INSTITUTO FEDERAL
Rio Grande do Norte

Tipos básicos SQL

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Categorias dos tipos básicos SQL

Tipos numéricos

Tipos de *string* (caracteres)

Tipos de data e hora

Tipos booleanos

Tipos enumerados

Tipos numéricos

Name	Storage Size	Description	Range
`smallint`	2 bytes	small-range integer	-32768 to +32767
`integer`	4 bytes	typical choice for integer	-2147483648 to +2147483647
`bigint`	8 bytes	large-range integer	-9223372036854775808 to +9223372036854775807
`decimal`	variable	user-specified precision, exact	up to 131072 digits before the decimal point; up to 16383 digits after the decimal point
`numeric`	variable	user-specified precision, exact	up to 131072 digits before the decimal point; up to 16383 digits after the decimal point
`real`	4 bytes	variable-precision, inexact	6 decimal digits precision
`double precision`	8 bytes	variable-precision, inexact	15 decimal digits precision
`smallserial`	2 bytes	small autoincrementing integer	1 to 32767
`serial`	4 bytes	autoincrementing integer	1 to 2147483647
`bigserial`	8 bytes	large autoincrementing integer	1 to 9223372036854775807

- inteiro (integer)

- real (floating-point)

- decimal (precisão + escala)

Serial

Serial é um pseudotipo que representa uma sequência de inteiros criado automaticamente

Serial

```
CREATE TABLE table_name(
    id SERIAL
);
```

Esses códigos são equivalentes!

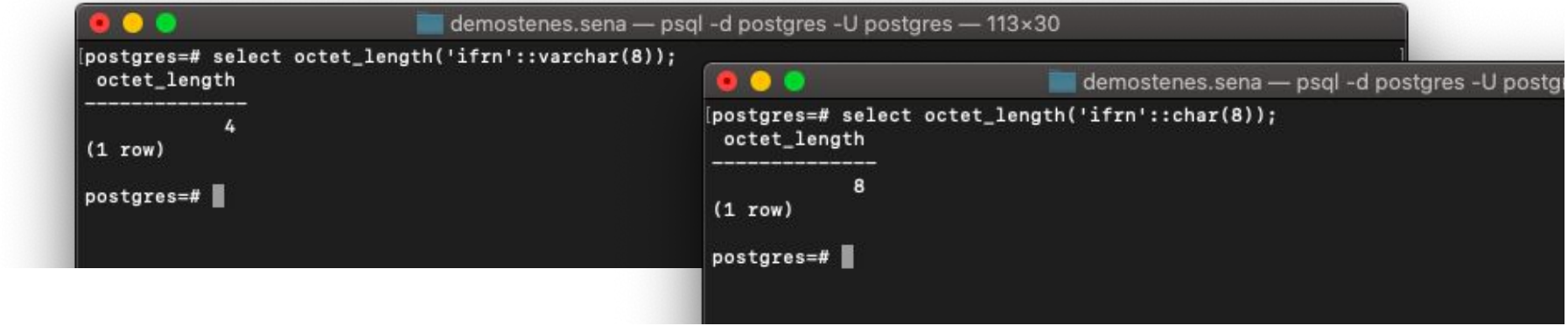
```
CREATE SEQUENCE table_name_id_seq;

CREATE TABLE table_name (
    id integer NOT NULL DEFAULT nextval('table_name_id_seq')
);

ALTER SEQUENCE table_name_id_seq OWNED BY table_name.id;
```

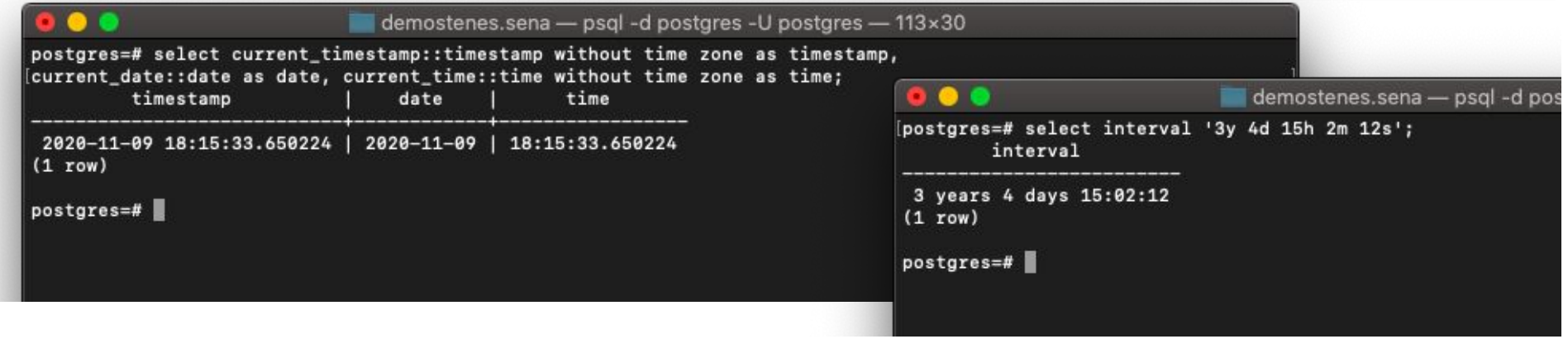
Tipos de string (caracteres)

