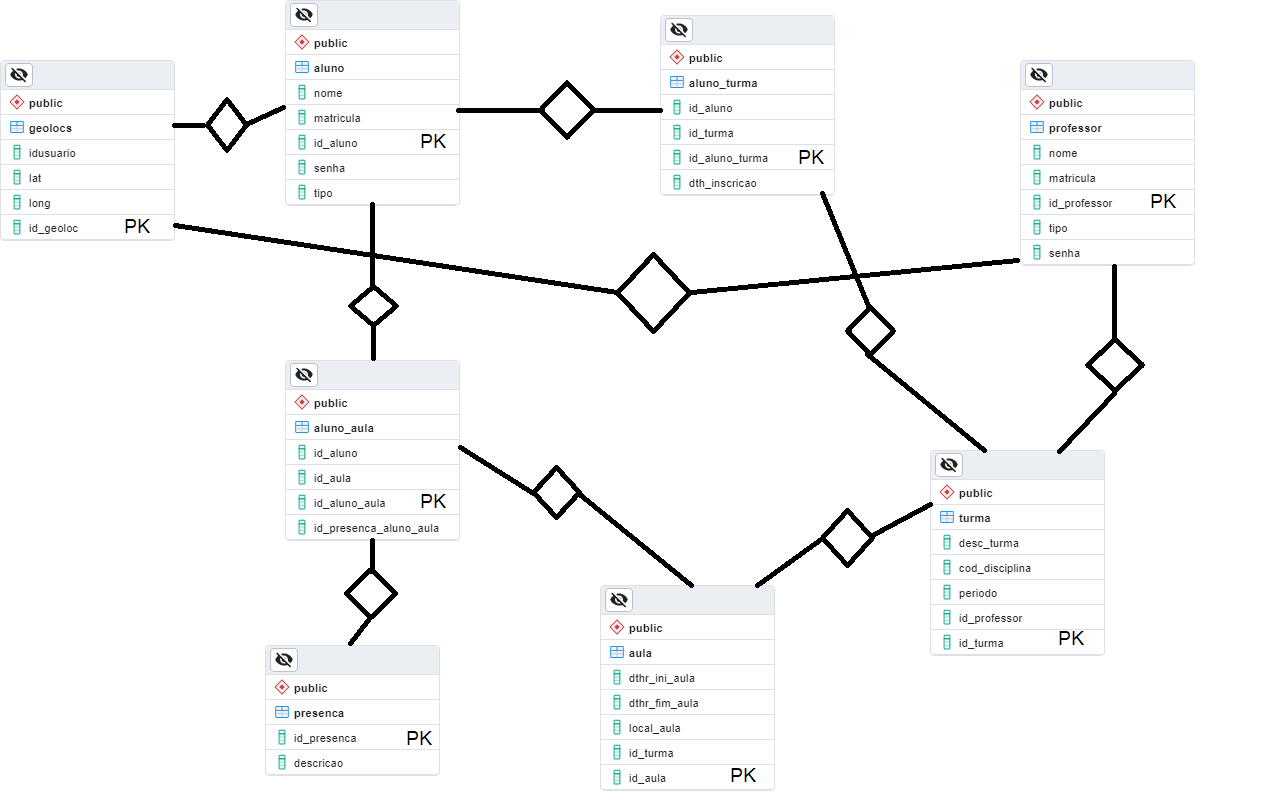
**Banco de Dados**

* Diagrama Entidade-Relacionamento



* Script SQL



--

-- PostgreSQL database dump

--

-- Dumped from database version 15.4

-- Dumped by pg\_dump version 15.4

-- Started on 2023-11-22 22:57:48

SET statement\_timeout = 0;

SET lock\_timeout = 0;

SET idle\_in\_transaction\_session\_timeout = 0;

SET client\_encoding = 'UTF8';

SET standard\_conforming\_strings = on;

SELECT pg\_catalog.set\_config('search\_path', '', false);

SET check\_function\_bodies = false;

SET xmloption = content;

SET client\_min\_messages = warning;

