

# CODERHOUSE

## PROYECTO FINAL

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**TEMÁTICA:**

“Estadística Formula 1”

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# 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:

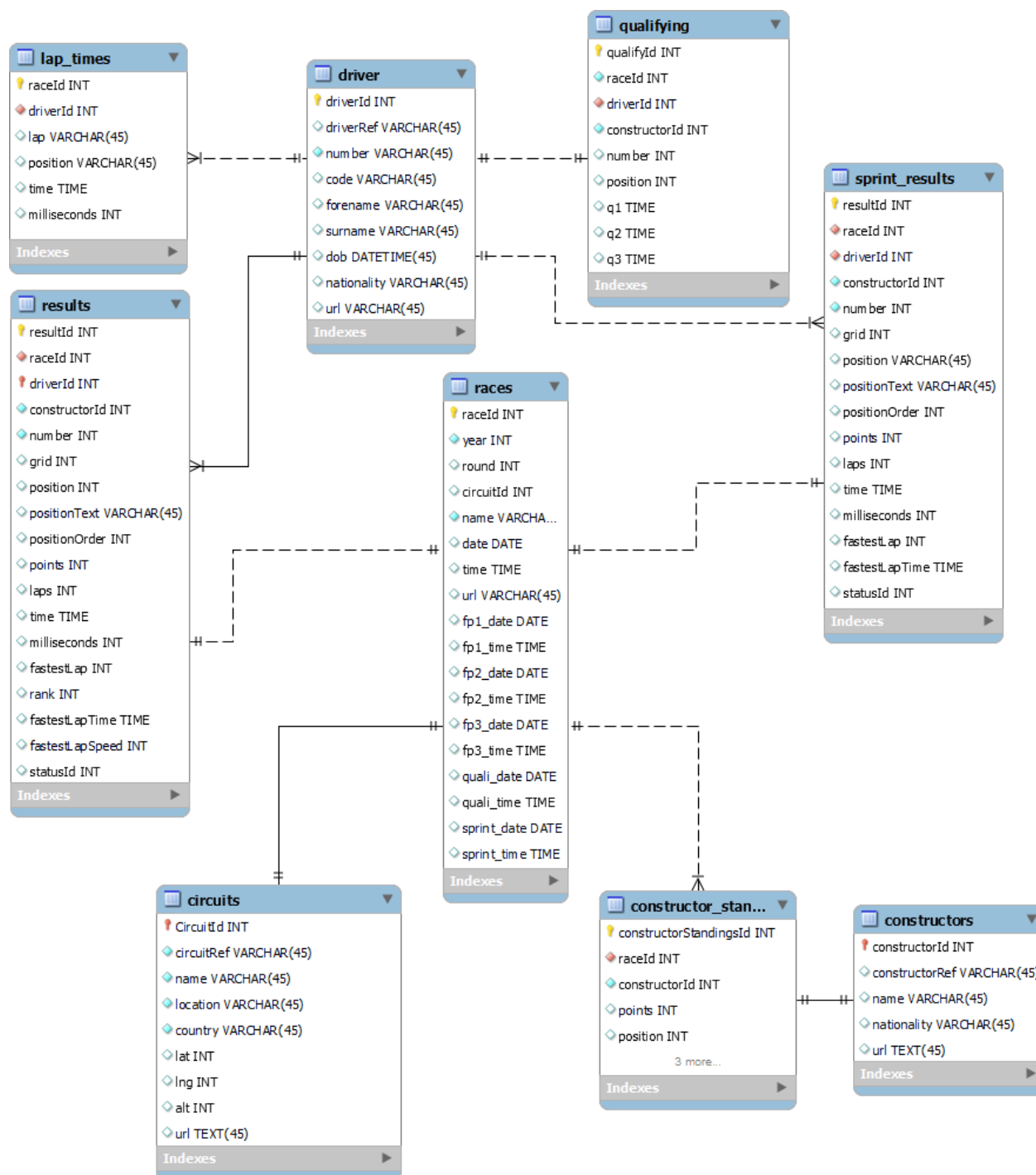
El data set o fuente de dato fue obtenida de:

<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	LENGHT	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	raceld	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	LENGHT	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	LENGHT	NOT NULL	UNIQUE	DEFAULT	NOTES
PK	qualifyId	INT		NOT NULL		AUTO_INCREMENT	numero de id de la calificacion
FK	raceld	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

<b>Tabla</b>	results						
<b>Descripción</b>	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS RESULTADOS DE LA CARRERA						
KEY	COLUMN	TYPE	LENGHT	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					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

<b>Tabla</b>	circuits						
<b>Descripción</b>	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS CIRCUITOS						
KEY	COLUMN	TYPE	LENGHT	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	LENGHT	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	LENGHT	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	LENGHT	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				pagina web del constructor

Tabla	sprint_result						
Descripción	TABLA DIMENSIONAL DONDE SE GUARDAN LOS DATOS DE LOS RESULTADOS DE LA CARRERA						
KEY	COLUMN	TYPE	LENGHT	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

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 queries de inserción de datos desde aquí:

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

Carga manual de la tabla circuits

MySQL Workbench

new connection x MySQL Model (F1.mwb) x EER Diagram x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

ejemplos

f1

Tables

circuits

constructor\_standings

constructors

driver

lap\_times

qualifying

results

sprint\_results

Views

Stored Procedures

Functions

gammers\_model

sys

Administration Schemas

Information

Table: circuits

Columns:

circuid int PK

name varchar(45)

location varchar(45)

country varchar(45)

lat int

lng int

alt int

url tinytext

Tablas SQL

Insertar tablas SQL

Limit to 1000 rows

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,"sepag","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","Montmeló","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",45.5,-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",49.3278,8.56583,103,"http://en.wikipedia.org/wiki/Hockenheimring"),

12 (11,"hungaroring","Hungaroring","Budapest","Hungary",47.5789,19.2486,264,"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,"fuji","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","São Paulo","Brazil",-23.7036,-46.6997,785,"http://en.wikipedia.org/wiki/Autódromo\_José\_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","Nürburgring","Nürburg","Germany",50.3356,6.9475,578,"http://en.wikipedia.org/wiki/Nürburgring"),

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/Autódromo\_Juan\_y\_Oscar\_Gálvez")

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

Action Output

# Time Action Message Duration / Fetch

88 22:02:38 Insert into circuits 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") 76 row(s) affected Records: 76 Duplicates: 0 Warnings: 0 0.000 sec

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

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

ejemplos

f1

Tables

circuits

constructor\_standings

constructors

driver

lap\_times

qualifying

results

sprint\_results

Views

Stored Procedures

Functions

gammers\_model

sys

Administration Schemas

Information

No object selected

Tablas SQL

Insertar tabla demas tablas auto.

Limit to 1000 rows

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

Filter Rows:

Edit Export/Import Wrap Cell Contents

circuid	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	sepag	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	Montmeló	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_Monza
15	marina_bay	Marina Bay Street Circuit	Marina Bay	Singapore	1	104	18	http://en.wikipedia.org/wiki/Marina_Bay_Street_Circuit

circuits 1 x

Output

Action Output

# Time Action Message Duration / Fetch

1 21:33:49 SELECT \* FROM circuits LIMIT 0, 1000 76 row(s) returned 0.000 sec / 0.000 sec



# PROYECTO

## Carga de la tabla constructor\_standings

MySQL Workbench

new connection x MySQL Model (F1.mwb) x EER Diagram x

File Edit View Query Database Server Tools Scripting Help

Navigator

Insertar tabla demas tablas auto...

1 select \* from circuits

2

3 select \* from constructor\_standings

Table Data Import

Select Destination

Select destination table and additional options.

Use existing table: f1.constructor\_standings

Create new table: f1 . constructor\_standings

Truncate table before import

Back Next > Cancel

Result Grid

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

constructor\_standings2 x

Output

Action Output

# Time Action

91 22:10:40 select \* from constructor\_standings LIMIT 0, 1000

Message

0 row(s) returned

Duration / Fetch

0.000 sec / 0.000 sec

## Chequeo de que se haya realizado la carga de la tabla constructor\_standings

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

Tablas SQL Insertar tabla demas tablas auto...

