- Mostra veiculo(placa), sensor(latitude, longitude), ordenado(timestamp)

```
SELECT  f.sk_veiculo, v.placa
FROM fato f, dim_veiculo v
where f.sk_veiculo = v.sk_veiculo
order by f.sk_veiculo, f.sk_tempo;
```

	sk_veiculo integer	placa character varying (255)	data timestamp without time zone
1	1	0003c46b3b5c49c42f8ed3...	2017-09-01 20:36:51
2	2	0008ce9e78753bf7cc6446...	2017-09-01 22:35:43
3	3	000f7f8fb03601a65556ece...	2017-09-01 07:50:34
4	3	000f7f8fb03601a65556ece...	2017-09-01 07:53:26
5	3	000f7f8fb03601a65556ece...	2017-09-01 09:58:46
6	4	000fa7796f57e41998f9b4d...	2017-09-01 13:02:16
7	5	001e6155d53baff1a8fc3e3...	2017-09-01 11:24:13
8	6	0027fdf0b2163470fb18246...	2017-09-01 08:16:55
9	6	0027fdf0b2163470fb18246...	2017-09-01 08:19:34
10	6	0027fdf0b2163470fb18246...	2017-09-01 11:20:08
11	6	0027fdf0b2163470fb18246...	2017-09-01 17:58:53
12	7	0028315827c9a9b5f38b31...	2017-09-01 14:38:04
13	7	0028315827c9a9b5f38b31...	2017-09-01 14:40:38
14	7	0028315827c9a9b5f38b31...	2017-09-01 14:41:03
15	7	0028315827c9a9b5f38b31...	2017-09-01 17:48:02
16	7	0028315827c9a9b5f38b31...	2017-09-01 17:48:26
17	7	0028315827c9a9b5f38b31...	2017-09-01 17:49:19

- número de veículos registrados por sensor

```
select distinct s.id_sensor,
count(f.sk_sensor)Qtde_sensor
from fato f, dim_sensor s
where f.sk_sensor = s.sk_sensor
group by s.sk_sensor
order by Qtde_sensor DESC
```

	id_sensor integer	qtde_sensor bigint
1	17	2369
2	388	1912
3	437	1576
4	337	1550
5	631	1540
6	582	1484
7	682	1457
8	642	1428
9	368	1378
10	27	1358
11	266	1301
12	603	1298
13	10	1296
14	329	1287
15	671	1273
16	55	1257

- quantidade de registros por mês

```
select distinct t.mes, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.mes
order by Qtde_registros DESC
```

	mes double precision	qtde_registros bigint
1	9	52266

- quantidade de registros por dia

```
select distinct t.dia, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.dia
order by Qtde_registros DESC
```

	dia double precision	qtde_registros bigint
1	1	52266

- quantidade de registros por hora

  - ORDENADO POR HORA

```
select distinct t.hora, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.hora
order by t.hora DESC
```

	hora double precision	qtde_registros bigint
1	23	893
2	22	2015
3	21	2382
4	20	2449
5	19	2999
6	18	3565
7	17	3955
8	16	3563
9	15	3175
10	14	2488
11	13	2998
12	12	2934
13	11	3004
14	10	2544
15	9	2912
16	8	3338
17	7	3749
18	6	2001
19	5	324
20	4	92
21	3	79

- ORDENADO POR QUANTIDADE MAIOR DE REGISTROS

```
select distinct t.hora, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.hora
order by Qtde_registros DESC
```

	hora double precision	qtde_registros bigint
1	17	3955
2	7	3749
3	18	3565
4	16	3563
5	8	3338
6	15	3175
7	11	3004
8	19	2999
9	13	2998
10	12	2934
11	9	2912
12	10	2544
13	14	2488
14	20	2449
15	21	2382
16	22	2015
17	6	2001
18	23	893

- quantidade de registros por mês e dia

```
select distinct t.mes, t.dia, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.mes, t.dia
order by Qtde_registros DESC
```

	mes double precision	dia double precision	qtde_registros bigint
1	9	1	52266

- quantidade de registros por mês, dia e hora
    - Ordenado por quantidade

```
select distinct t.mes, t.dia, t.hora, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.mes, t.dia, t.hora
order by Qtde_registros DESC
```

	mes double precision	dia double precision	hora double precision	qtde_registros bigint
1	9	1	17	3955
2	9	1	7	3749
3	9	1	18	3565
4	9	1	16	3563
5	9	1	8	3338
6	9	1	15	3175
7	9	1	11	3004
8	9	1	19	2999
9	9	1	13	2998
10	9	1	12	2934
11	9	1	9	2912
12	9	1	10	2544
13	9	1	14	2488
14	9	1	20	2449
15	9	1	21	2382
16	9	1	22	2015
17	9	1	6	2001
18	9	1	23	893
19	9	1	0	368
20	9	1	5	324
21	9	1	1	318

- Ordenado por data e horário

```
select distinct t.mes, t.dia, t.hora, count(f.id_fato)Qtde_registros
from fato f, dim_tempo t
where f.sk_tempo = t.sk_tempo
group by t.mes, t.dia, t.hora
order by Qtde_registros DESC
```

	mes double precision	dia double precision	hora double precision	qtde_registros bigint
1	9	1	23	893
2	9	1	22	2015
3	9	1	21	2382
4	9	1	20	2449
5	9	1	19	2999
6	9	1	18	3565
7	9	1	17	3955
8	9	1	16	3563
9	9	1	15	3175
10	9	1	14	2488
11	9	1	13	2998
12	9	1	12	2934
13	9	1	11	3004
14	9	1	10	2544
15	9	1	9	2912
16	9	1	8	3338
17	9	1	7	3749
18	9	1	6	2001
19	9	1	5	324
20	9	1	4	92
21	9	1	3	79