SET row\_security = off;

--

-- TOC entry 247 (class 1255 OID 16665)

-- Name: criar\_aula(date, integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.criar\_aula(data\_p date, id\_turma\_p integer) RETURNS void

LANGUAGE plpgsql

AS $$

DECLARE

id\_aula\_v INT;

aluno\_rec RECORD;

BEGIN

-- Inserir um novo registro na tabela Aula

INSERT INTO Aula (dthr\_ini\_aula, id\_turma) VALUES (data\_p, id\_turma\_p);

SELECT id\_aula INTO id\_aula\_v FROM Aula WHERE dthr\_ini\_aula = data\_p AND id\_turma\_p = id\_turma\_p;

-- Inserir um novo registro na tabela aluno\_aula para cada aluno

FOR aluno\_rec IN (SELECT id\_aluno FROM Aluno)

LOOP

INSERT INTO aluno\_aula (id\_aula, id\_presenca\_aluno\_aula, id\_aluno)

VALUES (id\_aula\_v, 0, aluno\_rec.id\_aluno);

END LOOP;

END;

$$;

ALTER FUNCTION public.criar\_aula(data\_p date, id\_turma\_p integer) OWNER TO doadmin;

--

-- TOC entry 245 (class 1255 OID 16527)

-- Name: inscrevealunoturma(integer, integer); Type: PROCEDURE; Schema: public; Owner: doadmin

--

CREATE PROCEDURE public.inscrevealunoturma(IN num\_aluno integer, IN num\_turma integer)

LANGUAGE plpgsql

AS $$

declare

status int;

existeAluno int;

existeTurma int;

jaInscrito int;

BEGIN

existeAluno := COUNT(\*) FROM aluno a where a.id\_aluno = num\_aluno;

existeTurma := COUNT(\*) FROM turma a where a.id\_turma = num\_turma;

jaInscrito := COUNT(\*) FROM aluno\_turma a where a.id\_turma = num\_turma and a.id\_aluno = num\_aluno;

RAISE NOTICE 'testando:% e % e %',existeAluno,existeTurma,jaInscrito;

--Aluno nao encontrado

IF existeAluno = 0 THEN

RAISE exception 'Aluno não encontrado';

END IF;

-- Turma não encontrada

IF existeTurma = 0 THEN

RAISE exception 'Turma não encontrada';

END IF;

-- Já inscrito

IF jaInscrito > 0 THEN

RAISE notice 'Já cadastrado';

else

insert into aluno\_turma (id\_aluno, id\_turma, dth\_inscricao) values (num\_aluno, num\_turma, CURRENT\_TIMESTAMP::timestamp);

END IF;

RAISE NOTICE '1';

EXCEPTION

WHEN OTHERS THEN

-- Handle exceptions here if needed

RAISE NOTICE '0';

END $$;

ALTER PROCEDURE public.inscrevealunoturma(IN num\_aluno integer, IN num\_turma integer) OWNER TO doadmin;

--

-- TOC entry 250 (class 1255 OID 16697)

-- Name: lista\_alunos\_turma(integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.lista\_alunos\_turma(num\_turma integer) RETURNS TABLE(nome character varying, desc\_turma character varying, matricula character varying, id\_aluno integer)

LANGUAGE plpgsql

AS $$

declare

status int;

BEGIN

RETURN QUERY

select a.nome, c.desc\_turma ,a.matricula,a.id\_aluno from aluno a

inner join aluno\_turma b on a.id\_aluno = b.id\_aluno

inner join turma c on b.id\_turma = c.id\_turma

where b.id\_turma = num\_turma order by a.nome;

/\*inner join turma c on b.id\_turma = c.id\_turma

inner join aluno\_aula d on a.id\_aluno = d.id\_aluno and d.id\_aula = num\_aula;\*/

END $$;

ALTER FUNCTION public.lista\_alunos\_turma(num\_turma integer) OWNER TO doadmin;

--

-- TOC entry 251 (class 1255 OID 16713)

