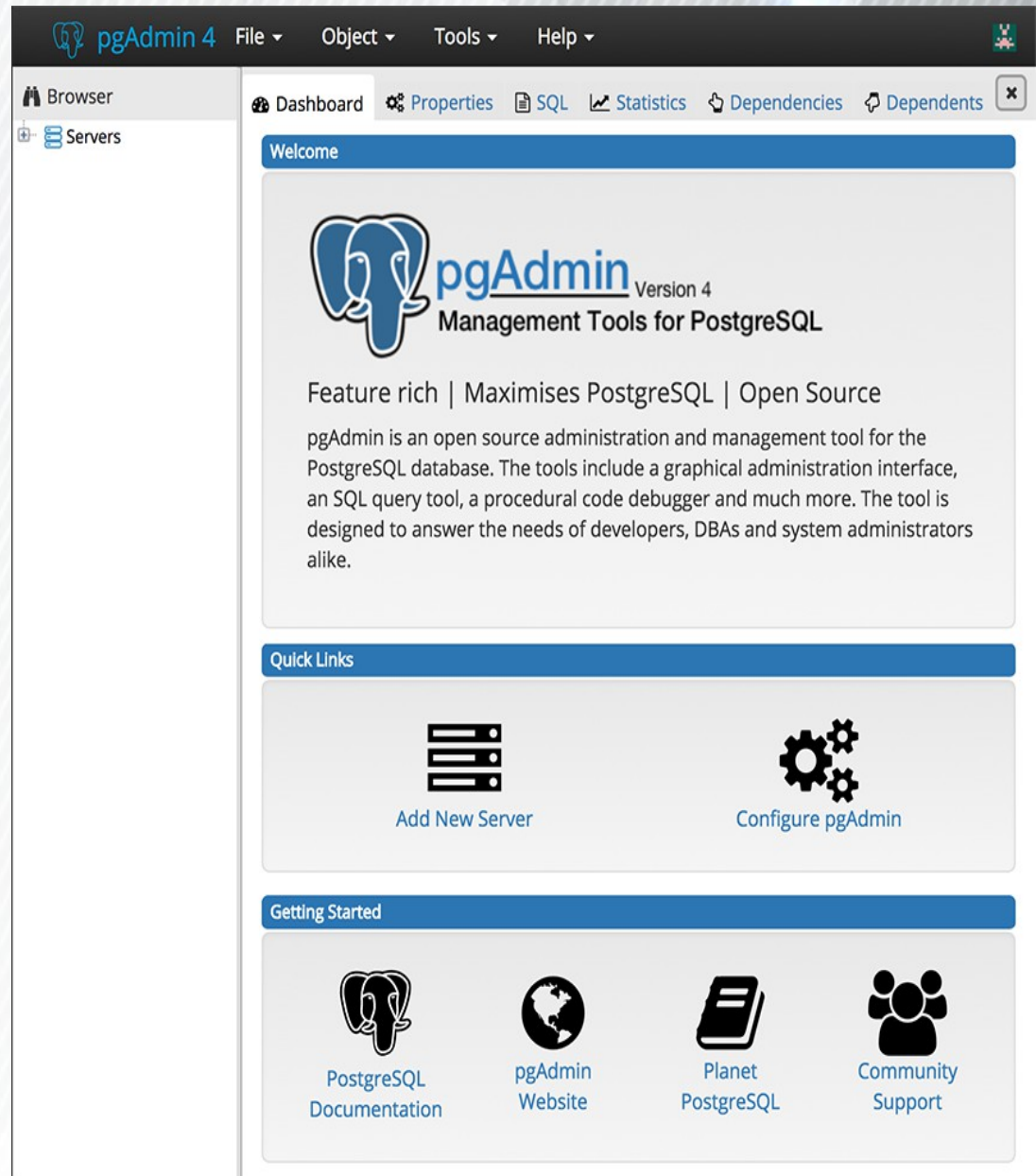


POSTGRES



PostgreSQL

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NOMENCLATURAS



PostgreSQL

Comandos – Letra Maiuscula – Exemplo (CREATE, ALTER, SELECT, UPDATE).

