

Banco de Dados

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202203404032

```
1  /* banco de dados */
2  create database db_formula1;
3  use db_formula1;
4  create table paises(
5      |   codigo int not null,
6      |   nome varchar (30),
7      |   primary key (codigo)
8  );
9  create table equipes(
10     |   sigla varchar (3) not null,
11     |   nome varchar (30) not null,
12     |   cod_pais int not null,
13     |   primary key (sigla),
14     |   foreign key (cod_pais) references paises(codigo)
15 );
16 create table pilotos(
17     |   numero int not null,
18     |   nome varchar (30) not null,
19     |   sigla_equipe varchar (3) not null,
20     |   cod_pais int not null,
21     |   primary key (numero),
22     |   foreign key (cod_pais) references paises(codigo),
23     |   foreign key (sigla_equipe) references equipes(sigla)
24 );
25 create table corridas(
26     |   sigla_gp varchar(3) not null,
27     |   nome_gp varchar (30) not null,
28     |   cod_pais int,
29     |   qtd_voltas int,
30     |   primary key (sigla_gp),
31     |   foreign key (cod_pais) references paises(codigo)
32 );
33 create table participantes(
34     |   sigla_gp varchar (3),
35     |   num_piloto int,
36     |   posicao_largada int,
37     |   primary key (sigla_gp, num_piloto),
38     |   foreign key (sigla_gp) references corridas(sigla_gp),
39     |   foreign key (num_piloto) references pilotos(numero)
40 );
```

1.

```
59 insert into pilotos values(1, "Ayrton Senna", "McL", 55);
60 insert into pilotos values(2, "Felipe Massa", "Wll", 55);
61 insert into pilotos values(3, "Nelson Piquet", "Btt", 55);
62 insert into pilotos values(4, "Rubens Barrichello", "Wll", 55);
63 insert into pilotos values(5, "Felipe Drugovich", "MP", 55);
64 insert into pilotos values(6, "Pierre Gasly", "Alt", 39);
65 insert into pilotos values(7, "Esteban Ocon", "Al", 39);
66 insert into pilotos values(8, "Jules Bianchi", "Ma", 39);
67 insert into pilotos values(9, "Antonio Giovinazzi", "Sa", 33);
68 insert into pilotos values(10, "Nicola Larini", "DR", 33);
69 insert into pilotos values(11, "Yuki Tsunada", "Alt", 81);
70 insert into pilotos values(12, "Sergio Pérez", "RBr", 52);
71
```

2.

```
41 insert into paises values (55, "Brasil");
42 insert into paises values (39, "Italia");
43 insert into paises values (33, "França");
44 insert into paises values (81, "Japão");
45 insert into paises values (52, "México");
46
47 insert into equipes values ("McL", "McLaren", 55);
48 insert into equipes values ("Wll", "Williams", 55);
49 insert into equipes values ("Btt", "Benetton", 55);
50 insert into equipes values ("MP", "MP Motorsport", 55);
51 insert into equipes values ("Alt", "AlphaTauri", 39);
52 insert into equipes values ("Al", "Alpine", 39);
53 insert into equipes values ("Ma", "Marussia", 39);
54 insert into equipes values ("Sa", "Sauber", 33);
55 insert into equipes values ("DR", "Dragon Racing", 33);
56 insert into equipes values ("RBr", "Red Bull Racing", 52);
57
58 insert into pilotos values(1, "Ayrton Senna", "McL", 55);
59 insert into pilotos values(2, "Felipe Massa", "Wll", 55);
60 insert into pilotos values(3, "Nelson Piquet", "Btt", 55);
61 insert into pilotos values(4, "Rubens Barrichello", "Wll", 55);
62 insert into pilotos values(5, "Felipe Drugovich", "MP", 55);
63 insert into pilotos values(6, "Pierre Gasly", "Alt", 39);
64 insert into pilotos values(7, "Esteban Ocon", "Al", 39);
65 insert into pilotos values(8, "Jules Bianchi", "Ma", 39);
66 insert into pilotos values(9, "Antonio Giovinazzi", "Sa", 33);
67 insert into pilotos values(10, "Nicola Larini", "DR", 33);
68 insert into pilotos values(11, "Yuki Tsunada", "Alt", 81);
69 insert into pilotos values(12, "Sergio Pérez", "RBr", 52);
70
71
72 insert into corridas values("gpB", "Interlagos", 55, 15);
73 insert into corridas values("gpI", "Monza", 39, 11);
74 insert into corridas values("gpF", "Paul Ricard", 33, 9);
75 insert into corridas values("gpJ", "Suzuka", 81, 53);
76 insert into corridas values("gpM", "Hermanos Rodríguez", 52, 71);
77
78 insert participantes values ("gpB", 1, null);
79 insert participantes values ("gpB", 2, null);
80 insert participantes values ("gpB", 3, null);
81 insert participantes values ("gpB", 4, null);
82 insert participantes values ("gpB", 5, null);
83 insert participantes values ("gpI", 6, null);
84 insert participantes values ("gpI", 7, null);
85 insert participantes values ("gpI", 8, null);
86 insert participantes values ("gpF", 9, null);
87 insert participantes values ("gpF", 10, null);
88 insert participantes values ("gpJ", 11, null);
89 insert participantes values ("gpM", 12, null);
90
```