Name	Description
`character varying(n), varchar(n)`	variable-length with limit
`character(n), char(n)`	fixed-length, blank padded
`text`	variable unlimited length



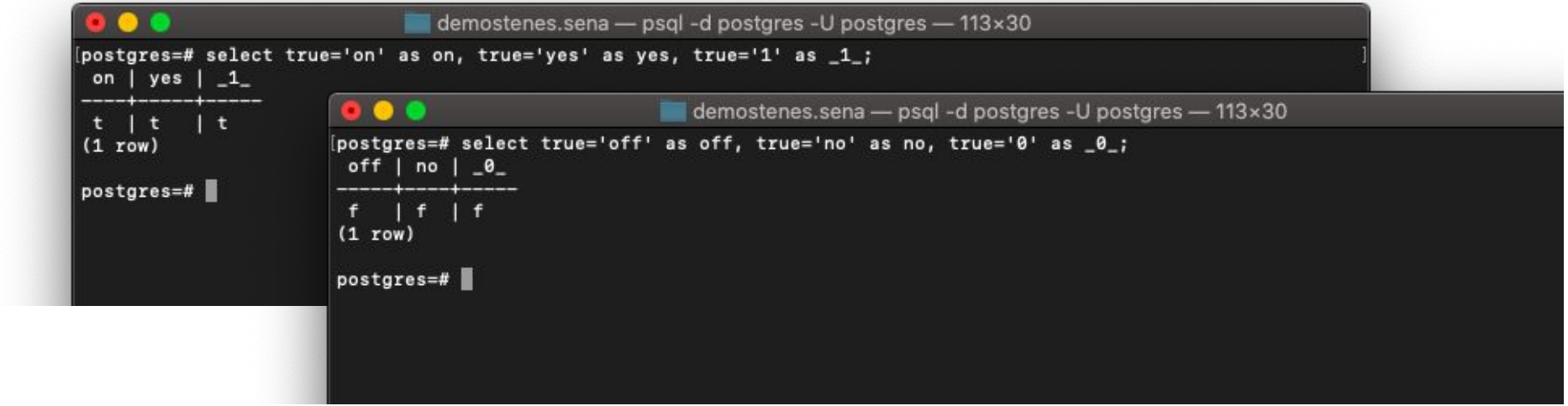
Tipos de data e hora

Name	Storage Size	Description	Low Value	High Value	Resolution
`timestamp [ (p) ] [ without time zone ]`	8 bytes	both date and time (no time zone)	4713 BC	294276 AD	1 microsecond
`timestamp [ (p) ] with time zone`	8 bytes	both date and time, with time zone	4713 BC	294276 AD	1 microsecond
`date`	4 bytes	date (no time of day)	4713 BC	5874897 AD	1 day
`time [ (p) ] [ without time zone ]`	8 bytes	time of day (no date)	00:00:00	24:00:00	1 microsecond
`time [ (p) ] with time zone`	12 bytes	time of day (no date), with time zone	00:00:00+1559	24:00:00-1559	1 microsecond
`interval [ fields ] [ (p) ]`	16 bytes	time interval	-178000000 years	178000000 years	1 microsecond



Tipos booleanos

Name	Storage Size	Description
`boolean`	1 byte	state of true or false



Tipos enumerados

```
CREATE TYPE dia_da_semana AS ENUM
    ('Dom', 'Seg', 'Ter', 'Qua', 'Qui', 'Sex', 'Sab');
```