Objetos – Letra Minúscula – Exemplo (tabelas, Colunas, indices).

ACESSO AO POSTGRES

The image shows the pgAdmin 4 web interface. At the top, there's a header with the pgAdmin logo and navigation menus (File, Object, Tools, Help). Below this is a toolbar with icons for various functions. The main content area is divided into a left sidebar with a 'Servers' tree and a main panel. The main panel displays a 'Welcome' message with the pgAdmin logo and a description of the tool. A modal dialog box titled 'Unlock Saved Passwords' is open in the center. It contains the text: 'Please enter your master password. This is required to unlock saved passwords and reconnect to the database server(s).' Below this text is a password input field. At the bottom of the dialog, there are three buttons: a help button (question mark), a 'Reset Master Password' button, and a 'Cancel' button. To the right of the 'Cancel' button is an 'OK' button. The background interface shows 'Quick Links' for 'Add New Server' and 'Configure pgAdmin', and a 'Getting Started' section with links to 'PostgreSQL Documentation', 'pgAdmin Website', and 'Planet PostgreSQL'.

pgAdmin 4

pgAdmin File Object Tools Help

Browser

Servers

Dashboard Properties SQL Statistics Dependencies Dependents

Welcome

pgAdmin Management

Feature rich | Maximum performance

pgAdmin is an Open Source administration tool that answers the needs of developers, system administrators, and database administrators. It provides a comprehensive administration interface, an SQL query tool, a procedural code debugger and a schema designer.

Quick Links

Add New Server

Configure pgAdmin

Getting Started

PostgreSQL Documentation

pgAdmin Website

Planet PostgreSQL

Unlock Saved Passwords

Please enter your master password.
This is required to unlock saved passwords and reconnect to the database server(s).