3.

```
91 /* querys */
92 select nome
93 from paises
94 where nome like "b%" "%l";
95
```

4.

```
95  select pilotos.nome, paises.nome
96  from pilotos join paises
97  on  pilotos.cod_pais = paises.codigo
98  where pilotos.cod_pais=55 or pilotos.cod_pais=39 or pilotos.cod_pais=33
99  order by paises.nome, pilotos.nome asc;
```

5.

```
102  select nome
103  from pilotos
104  order by pilotos.nome asc;
```

6.

```
106  select nome_gp as Gran_pix, qtd_voltas as voltas
107  from corridas
108  order by Gran_pix asc;
109
```

7.

```
110  select pilotos.nome, paises.nome
111  from pilotos join paises
112  on  pilotos.cod_pais = paises.codigo
113  order by paises.nome, pilotos.nome asc;
114
```

8.

```
115  alter table pilotos add salario double;
```

9.

```
117  update pilotos
118  set salario=1650000
119  where pilotos.numero=1;
120  update pilotos
121  set salario=5300000
122  where pilotos.numero=2;
123  update pilotos
124  set salario=5500000
125  where pilotos.numero=3;
126  update pilotos
127  set salario=null
128  where pilotos.numero=4;
```

```
129 update pilotos
130 set salario=36300000
131 where pilotos.numero=5;
132 update pilotos
133 set salario=76000000
134 where pilotos.numero=6;
135 update pilotos
136 set salario=2048000
137 where pilotos.numero=7;
138 update pilotos
139 set salario=668000
140 where pilotos.numero=8;
141 update pilotos
142 set salario=757220000
143 where pilotos.numero=9;
144 update pilotos
145 set salario=null
146 where pilotos.numero=10;
147 update pilotos
148 set salario=750000
149 where pilotos.numero=11;
150 update pilotos
151 set salario=8000000
152 where pilotos.numero=12;
```

10.

```
154 select pilotos.nome as nome, pilotos.salario as salario
155 from pilotos
156 where salario between 70000 and 100000;
157
```

11.

```
158 select avg(salario), paises.codigo
159 from pilotos join paises
160 on paises.codigo = pilotos.cod_pais
161 group by pilotos.cod_pais;
```

