco Grand Prix, Turkish Grand Prix, British Grand Prix, German Grand Prix, Hungarian Grand Prix, European Grand Prix, Belgian Grand Prix, Italian Grand Prix, Singapore Grand Prix, Japanese Grand Prix, and Brazilian Grand Prix.

The Output pane shows the following log entry:

```

# Time Action
25 17:51:05 SELECT * FROM races LIMIT 0, 1000
Message 1000 row(s) returned
Duration / Fetch 0.000 sec / 0.015 sec
    
```

PROYECTO

Chequeado de que se haya realizado la carga de la tabla results

The screenshot shows the MySQL Workbench interface with the following details:

- File Menu:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas (f1), Tables, Views, Stored Procedures, Functions, gamblers_model, sakila, sys, Administration, Schemas, Information.
- SQL Editor:** Shows the following SQL code:


```

7  SELECT * FROM driver
8
9  SELECT * FROM lap_times -- falta arreglar
10
11 SELECT * FROM qualifying
12
13 SELECT * FROM races
14
15 SELECT * FROM results
      
```
- Result Grid:** Displays the results of the last query (SELECT * FROM results). The grid has columns: resultId, raceId, driverId, constructorId, number, grid, position, positionText, positionOrder, points, laps, time, milliseconds, fastestLap, rank, fastestLapTime, fastestLapSpeed, statusId. The data shows 18 rows of race results.
- Action Output:** Shows the command: "10 19:20:48 SELECT * FROM results LIMIT 0, 1000" and the message: "1000 row(s) returned".
- Object Info:** Session tab is selected.

Chequeado de que se haya realizado la carga de la tabla sprint_results

The screenshot shows the MySQL Workbench interface with the following details:

- File Menu:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas (f1), Tables, Views, Stored Procedures, Functions, gamblers_model, sakila, sys, Administration, Schemas, Information.
- SQL Editor:** Shows the following SQL code:


```

9  SELECT * FROM lap_times
10
11 SELECT * FROM qualifying
12
13 SELECT * FROM races
14
15 SELECT * FROM results
16
17 SELECT * FROM sprint_results
      
```
- Result Grid:** Displays the results of the last query (SELECT * FROM sprint_results). The grid has columns: resultId, raceId, driverId, constructorId, number, grid, position, positionText, positionOrder, points, laps, time, milliseconds, fastestLap, fastestLapTime, statusId. The data shows 17 rows of sprint results.
- Action Output:** Shows the command: "47 18:03:58 SELECT * FROM sprint_results LIMIT 0, 1000" and the message: "100 row(s) returned".
- Object Info:** Session tab is selected.

PROYECTO

5. Creación de vistas

Puede ver la query de la creación de las vistas desde aquí:

https://github.com/Augustobar1991/Proyecto-Coderhouse-SQL/tree/main/Script/Vistas_F1.sql

Creación y select de la vista “datos_del_piloto”:

The screenshot shows the MySQL Workbench interface. The top bar has tabs for 'Schema y Tablas' and 'Insertar tabla demas tablas auto...'. The main area is titled 'Vistas F1'. Below the title is a toolbar with various icons. A status bar at the bottom says 'Limit to 1000 rows'.

```

1 • CREATE OR REPLACE VIEW `datos_del_piloto` AS -- driver qualifying constructos
2   select d.driverId,
3         d.surname as Apellido,
4         d.forename as Nombre,
5         d.nationality as Nacionalidad,
6         d.`code` as Codigo,
7         d.dob as Fecha_Nacimiento,
8         q.constructorId,
9         c.`name` as Nombre_Escuderia,
10        c.nationality as Nacionalidad_Escuderia
11    from driver d
12    left join qualifying q on q.driverId=d.driverId
13    left join constructors c on c.constructorId=q.constructorId
14   group by driverId;
15
16  select * from datos_del_piloto;
  
```

Below the code, there is a 'Result Grid' table with the following data:

driverId	Apellido	Nombre	Nacionalidad	Codigo	Fecha_Nacimiento	constructorId	Nombre_Escuderia	Nacionalidad_Escuderia
1	Hamilton	Lewis	British	HAM	1985-01-07	131	Mercedes	German
2	Heidfeld	Nick	German	HEI	1977-05-10	4	Renault	French
3	Rosberg	Nico	German	ROS	1985-06-27	131	Mercedes	German
4	Alonso	Fernando	Spanish	ALO	1981-07-29	214	Alpine F1 Team	French
5	Kovalainen	Heikki	Finnish	KOV	1981-10-19	205	Lotus	Malaysian
6	Nakajima	Kazuki	Japanese	NAK	1985-01-11	3	Williams	British
7	Bourdais	Sébastien	French	BOU	1979-02-28	5	Toro Rosso	Italian
8	Räikkönen	Kimi	Finnish	RÄT	1979-10-17	51	Alfa Romeo	Swiss