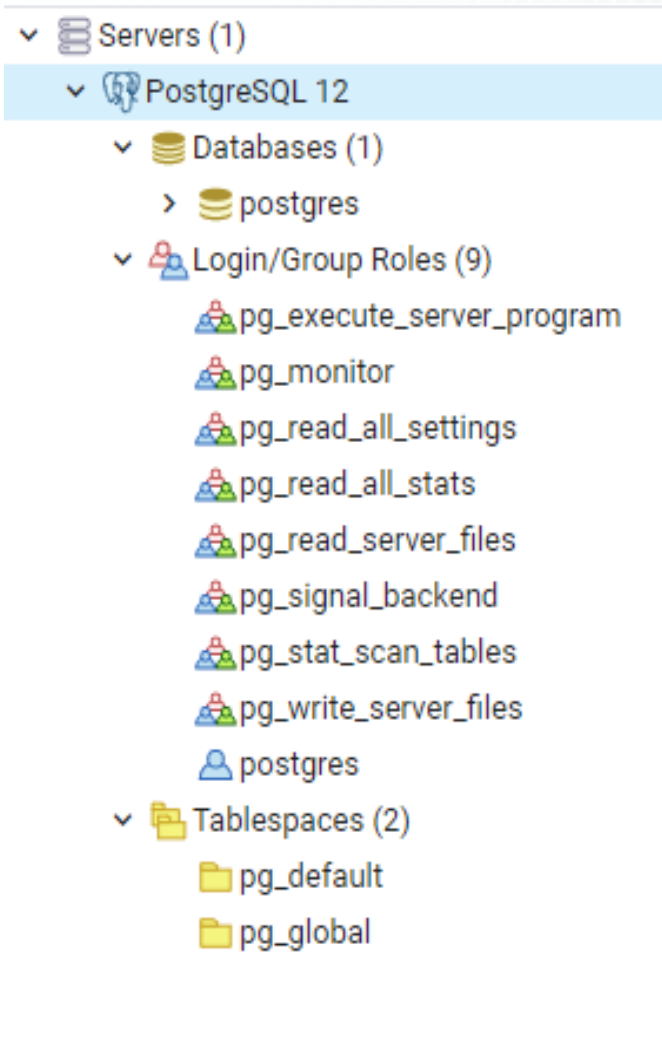
Password

? Reset Master Password

X Cancel

✓ OK

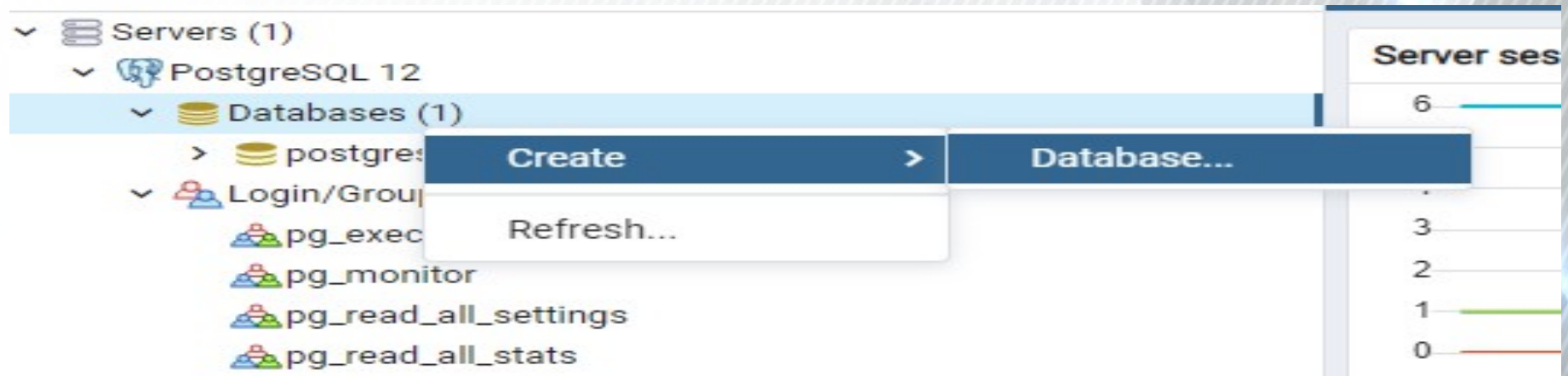
O QUE TEMOS ?



Será listado:

- databases (banco de dados)
- users (Usuários)
- tablespaces (onde os objetos ficam)