12.

```
163 select nome, salario
164 from pilotos
165 order by salario asc;
```

✓	1	15:34:32	DROP DATABASE 'db_formula1'	5 row(s) affected
✓	2	15:34:35	create database db_formula1	1 row(s) affected
✓	3	15:34:35	use db_formula1	0 row(s) affected
✓	4	15:34:35	create table paises( codigo int not null, nome varchar (30), primary key (codigo) )	0 row(s) affected
✓	5	15:34:35	create table equipes( sigla varchar (3) not null, nome varchar (30) not null, cod_pais int not null, primary ...	0 row(s) affected
✓	6	15:34:35	create table pilotos( numero int not null, nome varchar (30) not null, sigla_equipe varchar (3) not null, cod_...	0 row(s) affected
✓	7	15:34:35	create table comidas( sigla_gp varchar(3) not null, nome_gp varchar (30) not null, cod_pais int, qtd_volt...	0 row(s) affected
✓	8	15:34:35	create table participantes( sigla_gp varchar (3), num_piloto int, posicao_largada int, primary key (sigla_g...	0 row(s) affected
✓	9	15:34:35	insert into paises values (55, "Brasil")	1 row(s) affected
✓	10	15:34:35	insert into paises values (39, "Italia")	1 row(s) affected
✓	11	15:34:35	insert into paises values (33, "França")	1 row(s) affected
✓	12	15:34:35	insert into paises values (81, "Japão")	1 row(s) affected
✓	13	15:34:35	insert into paises values (52, "México")	1 row(s) affected
✓	14	15:34:35	insert into equipes values ("McL", "McLaren", 55)	1 row(s) affected
✓	15	15:34:35	insert into equipes values ("Wll", "Williams", 55)	1 row(s) affected
✓	16	15:34:35	insert into equipes values ("Btt", "Benetton", 55)	1 row(s) affected
✓	17	15:34:35	insert into equipes values ("MP", "MP Motorsport", 55)	1 row(s) affected
✓	18	15:34:35	insert into equipes values ("Alf", "Alpha Tauri", 39)	1 row(s) affected
✓	19	15:34:36	insert into equipes values ("Al", "Alpine", 39)	1 row(s) affected
✓	20	15:34:36	insert into equipes values("Ma", "Marussia", 39)	1 row(s) affected
✓	21	15:34:36	insert into equipes values ("Sa", "Sauber", 33)	1 row(s) affected
✓	22	15:34:36	insert into equipes values ("DR", "Dragon Racing", 33)	1 row(s) affected
✓	23	15:34:36	insert into equipes values ("RBr", "Red Bull Racing", 52)	1 row(s) affected
✓	24	15:34:36	insert into pilotos values(1, "Ayrton Senna", "McL", 55)	1 row(s) affected
✓	25	15:34:36	insert into pilotos values(2, "Felipe Massa", "Wll", 55)	1 row(s) affected
✓	26	15:34:36	insert into pilotos values(3, "Nelson Piquet", "Btt", 55)	1 row(s) affected
✓	27	15:34:36	insert into pilotos values(4, "Rubens Barrichello", "Wll", 55)	1 row(s) affected
✓	28	15:34:36	insert into pilotos values(5, "Felipe Drugovich", "MP", 55)	1 row(s) affected
✓	29	15:34:36	insert into pilotos values(6, "Pierre Gasly", "Alf", 39)	1 row(s) affected
✓	30	15:34:36	insert into pilotos values(7, "Esteban Ocon", "Al", 39)	1 row(s) affected
✓	31	15:34:36	insert into pilotos values(8, "Jules Bianchi", "Ma", 39)	1 row(s) affected
✓	32	15:34:36	insert into pilotos values(9, "Antonio Giovinazzi", "Sa", 33)	1 row(s) affected
✓	33	15:34:36	insert into pilotos values(10, "Nicola Larini", "DR", 33)	1 row(s) affected
✓	34	15:34:36	insert into pilotos values(11, "Yuki Tsunada", "Alf", 81)	1 row(s) affected
✓	35	15:34:36	insert into pilotos values(12, "Sergio Pérez", "RBr", 52)	1 row(s) affected
✓	36	15:34:36	insert into comidas values("gpB", "Interlagos", 55, 15)	1 row(s) affected
✓	37	15:34:36	insert into comidas values("gpI", "Monza", 39, 11)	1 row(s) affected
✓	38	15:34:36	insert into comidas values("gpF", "Paul Ricard", 33, 9)	1 row(s) affected
✓	39	15:34:36	insert into comidas values("gpJ", "Suzuka", 81, 53)	1 row(s) affected