Aliases dos tipos

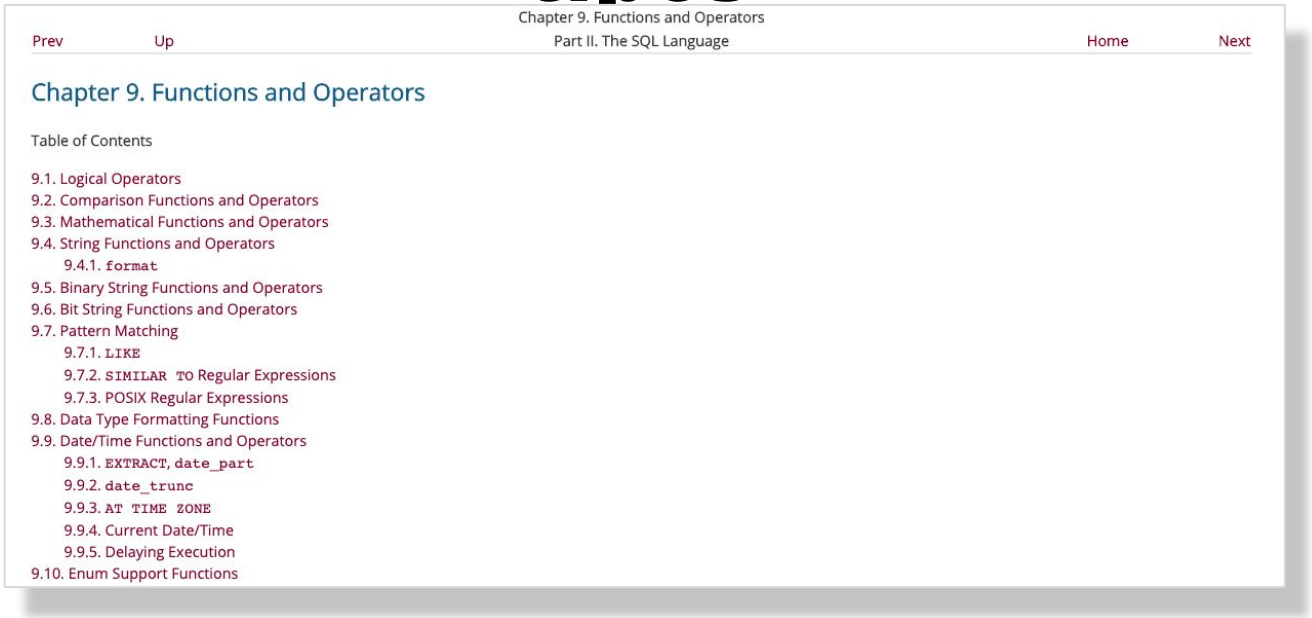
Name	Aliases	Description
`bigint`	`int8`	signed eight-byte integer
`bigserial`	`serial8`	autoincrementing eight-byte integer
`bit [ (n) ]`		fixed-length bit string
`bit varying [ (n) ]`	`varbit [ (n) ]`	variable-length bit string
`boolean`	`bool`	logical Boolean (true/false)
`box`		rectangular box on a plane
`bytea`		binary data (“byte array”)
`character [ (n) ]`	`char [ (n) ]`	fixed-length character string
`character varying [ (n) ]`	`varchar [ (n) ]`	variable-length character string
`cidr`		IPv4 or IPv6 network address
`circle`		circle on a plane
`date`		calendar date (year, month, day)
`double precision`	`float8`	double precision floating-point number (8 bytes)
`inet`		IPv4 or IPv6 host address
`integer`	`int`, `int4`	signed four-byte integer
`interval [ fields ] [ (p) ]`		time span

Tipos específicos PostgreSQL

```
CREATE TABLE cidade (
    nome                varchar(80),
    localização         point
);
```

`point` é um exemplo de tipo de dados específico em PostgreSQL.

Funções e Operadores sobre os tipos



Chapter 9. Functions and Operators

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Chapter 9. Functions and Operators

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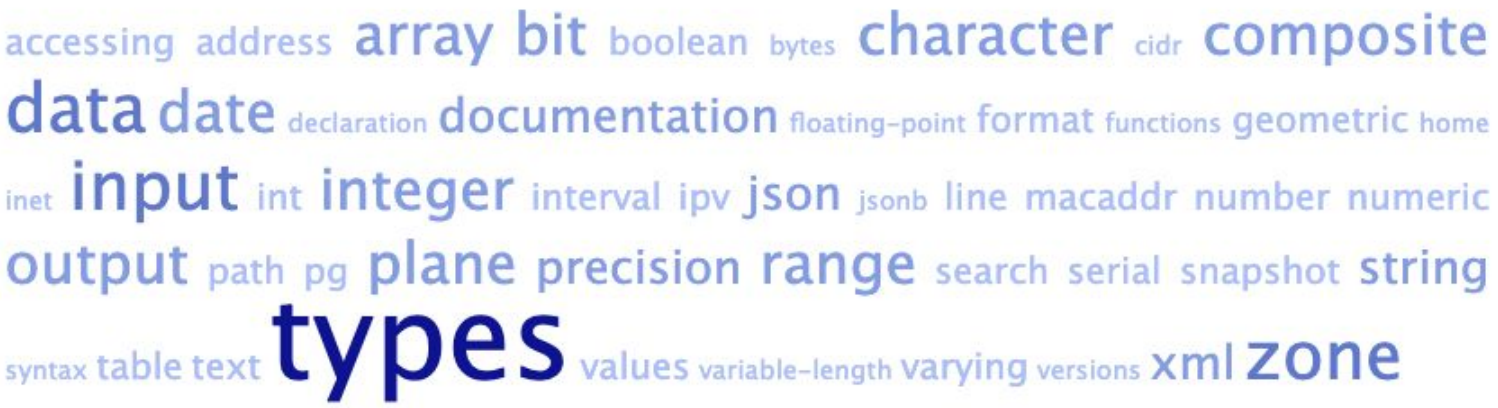
Mais informações

https://www.postgresql.org/docs/current/functions.html

Tipos PostgreSQL



Mais informações

https://www.postgresql.org/docs/current/datatype.html

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