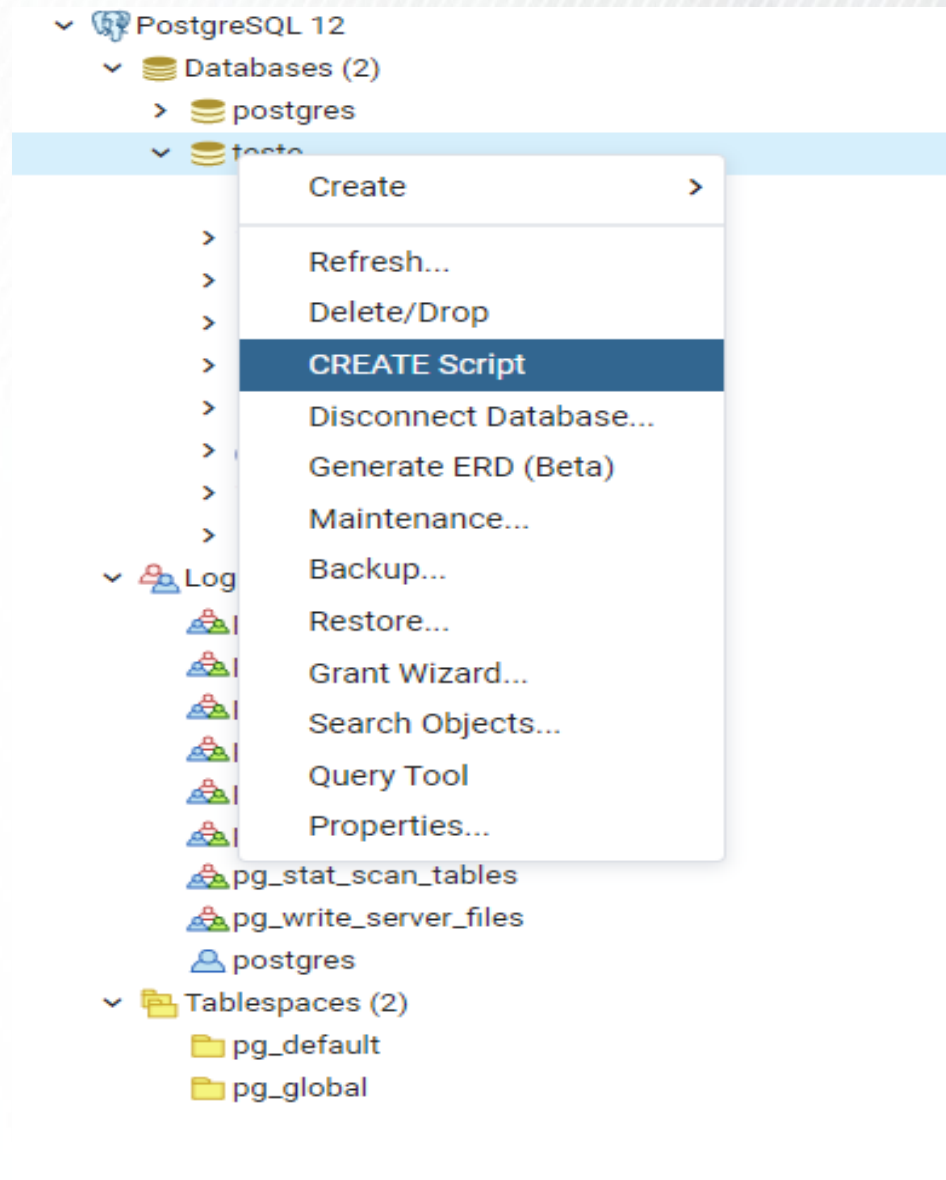
CRIAR DATABASE



The 'Create - Database' dialog box is shown with the 'General' tab selected. The 'Database' field contains 'teste'. The 'Owner' field is set to 'postgres'. The 'Comment' field contains 'Meu Banco de Testes'. The dialog has tabs for 'General', 'Definition', 'Security', 'Parameters', 'Advanced', and 'SQL'. At the bottom, there are buttons for 'Cancel', 'Reset', and 'Save'.

Field	Value
Database	teste
Owner	postgres
Comment	Meu Banco de Testes


NEW LIFE - SQL



TIPOS DE DADOS - POSTGRES

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 / 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
serial	4 bytes	autoincrementing integer	1 to 2147483647
bigserial	8 bytes	large autoincrementing integer	1 to 9223372036854775807

TIPOS DE DADOS - POSTGRES

Name	Storage Size	Description
character varying(n), varchar (n)	variable(can store n chars) 	variable-length with limit
character(n), char(n)	n chars	fixed-length, blank padded
text	variable	variable unlimited length
"char"	1 byte	single-byte internal type
name	64 bytes	internal type for object names

TIPOS DE DADOS - POSTGRES

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 / 14 digits
timestamp [(p)] with time zone	8 bytes	both date and time, with time zone	4713 BC	294276 AD	1 microsecond / 14 digits
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 / 14 digits
time [(p)] with time zone	12 bytes	times of day only, with time zone	00:00:00+1459	24:00:00-1459	1 microsecond / 14 digits
interval [fields] [(p)]	12 bytes	time interval	-178000000 years	178000000 years	1 microsecond / 14 digits

CRIANDO TABELA

```
CREATE TABLE alunosBetha(  
    i_alunos INTEGER,  
    nome VARCHAR(60)  
);
```

ADICIONANDO DADOS

```
INSERT INTO alunosBetha (i_alunos, nome)  
VALUES (1, 'Tiago da Rosa Valério');
```


