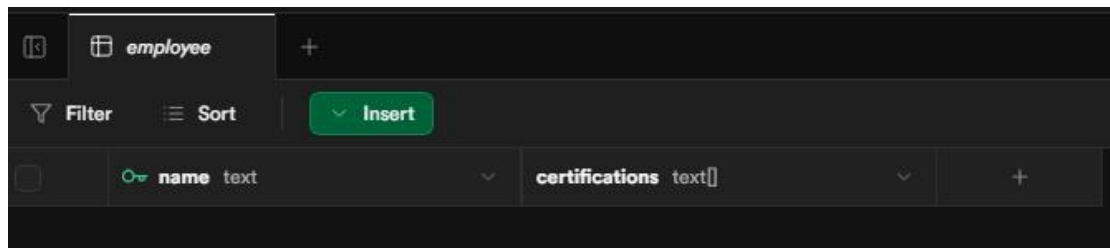
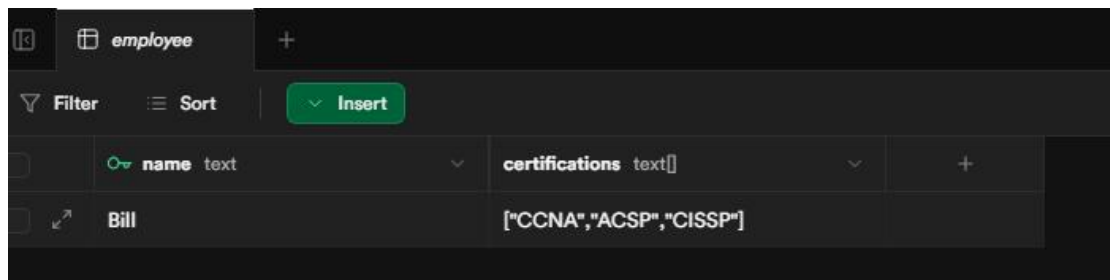


1) CREATE TABLE employee (name TEXT PRIMARY KEY, certifications TEXT[]);



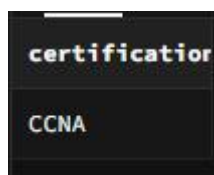
2) INSERT INTO employee VALUES ('Bill', '{"CCNA", "ACSP", "CISSP"}');



3) SELECT name FROM employee WHERE certifications @> '{ACSP}';



4) SELECT certifications[1] FROM employee;



5) SELECT unnest(certifications) FROM employee;



6) SELECT name, unnest(certifications) FROM employee;

name	unnest
Bill	CCNA
Bill	ACSP
Bill	CISSP










7) SELECT DISTINCT relkind FROM pg_class ORDER BY 1;

relkind
I
S
c
i
p
r
t
v

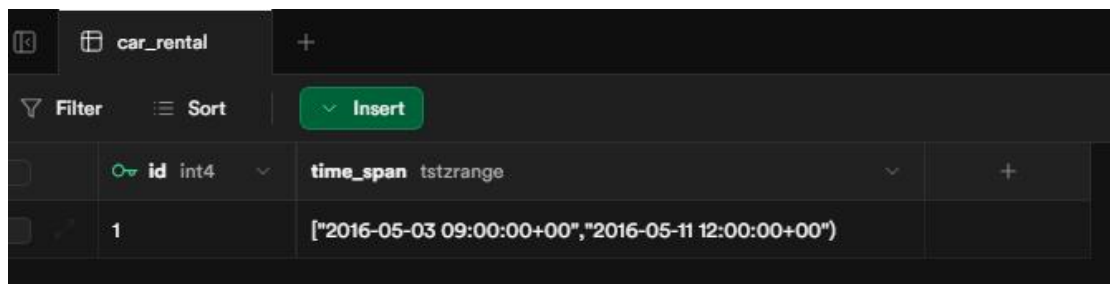
8) SELECT array_agg(DISTINCT relkind) FROM pg_class;

array_agg
{I,S,c,i,p,r,t,v}

9) CREATE TABLE car_rental (id SERIAL PRIMARY KEY, time_span TSTZRANGE);

	 car_rental	+
 Filter	 Sort	 Insert
	 id int4	 time_span tstzrange
		

10) INSERT INTO car_rental VALUES (DEFAULT, '[2016-05-03 09:00:00, 2016-05-11 12:00:00)');



The screenshot shows a database interface for a table named 'car_rental'. At the top, there's a tab for 'car_rental' with a '+' icon. Below it, there are 'Filter' and 'Sort' buttons, and a green 'Insert' button. The table structure is shown with two columns: 'id' of type 'int4' and 'time_span' of type 'tstzrange'. A single row is displayed with 'id' as 1 and 'time_span' as '[2016-05-03 09:00:00+00, 2016-05-11 12:00:00+00)'. There are also checkboxes for each row.