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

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

constructor\_standings5 x

Output

Action Output

# Time Action

4 22:11:48 SELECT \* FROM constructor\_standings LIMIT 0, 1000

Message

1000 row(s) returned

# PROYECTO

## Chequeo de que se haya realizado la carga de la tabla constructors

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'f1' database with tables like 'circuits', 'constructor\_standings', 'driver', 'lap\_times', 'qualifying', 'races', 'results', 'sprint\_results', 'views', 'stored\_procedures', 'functions', 'gamers\_model', 'sakila', 'sys', and 'world'. The 'Query' pane shows a SQL query:

```
SELECT * FROM constructors
```

The 'Result Grid' shows the following data:

constructorId	constructorRef	name	nationality	url
1	mclaren	McLaren	British	<a href="http://en.wikipedia.org/wiki/McLaren">http://en.wikipedia.org/wiki/McLaren</a>
2	bmw_sauber	BMW Sauber	German	<a href="http://en.wikipedia.org/wiki/BMW_Sauber">http://en.wikipedia.org/wiki/BMW_Sauber</a>
3	williams	Williams	British	<a href="http://en.wikipedia.org/wiki/Williams_Grand_Pri...">http://en.wikipedia.org/wiki/Williams_Grand_Pri...</a>
4	renault	Renault	French	<a href="http://en.wikipedia.org/wiki/Renault_in_Formul...">http://en.wikipedia.org/wiki/Renault_in_Formul...</a>
5	toro_rosso	Toro Rosso	Italian	<a href="http://en.wikipedia.org/wiki/Scuderia_Toro_Rosso">http://en.wikipedia.org/wiki/Scuderia_Toro_Rosso</a>
6	ferrari	Ferrari	Italian	<a href="http://en.wikipedia.org/wiki/Scuderia_Ferrari">http://en.wikipedia.org/wiki/Scuderia_Ferrari</a>
7	toyota	Toyota	Japanese	<a href="http://en.wikipedia.org/wiki/Toyota_Racing">http://en.wikipedia.org/wiki/Toyota_Racing</a>
8	super_aguri	Super Aguri	Japanese	<a href="http://en.wikipedia.org/wiki/Super_Aguri_F1">http://en.wikipedia.org/wiki/Super_Aguri_F1</a>
9	red_bull	Red Bull	Austrian	<a href="http://en.wikipedia.org/wiki/Red_Bull_Racing">http://en.wikipedia.org/wiki/Red_Bull_Racing</a>
10	force_india	Force India	Indian	<a href="http://en.wikipedia.org/wiki/Racing_Point_Forc...">http://en.wikipedia.org/wiki/Racing_Point_Forc...</a>
11	honda	Honda	Japanese	<a href="http://en.wikipedia.org/wiki/Honda_Racing_F1">http://en.wikipedia.org/wiki/Honda_Racing_F1</a>
12	spyker	Spyker	Dutch	<a href="http://en.wikipedia.org/wiki/Spyker_F1">http://en.wikipedia.org/wiki/Spyker_F1</a>
13	mf1	MF1	Russian	<a href="http://en.wikipedia.org/wiki/Midland_F1_Racing">http://en.wikipedia.org/wiki/Midland_F1_Racing</a>
14	spyker_mf1	Spyker MF1	Dutch	<a href="http://en.wikipedia.org/wiki/Midland_F1_Racing">http://en.wikipedia.org/wiki/Midland_F1_Racing</a>
15	sauber	Sauber	Swiss	<a href="http://en.wikipedia.org/wiki/Sauber">http://en.wikipedia.org/wiki/Sauber</a>
16	bar	BAR	British	<a href="http://en.wikipedia.org/wiki/British_American_R...">http://en.wikipedia.org/wiki/British_American_R...</a>
17	jordan	Jordan	Irish	<a href="http://en.wikipedia.org/wiki/Jordan_Grand_Pri...">http://en.wikipedia.org/wiki/Jordan_Grand_Pri...</a>

The 'Output' pane shows the message: '211 row(s) returned'.