DELETANDO DADOS

```
DELETE FROM alunosBetha;
```

EXCLUINDO DO POSTGRES

```
DROP TABLE alunosBetha;
```

COLUNA NOT NULL

```
CREATE TABLE alunosBetha(  
i_alunos INTEGER,  
nome VARCHAR(60) NOT NULL,  
cidade VARCHAR(60));
```


VALOR PADRÃO

```
CREATE TABLE alunosBetha(  
i_alunos INTEGER,  
nome VARCHAR(60) NOT NULL,  
cidade VARCHAR(60),  
Estado VACHAR(2) DEFAULT 'SC' );
```

RESTRIÇÃO DE UNICIDADE

```
CREATE TABLE alunosBetha(  
i_alunos INTEGER,  
nome VARCHAR(60) NOT NULL UNIQUE,  
cidade VARCHAR(60),  
Estado VACHAR(2) DEFAULT 'SC' );
```

RESTRIÇÃO DE VERIFICAÇÃO

```
CREATE TABLE alunosBetha(  
i_alunos INTEGER,  
nome VARCHAR(60) NOT NULL UNIQUE,  
cidade VARCHAR(60),  
estado VARCHAR(2) DEFAULT 'SC',  
ativo VARCHAR(1) CHECK(ATIVO in ('S','N')) );
```


CHAVE PRIMÁRIA

```
CREATE TABLE alunosBetha(  
i_alunos INTEGER,  
nome VARCHAR(60) NOT NULL UNIQUE,  
cidade VARCHAR(60),  
PRIMARY KEY(i_alunos) );
```

EXEMPLO

PESSOAS

(pk)i_pessoas	serial,	
nome	varchar(60)	not null,
tipo_pessoa	varchar(1)	'F','J' valor padrão F
cpf_cnpj	varchar(14)	not null único,
email	varchar(100),	
telefone	varchar(14),	
celular	varchar(14)	

EXERCÍCIO

ATIVIDADES

(pk)i_atividades	serial,	
descricao	varchar(60)	not null unico,
tipo	varchar(1)	not null 'A','S'
classificacao	varchar(1)	not null 'A','I','C','S'
aliquota	decimal(7,4)	not null > 0,

CHAVE ESTRANGEIRA

```
CREATE TABLE responsaveis_alunosBetha(  
i_responsaveis INTEGER,  
i_alunos    INTEGER REFERENCES alunosBetha(i_alunos),  
nome    VARCHAR(60) NOT NULL,  
telefone VARCHAR(14),  
email VARCHAR(60),  
PRIMARY KEY(i_responsaveis) );
```

EXEMPLO

PESSOAS

(pk)i_pessoas	serial,	
nome	varchar(60)	not null,
tipo_pessoa	varchar(1)	'F','J' valor padrão F
cpf_cnpj	varchar(14)	not null único,
email	varchar(100),	
telefone	varchar(14),	
celular	varchar(14)	

ENDERECOS_PESSOAS

(pk)i_pessoas	serial	fk de pessoas,
(pk)tipo_endereco	varchar(1)	'P','S','C' valor padrão P
bairro	varchar(60),	
rua	varchar(60),	
numero	varchar(10,	
cidade	varchar(60),	
uf	varchar(2),	valor padrão SC

EXERCÍCIO

ATIVIDADES

(pk)i_atividades	serial,	
descricao	varchar(60)	not null unico,
tipo	varchar(1)	not null 'A','S'
classificacao	varchar(1)	not null 'A','I','C','S'
aliquota	decimal(7,4)	not null > 0,

EMPRESAS

(pk)i_empresas	serial,	
nome	varchar(100)	not null,
nome_fantasia	varchar(100)	not null,
funcionarios	integer	> 0
(fk)i_atividades	integer	Fk de Atividades,