	id int4	time_span tstzrange
<input checked="" type="checkbox"/>	1	[2016-05-03 09:00:00+00, 2016-05-11 12:00:00+00)

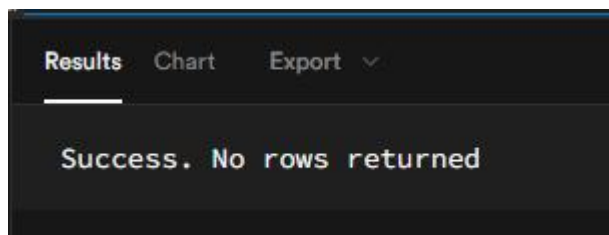
11) SELECT * FROM car_rental WHERE time_span @> '2016-05-09 00:00:00':timestampz;



The screenshot shows the 'Results' tab of a database interface. It displays a table with two columns: 'id' and 'time_span'. The table contains one row with 'id' as 1 and 'time_span' as '[2016-05-03 09:00:00+00, 2016-05-11 12:00:00+00)'. Above the table, there are tabs for 'Results', 'Chart', and 'Export'.

id	time_span
1	[2016-05-03 09:00:00+00, 2016-05-11 12:00:00+00)

12) SELECT * FROM car_rental WHERE time_span @> '2018-06-09 00:00:00':timestampz;



The screenshot shows the 'Results' tab of a database interface. It displays a message: 'Success. No rows returned'. Above the message, there are tabs for 'Results', 'Chart', and 'Export'.

Results
Success. No rows returned

13) INSERT INTO car_rental (time_span) SELECT tstzrange(y, y + '1 day') FROM generate_series('2001-09-01 00:00:00'::timestampz, '2010-09-01 00:00:00'::timestampz, '1 day') AS x(y);

car_rental			
Filter Sort Insert			
	id int4	time_span tstzrange	+
<input type="checkbox"/>	1	["2016-05-03 09:00:00+00","2016-05-11 12:00:00+00")	
<input type="checkbox"/>	2	["2001-09-01 00:00:00+00","2001-09-02 00:00:00+00")	
<input type="checkbox"/>	3	["2001-09-02 00:00:00+00","2001-09-03 00:00:00+00")	
<input type="checkbox"/>	4	["2001-09-03 00:00:00+00","2001-09-04 00:00:00+00")	
<input type="checkbox"/>	5	["2001-09-04 00:00:00+00","2001-09-05 00:00:00+00")	
<input type="checkbox"/>	6	["2001-09-05 00:00:00+00","2001-09-06 00:00:00+00")	
<input type="checkbox"/>	7	["2001-09-06 00:00:00+00","2001-09-07 00:00:00+00")	
<input type="checkbox"/>	8	["2001-09-07 00:00:00+00","2001-09-08 00:00:00+00")	
<input type="checkbox"/>	9	["2001-09-08 00:00:00+00","2001-09-09 00:00:00+00")	
<input type="checkbox"/>	10	["2001-09-09 00:00:00+00","2001-09-10 00:00:00+00")	
<input type="checkbox"/>	11	["2001-09-10 00:00:00+00","2001-09-11 00:00:00+00")	
<input type="checkbox"/>	12	["2001-09-11 00:00:00+00","2001-09-12 00:00:00+00")	
<input type="checkbox"/>	13	["2001-09-12 00:00:00+00","2001-09-13 00:00:00+00")	
<input type="checkbox"/>	14	["2001-09-13 00:00:00+00","2001-09-14 00:00:00+00")	
<input type="checkbox"/>	15	["2001-09-14 00:00:00+00","2001-09-15 00:00:00+00")	
<input type="checkbox"/>	16	["2001-09-15 00:00:00+00","2001-09-16 00:00:00+00")	
<input type="checkbox"/>	17	["2001-09-16 00:00:00+00","2001-09-17 00:00:00+00")	
<input type="checkbox"/>	18	["2001-09-17 00:00:00+00","2001-09-18 00:00:00+00")	
<input type="checkbox"/>	19	["2001-09-18 00:00:00+00","2001-09-19 00:00:00+00")	
<input type="checkbox"/>	20	["2001-09-19 00:00:00+00","2001-09-20 00:00:00+00")	
<input type="checkbox"/>	21	["2001-09-20 00:00:00+00","2001-09-21 00:00:00+00")	
Page 1 of 33 100 rows 3.289 records			

14) `SELECT * FROM car_rental WHERE time_span @> '2007-08-01 00:00:00'::timestampz;`