✓	40	15:34:36	insert into comidas values("gpM", "Hermanos Rodríguez", 52, 71)	1 row(s) affected
✓	41	15:34:36	insert participantes values ("gpB", 1, null)	1 row(s) affected
✓	42	15:34:36	insert participantes values ("gpB", 2, null)	1 row(s) affected
✓	43	15:34:37	insert participantes values ("gpB", 3, null)	1 row(s) affected
✓	44	15:34:37	insert participantes values ("gpB", 4, null)	1 row(s) affected
✓	45	15:34:37	insert participantes values ("gpB", 5, null)	1 row(s) affected
✓	46	15:34:37	insert participantes values ("gpI", 6, null)	1 row(s) affected
✓	47	15:34:37	insert participantes values ("gpI", 7, null)	1 row(s) affected
✓	48	15:34:37	insert participantes values ("gpI", 8, null)	1 row(s) affected
✓	49	15:34:37	insert participantes values ("gpF", 9, null)	1 row(s) affected
✓	50	15:34:37	insert participantes values ("gpF", 10, null)	1 row(s) affected
✓	51	15:34:37	insert participantes values ("gpJ", 11, null)	1 row(s) affected
✓	52	15:34:37	insert participantes values ("gpM", 12, null)	1 row(s) affected
✓	53	15:34:37	select nome from paises where nome like "b%" ""% LIMIT 0, 1000	12 row(s) returned
✓	54	15:34:37	select pilotos.nome, paises.nome from pilotos join paises on pilotos.cod_pais = paises.codigo where pilotos.co...	12 row(s) returned
✓	55	15:34:37	select nome from pilotos order by pilotos.nome asc LIMIT 0, 1000	12 row(s) returned
✓	56	15:34:37	select nome_gp as Gran_pix, qtd_voltas as voltas from comidas order by Gran_pix asc LIMIT 0, 1000	5 row(s) returned
✓	57	15:34:37	select pilotos.nome, paises.nome from pilotos join paises on pilotos.cod_pais = paises.codigo order by paises.n...	12 row(s) returned
✓	58	15:34:37	alter table pilotos add salario double	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
✓	59	15:34:38	update pilotos set salario=1650000 where pilotos.numero=1	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	60	15:34:38	update pilotos set salario=5300000 where pilotos.numero=2	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	61	15:34:38	update pilotos set salario=5500000 where pilotos.numero=3	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	62	15:34:38	update pilotos set salario=null where pilotos.numero=4	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0
✓	63	15:34:38	update pilotos set salario=36300000 where pilotos.numero=5	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	64	15:34:38	update pilotos set salario=76000000 where pilotos.numero=6	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	65	15:34:38	update pilotos set salario=2048000 where pilotos.numero=7	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	66	15:34:38	update pilotos set salario=668000 where pilotos.numero=8	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	67	15:34:38	update pilotos set salario=757220000 where pilotos.numero=9	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	68	15:34:38	update pilotos set salario=null where pilotos.numero=10	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0
✓	69	15:34:38	update pilotos set salario=750000 where pilotos.numero=11	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	70	15:34:38	update pilotos set salario=8000000 where pilotos.numero=12	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	71	15:34:38	select pilotos.nome as nome, pilotos.salario as salario from pilotos where salario between 70000 and 100000 LI...	0 row(s) returned
✓	72	15:34:38	select avg(salario), paises.codigo from pilotos join paises on paises.codigo = pilotos.cod_pais group by pilotos....	5 row(s) returned
✓	73	15:34:38	select nome, salario from pilotos order by salario asc LIMIT 0, 1000	12 row(s) returned