PROYECTO

Creación y select de la vista “estadistica_del_piloto_escuderia”:

```

18 CREATE OR REPLACE VIEW `estadistica_del_piloto_escuderia` AS -- driver qualifying constructos constructor_standings
19 select d.driverId,
20       q.raceId,
21       q.constructorId,
22       q.qualifyId,
23       r.date as Fecha,
24       r.name as Nombre_Circuito,
25       d.surname as Piloto,
26       c.`name` as Nombre_Escuderia,
27       c.nationality as Nacionalidad_Escuderia,
28       q.`number` as Numero_Piloto,
29       q.position as Posicion,
30       cs.points as Puntos,
31       q.q1 as Cuali_1,
32       q.q2 as Cuali_2,
33       q.q3 as Cuali_3
34   from driver d
35   left join qualifying q on q.driverId=d.driverId
36   left join constructors c on c.constructorId=q.constructorId
37   left join constructor_standings cs on cs.constructorId=q.constructorId
38   left join races r on r.raceId=q.raceId
39   group by q.raceId;

```

Result Grid																
<input type="button" value="Filter Rows"/> <input type="button" value="Export: CSV"/> <input type="button" value="Wrap Cell Content: TA"/>																
driverId	raceId	constructorId	qualifyId	Fecha	Nombre_Circuito	Piloto	Nombre_Escuderia	Nacionalidad_Escuderia	Numero_Piloto	Posicion	Puntos	Cuali_1	Cuali_2	Cuali_3		
1	902	131	5905	2014-04-06	Bahrain Grand Prix	Hamilton	Mercedes	German	44	2	304	1:35.323	1:33.872	1:33.464		
1	901	131	5882	2014-03-30	Malaysian Grand Prix	Hamilton	Mercedes	German	44	1	304	1:57.202	1:59.041	1:59.431		
1	900	131	5860	2014-03-16	Australian Grand Prix	Hamilton	Mercedes	German	44	1	304	1:31.699	1:42.890	1:44.231		
1	899	131	5842	2013-11-24	Brazilian Grand Prix	Hamilton	Mercedes	German	10	5	304	1:25.342	1:26.698	1:27.677		
1	898	131	5820	2013-11-17	United States Grand Prix	Hamilton	Mercedes	German	10	5	304	1:37.959	1:37.854	1:37.345		
1	897	131	5797	2013-11-13	Abu Dhabi Grand Prix	Hamilton	Mercedes	German	10	4	304	1:40.603	1:40.477	1:40.501		

PROYECTO

Creación y select de la vista “resultados_por_carrera_del_piloto”:

```

42 • CREATE OR REPLACE VIEW `resultados_por_carrera_del_piloto` AS -- driver races lap_times
43     select d.driverId,
44             l.raceId,
45             d.surname as Apellido,
46             r.date as Fecha,
47             r.name as Nombre_Circuito,
48             max(l.lap) as Vuelta,
49             l.position as Posicion,
50             l.time as Tiempo
51     from driver d
52     left join lap_times l on l.driverId=d.driverId
53     left join races r on r.raceId=l.raceId
54     group by raceId;
55
56 • select * from resultados_por_carrera_del_piloto;

```

Result Grid								
	driverId	raceId	Apellido	Fecha	Nombre_Circuito	Vuelta	Posicion	Tiempo
1	848	Hamilton	2011-06-26	European Grand Prix	57	4	01:43:00	
1	847	Hamilton	2011-06-12	Canadian Grand Prix	70	7	01:37:01	
1	846	Hamilton	2011-05-29	Monaco Grand Prix	78	6	01:19:00	
1	845	Hamilton	2011-05-22	Spanish Grand Prix	66	2	01:28:00	
1	844	Hamilton	2011-05-08	Turkish Grand Prix	58	4	01:31:00	
1	843	Hamilton	2011-04-17	Chinese Grand Prix	56	1	01:43:00	
1	842	Hamilton	2011-04-10	Malaysian Grand Prix	56	7	01:41:01	
1	841	Hamilton	2011-03-27	Australian Grand Prix	58	2	01:34:01	
55	222	Alesi	1997-10-12	Japanese Grand Prix	53	6	01:40:01	
55	221	Alesi	1997-09-28	Luxembourg Grand Prix	67	2	01:20:00	
55	220	Alesi	1997-09-21	Austrian Grand Prix	71	12	01:37:01	
55	219	Alesi	1997-09-07	Italian Grand Prix	53	2	01:26:01	
55	218	Alesi	1997-08-24	Belgian Grand Prix	44	9	02:01:01	
55	217	Alesi	1997-08-10	Hungarian Grand Prix	77	11	01:29:01	