## Carga manual de la tabla driver

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'f1' database with tables like 'circuits', 'constructor\_standings', 'constructors', 'driver', 'lap\_times', 'qualifying', 'races', 'results', 'sprint\_results', 'views', 'stored\_procedures', 'functions', 'gamers\_model', 'sakila', 'sys', and 'world'. The 'Query' pane shows a SQL query:

```
insert into driver values (1,"hamilton",44,"HAM","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,"rosberg",6,"ROS","Nico","Rosberg",27/06/1985,"German",http://en.wikipedia.org/wiki/Nico\_Rosberg),
(4,"alonso",14,"ALO","Fernando","Alonso",29/07/1981,"Spanish",http://en.wikipedia.org/wiki/Fernando\_Alonso),
(5,"kovalainen",null,"KOV","Heikki","Kovalainen",19/10/1981,"Finnish",http://en.wikipedia.org/wiki/Heikki\_Kovalainen),
(6,"nakajima",null,"NAK","Kazuki","Nakajima",11/01/1985,"Japanese",http://en.wikipedia.org/wiki/Kazuki\_Nakajima),
(7,"bourdais",null,"BOU","Sébastien","Bourdais",28/02/1979,"French",http://en.wikipedia.org/wiki/Sébastien\_Bourdais),
(8,"raikkonen",7,"RAI","Kimi","Raikkonen",17/10/1979,"Finnish",http://en.wikipedia.org/wiki/Kimi\_Räikkönen),
(9,"kubica",88,"KUB","Robert","Kubica",07/12/1984,"Polish",http://en.wikipedia.org/wiki/Robert\_Kubica),
(10,"glock",null,"GLO","Timo","Glock",18/03/1982,"German",http://en.wikipedia.org/wiki/Timo\_Glock),
(11,"sato",null,"SAT","Takuma","Sato",28/01/1977,"Japanese",http://en.wikipedia.org/wiki/Takuma\_Sato),
(12,"piquet_jr",null,"PIQ","Nelson","Piquet Jr.",25/07/1985,"Brazilian",http://en.wikipedia.org/wiki/Nelson\_Piquet\_Jr.),
(13,"massa",19,"MAS","Felipe","Massa",25/04/1981,"Brazilian",http://en.wikipedia.org/wiki/Felipe\_Massa),
(14,"coulthard",null,"COU","David","Coulthard",27/03/1971,"British",http://en.wikipedia.org/wiki/David\_Coulthard),
(15,"trulli",null,"TRU","Jarno","Trulli",13/07/1974,"Italian",http://en.wikipedia.org/wiki/Jarno\_Trulli),
(16,"sutil",99,"SUT","Adrian","Sutil",11/01/1983,"German",http://en.wikipedia.org/wiki/Adrian\_Sutil),
(17,"webber",null,"WEB","Mark","Webber",27/08/1976,"Australian",http://en.wikipedia.org/wiki/Mark\_Webber\_\(racing\_driver\)),
(18,"button",22,"BUT","Jenson","Button",19/01/1980,"British",http://en.wikipedia.org/wiki/Jenson\_Button),
(19,"davidson",null,"DAV","Anthony","Davidson",18/04/1979,"British",http://en.wikipedia.org/wiki/Anthony\_Davidson),
(20,"vettel",5,"VET","Sebastian","Vettel",03/07/1987,"German",http://en.wikipedia.org/wiki/Sebastian\_Vettel),
(21,"fisichella",null,"FIS","Giancarlo","Fisichella",14/01/1973,"Italian",http://en.wikipedia.org/wiki/Giancarlo\_Fisichella),
(22,"baricello",null,"BAR","Rubens","Baricello",23/05/1972,"Brazilian",http://en.wikipedia.org/wiki/Rubens\_Barrichello),
(23,"ralf_schumacher",null,"SCH","Ralf","Schumacher",30/06/1975,"German",http://en.wikipedia.org/wiki/Ralf\_Schumacher),
(24,"liuzzi",null,"LIU","Vitantonio","Liuzzi",06/08/1980,"Italian",http://en.wikipedia.org/wiki/Vitantonio\_Liuzzi),
(25,"wurz",null,"WUR","Alexander","Wurz",15/02/1974,"Austrian",http://en.wikipedia.org/wiki/Alexander\_Wurz),
(26,"speed",null,"SPE","Scott","Speed",24/01/1983,"American",http://en.wikipedia.org/wiki/Scott\_Speed),
```

The 'Output' pane shows the message: '1 row(s) affected'.