ALTERANDO TABELAS

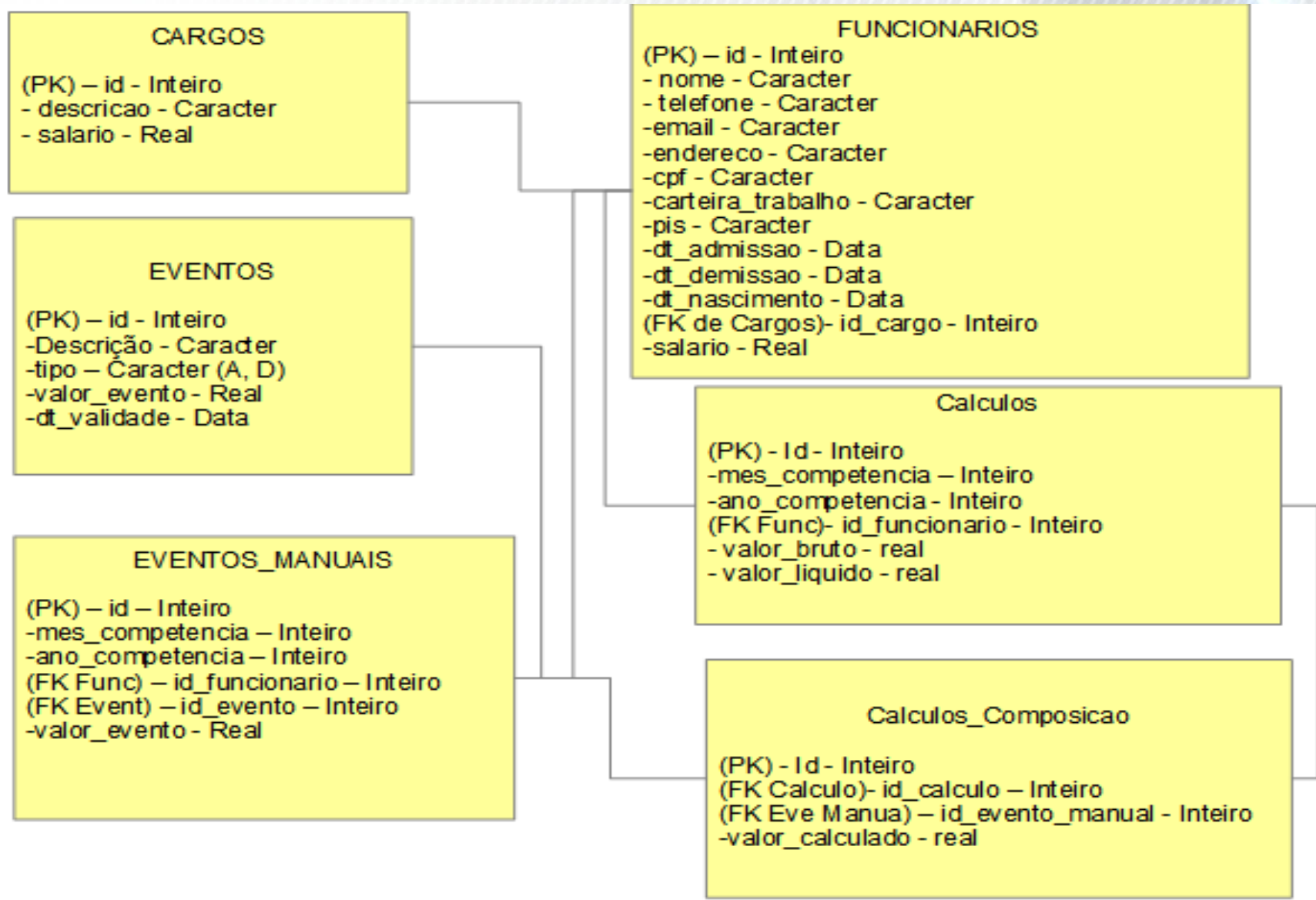
```
ALTER TABLE alunosBetha ADD estado VARCHAR(2);
```

```
ALTER TABLE alunosBetha DROP estado;
```

```
ALTER TABLE alunosBetha
```

```
ALTER COLUMN cidade TYPE VARCHAR(100);
```

Exercício – Criação de Estrutura



Exercício – Tarefa

Criar Database/Estrutura no modelo criado no trabalho.