CONSULTAS RESOLVIDAS

- Quais foram os sensores pelos quais um veículo passou em um determinado dia ordenados pelo tempo?
    - Talvez seja :

```
SELECT  t.dia, s.id_sensor, s.latitude, longitude, v.placa
FROM fato f, dim_veiculo v, dim_sensor s, dim_tempo t
where f.sk_veiculo = v.sk_veiculo
and f.sk_sensor = s.sk_sensor
and f.sk_tempo = t.sk_tempo
order by t.dia, f.sk_tempo;
```

	dia double precision	id_sensor integer	latitude double precision	longitude double precision	placa character varying (255)
1	1	454	-3.777736	-38.547792	5edd5233152d9dde515d07...
2	1	499	-3.793388	-38.517722	0ea1198663c559516eaed9...
3	1	398	-3.783605	-38.521962	4941cdb1f5ee7b1830a8d8...
4	1	27	-3.774056	-38.482056	cff72d6c95402a1e9e1b983...
5	1	368	-3.719155	-38.532494	06c665d4a12ff11ad5002b...
6	1	499	-3.793388	-38.517722	e54f50b4a3eb474cc080cc...
7	1	603	-3.823636	-38.48107	217f1a25c795025fd2ee641...
8	1	10	-3.731972	-38.547555	7142f09af7d05a0df1182a6...
9	1	671	-3.795112	-38.479684	54c91a7cff910f89d0c478e...
10	1	682	-3.708036	-38.569488	2d28eef94e519bd47bdd97...
11	1	427	-3.800505	-38.479237	f52e1099286ccb8c893e32f...
12	1	642	-3.855027	-38.49591	b08649103b2086c65112f9...
13	1	388	-3.812472	-38.479278	cd880adf34539307f9a139...
14	1	388	-3.812472	-38.479278	76a66efcbb6564eeb4c51a...
15	1	96	-3.778182	-38.547267	1ab38e2ff56e6ca545a37cf...
16	1	454	-3.777736	-38.547792	52ef4072904c62c32c80a1...
17	1	30	-3.811982	-38.478994	dd22fed4fff4e9d57271bd8...
18	1	388	-3.812472	-38.479278	217f1a25c795025fd2ee641...
19	1	384	-3.786722	-38.480967	003ae7c06ccf5890fe54e2f...
20	1	30	-3.811982	-38.478994	f52e1099286ccb8c893e32f...

- Quantos veículos passaram por cada sensor no total?

```
 select distinct s.id_sensor,
count(f.sk_sensor)Qtde_sensor
 from fato f, dim_sensor s
 where f.sk_sensor = s.sk_sensor
 group by s.sk_sensor
 order by Qtde_sensor DESC
```

	id_sensor integer	qtde_sensor bigint
1	17	2369
2	388	1912
3	437	1576
4	337	1550
5	631	1540
6	582	1484
7	682	1457
8	642	1428
9	368	1378
10	27	1358
11	266	1301
12	603	1298
13	10	1296
14	329	1287
15	671	1273
16	55	1257
17	606	1245
18	384	1200
19	96	1173
20	499	1144
21	30	1134

- Quantos veículos passaram por cada sensor no total em um determinado dia?

```
select distinct t.dia, s.id_sensor,
count(f.sk_sensor)Qtde_sensor
from fato f, dim_sensor s, dim_tempo t
where f.sk_sensor = s.sk_sensor
and f.sk_tempo = t.sk_tempo
group by t.dia, s.sk_sensor
order by Qtde_sensor DESC
```

	dia double precision	id_sensor integer	qtde_sensor bigint
1	1	17	2369
2	1	388	1912
3	1	437	1576
4	1	337	1550
5	1	631	1540
6	1	582	1484
7	1	682	1457
8	1	642	1428
9	1	368	1378
10	1	27	1358
11	1	266	1301
12	1	603	1298
13	1	10	1296
14	1	329	1287
15	1	671	1273
16	1	55	1257
17	1	606	1245
18	1	384	1200
19	1	96	1173
20	1	499	1144
21	1	30	1134

- Quantos veículos passaram por cada sensor por hora de um determinado dia?

```
select distinct s.id_sensor, t.hora,
count(f.sk_sensor)Qtde_sensor
from fato f, dim_sensor s, dim_tempo t
where f.sk_sensor = s.sk_sensor
and f.sk_tempo = t.sk_tempo
group by s.sk_sensor, t.hora
order by s.id_sensor DESC
```

	id_sensor integer	hora double precision	qtde_sensor bigint
1	742	0	2
2	742	1	3
3	742	5	1
4	742	6	32
5	742	7	66
6	742	8	64
7	742	9	60
8	742	10	65
9	742	11	73
10	742	12	69
11	742	13	64
12	742	14	62
13	742	15	65
14	742	16	66
15	742	17	56
16	742	18	23
17	742	19	30
18	742	20	35
19	742	21	35
20	742	22	30