# PROYECTO

## Chequeo de que se haya realizado la carga de la tabla driver

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: Filter objects

SCHMAS

Tables

- circuits
- constructor\_standing
- constructors
- driver
- lap\_times
- qualifying
- races
- results
- sprint\_results
- Views
- Stored Procedures
- Functions
- gammers\_model
- sakila
- sys

Administration Schemas

Information: No object selected

Tablas SQL: Insertar tabla demas tablas auto...

Limit to 1000 rows

```

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

driverId	driverRef	number	code	forename	surname	dob	nationality	url
1	hamilton	44	HAM	Lewis	Hamilton	0000-00-00	British	<a href="http://en.wikipedia.org/wiki/Lewis_Hamilton">http://en.wikipedia.org/wiki/Lewis_Hamilton</a>
2	heidfeld	NAUL	HEI	Nick	Heidfeld	0000-00-00	German	<a href="http://en.wikipedia.org/wiki/Nick_Heidfeld">http://en.wikipedia.org/wiki/Nick_Heidfeld</a>
3	rosberg	6	ROS	Nico	Rosberg	0000-00-00	German	<a href="http://en.wikipedia.org/wiki/Nico_Rosberg">http://en.wikipedia.org/wiki/Nico_Rosberg</a>
4	alonso	14	ALO	Fernando	Alonso	0000-00-00	Spanish	<a href="http://en.wikipedia.org/wiki/Fernando_Alonso">http://en.wikipedia.org/wiki/Fernando_Alonso</a>
5	kovalainen	KOV	HEI	Heikki	Kovalainen	0000-00-00	Finnish	<a href="http://en.wikipedia.org/wiki/Heikki_Kovalainen">http://en.wikipedia.org/wiki/Heikki_Kovalainen</a>
6	nakajima	NAK	Kazuki	Nakajima	0000-00-00	Japanese	<a href="http://en.wikipedia.org/wiki/Kazuki_Nakajima">http://en.wikipedia.org/wiki/Kazuki_Nakajima</a>	
7	bourdais	BOU	Sébastien	Bourdais	0000-00-00	French	<a href="http://en.wikipedia.org/wiki/S%C3%A9bastien...">http://en.wikipedia.org/wiki/S%C3%A9bastien...</a>	
8	raikkonen	7	RAI	Kimi	Räikkönen	0000-00-00	Finnish	<a href="http://en.wikipedia.org/wiki/Kimi_R%C3%A4ikk...">http://en.wikipedia.org/wiki/Kimi_R%C3%A4ikk...</a>
9	kubica	88	KUB	Robert	Kubica	0000-00-00	Polish	<a href="http://en.wikipedia.org/wiki/Robert_Kubica">http://en.wikipedia.org/wiki/Robert_Kubica</a>
10	glock	GLO	Timo	Glock	0000-00-00	German	<a href="http://en.wikipedia.org/wiki/Timo_Glock">http://en.wikipedia.org/wiki/Timo_Glock</a>	
11	sato	SAT	Takuma	Sato	0000-00-00	Japanese	<a href="http://en.wikipedia.org/wiki/Takuma_Sato">http://en.wikipedia.org/wiki/Takuma_Sato</a>	
12	piquet_jr	PIQ	Nelson	Piquet Jr.	0000-00-00	Brazilian	<a href="http://en.wikipedia.org/wiki/Nelson_Piquet,_Jr.">http://en.wikipedia.org/wiki/Nelson_Piquet,_Jr.</a>	
13	massa	19	MAS	Felipe	Massa	0000-00-00	Brazilian	<a href="http://en.wikipedia.org/wiki/Felipe_Massa">http://en.wikipedia.org/wiki/Felipe_Massa</a>
14	coulthard	COU	David	Coulthard	0000-00-00	British	<a href="http://en.wikipedia.org/wiki/David_Coulthard">http://en.wikipedia.org/wiki/David_Coulthard</a>	
15	trulli	TRU	Jarno	Trulli	0000-00-00	Italian	<a href="http://en.wikipedia.org/wiki/Jarno_Trulli">http://en.wikipedia.org/wiki/Jarno_Trulli</a>	

driver 3

Output: Action Output

#	Time	Action	Message
2	22:05:25	SELECT * FROM driver LIMIT 0, 1000	854 row(s) returned

## Chequeo de que se haya realizado la carga de la tabla lap\_times

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: Filter objects

SCHMAS

Tables

- circuits
- constructor\_standing
- constructors
- driver
- lap\_times
- qualifying
- races
- results
- sprint\_results
- Views
- Stored Procedures
- Functions
- gammers\_model
- sakila
- sys

Administration Schemas

Information: Column: milliseconds  
Definition: milliseconds int

Tablas SQL: Insertar tabla demas tablas auto...

Limit to 1000 rows