PROYECTO

Creación y select de la vista “mejores_resultados_del_piloto”:

```

58 • CREATE OR REPLACE VIEW `mejores_resultados_del_piloto` AS -- driver qualifying constructs
59     select      d.driverId,
60             d.surname as Apellido,
61             r.grid as Grilla,
62             r.position as Posicion,
63             r.points as Puntos,
64             r.laps as Vuelta,
65             r.`time` as Tiempo,
66             r.fastestLap as Mejor_Vuelta,
67             r.rank` as Ranking,
68             r.fastestLapTime as Tiempo_Mejor_Vuelta,
69             r.fastestLapSpeed as Velocidad_Maxima_Vuelta
70     from driver d
71     left join results r on r.driverId=d.driverId;
72
73 • select * from mejores_resultados_del_piloto;

```

Result Grid											
	driverId	Apellido	Grilla	Posicion	Puntos	Vuelta	Tiempo	Mejor_Vuelta	Ranking	Tiempo_Mejor_Vuelta	Velocidad_Maxima_Vuelta
1	Hamilton	2	3	6	61	00:00:06	14	4	01:46:00	172	
1	Hamilton	15	7	2	53	00:00:30	52	5	01:29:01	232	
1	Hamilton	1	3	6	44	00:00:11	20	2	01:48:00	233	
1	Hamilton	2	2	8	57	00:00:06	16	2	01:38:01	197	
1	Hamilton	1	5	4	70	00:00:23	15	3	01:21:00	194	
1	Hamilton	1	1	10	67	01:31:21	17	2	01:16:00	217	
1	Hamilton	4	1	10	60	01:39:09	16	3	01:32:01	199	
1	Hamilton	13	10	0	70	00:00:55	40	5	01:17:00	205	
1	Hamilton	1	HULL	0	19	HULL	4	3	01:17:01	203	
1	Hamilton	3	1	10	76	02:00:43	71	6	01:18:01	153	
1	Hamilton	3	2	8	58	00:00:04	31	2	01:26:01	222	
1	Hamilton	5	3	6	66	00:00:04	20	3	01:22:00	204	
1	Hamilton	3	13	0	56	HULL	25	19	01:35:01	204	

PROYECTO

Creación y select de la vista “temporada”:

```

75 • CREATE OR REPLACE VIEW `temporada` AS -- circuits/races
76   select      r.raceId,
77             r.`year`  as Año,
78             r.`name`  as Nombre_circuito,
79             r.`date`   as Fecha_Carrera,
80             r.`time`   as Hora,
81             c.location as Locacion,
82             c.country  as Pais,
83             r.fp1_date,
84             r.fp1_time,
85             r.fp2_date,
86             r.fp2_time,
87             r.fp3_date,
88             r.fp3_time,
89             r.quali_date,
90             r.quali_time,
91             r.sprint_date,
92             r.sprint_time
93   from circuits c
94   left join races r on c.circuitId=r.circuitId
95   order by r.`year` DESC;
96 • select * from temporada;
```

Result Grid																	
	raceId	Año	Nombre_circuito	Fecha_Carrera	Hora	Locacion	Pais	fp1_date	fp1_time	fp2_date	fp2_time	fp3_date	fp3_time	quali_date	quali_time	sprint_date	sprint_time
1076	2022	Australian Grand Prix	2022-04-10	05:00:00	Melbourne	Australia	2022-04-08	03:00:00	2022-04-08	06:00:00	2022-04-09	03:00:00	2022-04-09	06:00:00	NULL	NULL	
1074	2022	Bahrain Grand Prix	2022-03-20	15:00:00	Sakhir	Bahrain	2022-03-18	12:00:00	2022-03-18	15:00:00	2022-03-19	12:00:00	2022-03-19	15:00:00	NULL	NULL	
1079	2022	Spanish Grand Prix	2022-05-22	13:00:00	MontmelÃ³	Spain	2022-05-20	12:00:00	2022-05-20	15:00:00	2022-05-21	11:00:00	2022-05-21	14:00:00	NULL	NULL	
1080	2022	Monaco Grand Prix	2022-05-29	13:00:00	Monte-Carlo	Monaco	2022-05-27	12:00:00	2022-05-27	15:00:00	2022-05-28	11:00:00	2022-05-28	14:00:00	NULL	NULL	