	Tables_in_db_formula1
►	corridas
	equipes
	países
	participantes
	pilotos

	sigla_gp	num_piloto	posicao_largada
►	gpB	1	NULL
	gpB	2	NULL
	gpB	3	NULL
	gpB	4	NULL
	gpB	5	NULL
	gpF	9	NULL
	gpF	10	NULL
	gpI	6	NULL
	gpI	7	NULL
	gpI	8	NULL
	gpJ	11	NULL
	gpM	12	NULL

	sigla	nome	cod_pais
►	Al	Alpine	39
	Alt	AlphaTauri	39
	Btt	Benetton	55
	DR	Dragon Racing	33
	Ma	Marussia	39
	McL	McLaren	55
	MP	MP Motorsport	55
	RBr	Red Bull Racing	52
	Sa	Sauber	33
	Wll	Williams	55

	codigo	nome
►	33	França
	39	Italia
	52	México
	55	Brasil
	81	Japão

	sigla_gp	nome_gp	cod_pais	qtd_voltas
►	gpB	Interlagos	55	15
	gpF	Paul Ricard	33	9
	gpI	Monza	39	11
	gpJ	Suzuka	81	53
	gpM	Hermanos Rodríguez	52	71

	numero	nome	sigla_equipe	cod_pais	salario
►	1	Ayrton Senna	McL	55	1650000
	2	Felipe Massa	Wll	55	5300000
	3	Nelson Piquet	Btt	55	5500000
	4	Rubens Barrichello	Wll	55	NULL
	5	Felipe Drugovich	MP	55	36300000
	6	Pierre Gasly	Alt	39	76000000
	7	Esteban Ocon	Al	39	2048000
	8	Jules Bianchi	Ma	39	668000
	9	Antonio Giovinazzi	Sa	33	757220000
	10	Nicola Larini	DR	33	NULL
	11	Yuki Tsunada	Alt	81	750000
	12	Sergio Pérez	RBr	52	8000000

3.

	nome
►	Brasil

4.

	nome	nome
►	Ayrton Senna	Brasil
	Felipe Drugovich	Brasil
	Felipe Massa	Brasil
	Nelson Piquet	Brasil
	Rubens Barrichello	Brasil
	Antonio Giovinazzi	França
	Nicola Larini	França
	Esteban Ocon	Italia
	Jules Bianchi	Italia
	Pierre Gasly	Italia

5.

	nome
►	Antonio Giovinazzi
	Ayrton Senna
	Esteban Ocon
	Felipe Drugovich
	Felipe Massa
	Jules Bianchi
	Nelson Piquet
	Nicola Larini
	Pierre Gasly
	Rubens Barrichello
	Sergio Pérez
	Yuki Tsunada

6.

	Gran_pix	voltas
►	Hermanos Rodríguez	71
	Interlagos	15
	Monza	11
	Paul Ricard	9
	Suzuka	53

7.

	nome	nome
►	Ayrton Senna	Brasil
	Felipe Drugovich	Brasil
	Felipe Massa	Brasil
	Nelson Piquet	Brasil
	Rubens Barrichello	Brasil
	Antonio Giovinazzi	França
	Nicola Larini	França
	Esteban Ocon	Italia
	Jules Bianchi	Italia
	Pierre Gasly	Italia
	Yuki Tsunada	Japão
	Sergio Pérez	México



8.

numero	nome	sigla_equipe	cod_pais	salario
1	Ayrton Senna	McL	55	1650000
2	Felipe Massa	Will	55	5300000
3	Nelson Piquet	Btt	55	5500000
4	Rubens Barrichello	Will	55	NULL
5	Felipe Drugovich	MP	55	36300000
6	Pierre Gasly	Alt	39	76000000
7	Esteban Ocon	Al	39	2048000
8	Jules Bianchi	Ma	39	668000
9	Antonio Giovinazzi	Sa	33	757220000
10	Nicola Larini	DR	33	NULL
11	Yuki Tsunada	Alt	81	750000
12	Sergio Pérez	RBr	52	8000000

9.

numero	nome	sigla_equipe	cod_pais	salario
1	Ayrton Senna	McL	55	1650000
2	Felipe Massa	Will	55	5300000
3	Nelson Piquet	Btt	55	5500000
4	Rubens Barrichello	Will	55	NULL
5	Felipe Drugovich	MP	55	36300000
6	Pierre Gasly	Alt	39	76000000
7	Esteban Ocon	Al	39	2048000
8	Jules Bianchi	Ma	39	668000
9	Antonio Giovinazzi	Sa	33	757220000
10	Nicola Larini	DR	33	NULL
11	Yuki Tsunada	Alt	81	750000
12	Sergio Pérez	RBr	52	8000000

10. nota: como nenhum dos pilotos da tabela “pilotos” recebia um salário que ficasse no intervalo entre 70 mil e 100 mil, alterei o script para mostrar os pilotos que recebiam um salário no intervalo entre 70 mil e 1 milhão.

nome	salario
Jules Bianchi	668000
Yuki Tsunada	750000

11.

avg(salario)	codigo
757220000	33
26238666.666666668	39
8000000	52
12187500	55
750000	81

12.

nome	salario
Nicola Larini	NULL
Rubens Barrichello	NULL
Jules Bianchi	668000
Yuki Tsunada	750000
Ayrton Senna	1650000
Esteban Ocon	2048000
Felipe Massa	5300000
Nelson Piquet	5500000
Sergio Pérez	8000000
Felipe Drugovich	36300000
Pierre Gasly	76000000