```

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

Id	raceId	driverId	lap	position	time	milliseconds
1	841	20	1	1	01:38:00	98109
2	841	20	2	1	01:33:00	93006
3	841	20	3	1	01:32:01	92713
4	841	20	4	1	01:32:01	92803
5	841	20	5	1	01:32:00	92342
6	841	20	6	1	01:32:01	92605
7	841	20	7	1	01:32:01	92502
8	841	20	8	1	01:32:01	92537
9	841	20	9	1	01:33:00	93240
10	841	20	10	1	01:32:01	92572
11	841	20	11	1	01:32:01	92669
12	841	20	12	1	01:32:01	92902
13	841	20	13	1	01:33:01	93698
14	841	20	14	3	01:52:00	112075
15	841	20	15	4	01:38:00	98385
16	841	20	16	2	01:31:01	91548
17	841	20	17	1	01:30:01	90800
18	841	20	18	1	01:31:01	91810

lap\_times 7

Output: Action Output

#	Time	Action	Message	Duration / Fetch
23	22:43:11	SELECT * FROM lap_times -- falta arreglar LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.000 sec

# PROYECTO

## Chequeo de que se haya realizado la carga de la tabla qualifying

The screenshot shows the MySQL Workbench interface with the 'qualifying' table selected in the 'Tablas SQL' pane. The 'Result Grid' displays the following data:

qualifyid	racelid	driverid	constructorid	number	position	q1	q2	q3
1	18	1	1	22	1	01:26:01	01:25:00	01:26:01
2	18	9	2	4	2	01:26:00	01:25:00	01:26:01
3	18	5	1	23	3	01:25:01	01:25:00	01:27:00
4	18	13	6	2	4	01:25:01	01:25:01	01:27:00
5	18	2	2	3	5	01:25:01	01:25:01	01:27:00
6	18	15	7	11	6	01:26:00	01:26:00	01:28:01
7	18	3	3	7	7	01:26:00	01:26:00	01:28:01
8	18	14	9	9	8	01:26:00	01:26:00	01:29:00
9	18	10	7	12	9	01:26:01	01:26:00	01:29:01
10	18	20	5	15	10	01:26:01	01:25:01	01:29:01
11	18	22	11	17	11	01:26:00	01:26:00	01:29:01
12	18	4	4	5	12	01:26:01	01:26:00	01:29:01
13	18	18	11	16	13	01:26:01	01:26:00	01:29:01
14	18	6	3	8	14	01:26:01	01:26:00	01:29:01
15	18	17	9	10	15	01:26:01	01:26:00	01:29:01
16	18	8	6	1	16	01:26:00	01:26:00	01:29:01
17	18	21	10	21	17	01:27:00	01:26:00	01:29:01

The 'Output' pane shows the execution of the query: '27 17:52:21 SELECT \* FROM qualifying LIMIT 0, 1000' with a message '1000 row(s) returned' and a duration of '0.000 sec / 0.000 sec'.