Results Chart Export	
id	time_span
2162	["2007-08-01 00:00:00+00", "2007-08-02 00:00:00+00"]

15) `ALTER TABLE car_rental ADD EXCLUDE USING GIST (time_span WITH &&);`

16) `INSERT INTO car_rental VALUES (DEFAULT, '[2003-04-01 00:00:00, 2003-04-01 00:00:01]');`

Results Chart Export	Source Primary Database postgres Run CTRL
ERROR: 23P01: conflicting key value violates exclusion constraint "car_rental_time_span_excl" DETAIL: Key (time_span)=(["2003-04-01 00:00:00+00", "2003-04-01 00:00:01+00"]) conflicts with existing key (time_span)=(["2003-04-01 00:00:00+00", "2003-04-02 00:00:00+00"]).	
Debug with Assistant	

17) `CREATE TABLE dart (dartno SERIAL, location POINT);`

```
18) INSERT INTO dart (location) SELECT CAST('(' || random() * 100 || ',' || random() * 100 || ')') AS
point) FROM generate_series(1, 1000);
```

dart			
Filter Sort Insert			
	dartno int4	location point	+
<input type="checkbox"/>	1	(67.3720385165419,53.4634378968969)	
<input type="checkbox"/>	2	(76.566253553524,76.0881006779086)	
Expand row		(23.5484531896211,18.4697906509715)	
<input type="checkbox"/>	4	(11.1876433259506,63.0061713327593)	
<input type="checkbox"/>	5	(82.9080198867413,8.76102114767503)	
<input type="checkbox"/>	6	(81.8015264642725,15.3460915261648)	
<input type="checkbox"/>	7	(10.9768914291812,76.5486098740085)	
<input type="checkbox"/>	8	(97.414659267011,11.9671030119226)	
<input type="checkbox"/>	9	(41.732624023465,20.4362850415241)	
<input type="checkbox"/>	10	(78.6767473970543,62.8550268968864)	
<input type="checkbox"/>	11	(25.8876574609435,45.993260814299)	
<input type="checkbox"/>	12	(94.082573864503,48.7492464952513)	
<input type="checkbox"/>	13	(16.0037281484674,75.8436908084228)	
<input type="checkbox"/>	14	(8.53167131663086,77.1760583404946)	
<input type="checkbox"/>	15	(5.24602459152519,13.1242142181059)	
<input type="checkbox"/>	16	(75.8595537243259,12.6473627729222)	
<input type="checkbox"/>	17	(95.9620318462136,44.2147881172115)	
<input type="checkbox"/>	18	(73.9656988415394,75.1823546032925)	
<input type="checkbox"/>	19	(99.2005114826444,32.3176886938118)	
<input type="checkbox"/>	20	(38.5932695193741,71.8562903729545)	
<input type="checkbox"/>	21	(22.4746075538272,68.1035581811931)	

19) SELECT * FROM dart LIMIT 5;

Results Chart Export ▾		
dartno	location	
1	(67.3720385165419,53.4634378968969)	
2	(76.566253553524,76.0881006779086)	
3	(23.5484531896211,18.4697906509715)	
4	(11.1876433259506,63.0061713327593)	
5	(82.9080198867413,8.76102114767503)	

20) SELECT * FROM dart WHERE location <@ '<(50, 50), 4> '::circle;

Results Chart Export ▾		
dartno	location	
771	(50.5532611124158,49.8892070713164)	
826	(53.2349183013551,47.8691848944745)	
912	(51.2610899820167,52.3455496457774)	

21) CREATE INDEX dart_idx ON dart USING GIST (location);

22) SELECT * FROM dart WHERE location <@ '<(50, 50), 4> '::circle;

Results Chart Export ▾		
dartno	location	
826	(53.2349183013551,47.8691848944745)	
771	(50.5532611124158,49.8892070713164)	
912	(51.2610899820167,52.3455496457774)	

23) SELECT * FROM dart ORDER BY location <-> '(50, 50)::point LIMIT 2;

Results Chart Export ▾	
dartno	location
771	(50.5532611124158,49.8892070713164)
912	(51.2610899820167,52.3455496457774)

24) CREATE TABLE printer (doc XML);

25) COPY printer from '/tmp/foomatic.xml';

Results Chart Export ▾	
ERROR: 42501: permission denied to COPY from a file DETAIL: Only roles with privileges of the "pg_read_server_files" role may COPY from a file. HINT: Anyone can COPY to stdout or from stdin. psql's \copy command also works for anyone.	

26) SELECT (xpath('/option/arg_shortcode/en', doc)) FROM printer LIMIT 5;

27) CREATE TABLE friend (id SERIAL, data JSON);