## Chequeo de que se haya realizado la carga de la tabla races

The screenshot shows the MySQL Workbench interface with the 'races' table selected in the 'Tablas SQL' pane. The 'Result Grid' displays the following data:

racelid	year	round	circuitid	name	date	time	url	fp1_date	fp1_time	fp2_date	fp2_time	fp3_date	fp3_time	quali_date	quali_time	sprint
1	2009	1	1	Australian Grand Prix	2009-03-29	06:00:00	http://en.wikipedia.org/wiki/2009_Australian_Gr...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
2	2009	2	2	Malaysian Grand Prix	2009-04-05	09:00:00	http://en.wikipedia.org/wiki/2009_Malaysian_Gr...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
3	2009	3	17	Chinese Grand Prix	2009-04-19	07:00:00	http://en.wikipedia.org/wiki/2009_Chinese_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
4	2009	4	3	Bahrain Grand Prix	2009-04-26	12:00:00	http://en.wikipedia.org/wiki/2009_Bahrain_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
5	2009	5	4	Spanish Grand Prix	2009-05-10	12:00:00	http://en.wikipedia.org/wiki/2009_Spanish_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
6	2009	6	6	Monaco Grand Prix	2009-05-24	12:00:00	http://en.wikipedia.org/wiki/2009_Monaco_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
7	2009	7	5	Turkish Grand Prix	2009-06-07	12:00:00	http://en.wikipedia.org/wiki/2009_Turkish_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
8	2009	8	9	British Grand Prix	2009-06-21	12:00:00	http://en.wikipedia.org/wiki/2009_British_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
9	2009	9	20	German Grand Prix	2009-07-12	12:00:00	http://en.wikipedia.org/wiki/2009_German_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
10	2009	10	11	Hungarian Grand Prix	2009-07-26	12:00:00	http://en.wikipedia.org/wiki/2009_Hungarian_Gr...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
11	2009	11	12	European Grand Prix	2009-08-23	12:00:00	http://en.wikipedia.org/wiki/2009_European_Gr...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
12	2009	12	13	Belgian Grand Prix	2009-08-30	12:00:00	http://en.wikipedia.org/wiki/2009_Belgian_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
13	2009	13	14	Italian Grand Prix	2009-09-13	12:00:00	http://en.wikipedia.org/wiki/2009_Italian_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
14	2009	14	15	Singapore Grand Prix	2009-09-27	12:00:00	http://en.wikipedia.org/wiki/2009_Singapore_G...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
15	2009	15	22	Japanese Grand Prix	2009-10-04	05:00:00	http://en.wikipedia.org/wiki/2009_Japanese_Gr...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00
16	2009	16	18	Brazilian Grand Prix	2009-10-18	16:00:00	http://en.wikipedia.org/wiki/2009_Brazilian_Gra...	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00	01:25:00	01:26:00

The 'Output' pane shows the execution of the query: '25 17:51:05 SELECT \* FROM races LIMIT 0, 1000' with a message '1000 row(s) returned' and a duration of '0.000 sec / 0.015 sec'.



# PROYECTO

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

MySQL Workbench interface showing the 'results' table loaded with 1000 rows. The SQL editor contains the following queries:

```

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

```

The Result Grid displays the following columns: resultId, raceId, driverId, constructorId, number, grid, position, positionText, positionOrder, points, laps, time, milliseconds, fastestLap, rank, fastestLapTime, fastestLapSpeed, statusId. The first few rows are visible, showing data for raceId 18.

The Output pane shows the execution message: "10 19:20:48 SELECT \* FROM results LIMIT 0, 1000" with a message "1000 row(s) returned" and a duration of "0.000 sec / 0.000 sec".

## Chequeado de que se haya realizado la carga de la tabla sprint\_results

MySQL Workbench interface showing the 'sprint\_results' table loaded with 1000 rows. The SQL editor contains the following queries:

```

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

```

The Result Grid displays the following columns: resultId, raceId, driverId, constructorId, number, grid, position, positionText, positionOrder, points, laps, time, milliseconds, fastestLap, fastestLapTime, statusId. The first few rows are visible, showing data for raceId 1061.

The Output pane shows the execution message: "47 18:03:58 SELECT \* FROM sprint\_results LIMIT 0, 1000" with a message "100 row(s) returned" and a duration of "0.000 sec / 0.000 sec".