-- Name: listaalunoscompresenca(integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.listaalunoscompresenca(num\_aula integer) RETURNS TABLE(nome character varying, matricula character varying, id\_aluno integer, presenca text)

LANGUAGE plpgsql

AS $$

declare

status int;

BEGIN

return query

select b.nome,b.matricula,a.id\_aluno ,concat(presenca\_aluno (a.id\_aluno,d.id\_turma),'%') as presenca from aluno\_aula a

inner join aluno b on a.id\_aluno = b.id\_aluno

inner join aula c on a.id\_aula = c.id\_aula

inner join turma d on c.id\_turma = d.id\_turma

where a.id\_aula = num\_aula;

END

$$;

ALTER FUNCTION public.listaalunoscompresenca(num\_aula integer) OWNER TO doadmin;

--

-- TOC entry 249 (class 1255 OID 16694)

-- Name: listaalunoscompresenca(integer, integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.listaalunoscompresenca(num\_aula integer, num\_disciplina integer) RETURNS TABLE(nome character varying, matricula character varying, id\_aluno integer, presenca double precision)

LANGUAGE plpgsql

AS $$

declare

BEGIN

RETURN QUERY

select a.nome,a.matricula,a.id\_aluno, cast(presenca\_aluno (a.id\_aluno,b.id\_turma) as char(3))+'%' as presenca from aluno a

inner join aluno\_turma b on a.id\_aluno = b.id\_aluno

inner join turma c on b.id\_turma = c.id\_turma

inner join aluno\_aula d on a.id\_aluno = id\_aluno and a.id\_aula = num\_aula;

END $$;

ALTER FUNCTION public.listaalunoscompresenca(num\_aula integer, num\_disciplina integer) OWNER TO doadmin;

--

-- TOC entry 248 (class 1255 OID 16692)

-- Name: presenca\_aluno(integer, integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.presenca\_aluno(num\_aluno integer, num\_turma integer) RETURNS double precision

LANGUAGE plpgsql

AS $$

declare

quantidade\_aulas float;

quantidade\_presencas float;

porcentagem float;

status int;

BEGIN

quantidade\_aulas := COUNT(\*) FROM aula a where a.id\_turma = num\_turma;

quantidade\_presencas := COUNT(\*) FROM aluno\_aula a

inner join aula b on a.id\_aula = b.id\_aula

where b.id\_turma = num\_turma and a.id\_aluno = num\_aluno

and a.id\_presenca\_aluno\_aula != 0;

porcentagem := (quantidade\_presencas/quantidade\_aulas)\*100;

return porcentagem;

END $$;

ALTER FUNCTION public.presenca\_aluno(num\_aluno integer, num\_turma integer) OWNER TO doadmin;

--

-- TOC entry 246 (class 1255 OID 16549)

-- Name: relatorio\_de\_turma(integer); Type: FUNCTION; Schema: public; Owner: doadmin

--

CREATE FUNCTION public.relatorio\_de\_turma(ident\_turma integer) RETURNS TABLE(id\_aula integer, data\_aula timestamp without time zone, id\_turma integer)

LANGUAGE plpgsql

AS $$

BEGIN

--tabelas temporarias necessarias:

CREATE TEMPORARY TABLE alunos(ident\_aluno int);

CREATE TEMPORARY TABLE aulas(id\_aula int, data\_aula timestamp, id\_turma int);

--pegando os alunos

insert into alunos select a.id\_aluno from aluno\_turma a where a.id\_turma = ident\_turma;

insert into aulas select a.id\_aula, a.dthr\_ini\_aula, a.id\_turma from aula a where a.id\_turma = ident\_turma;

-- Retornar um conjunto de resultados no final

RETURN QUERY

SELECT a.id\_aula, a.data\_aula , a.id\_turma

FROM aulas a;

drop table alunos;

drop table aulas;

-- Mais operações, se necessário

-- ...

END;

$$;

ALTER FUNCTION public.relatorio\_de\_turma(ident\_turma integer) OWNER TO doadmin;

SET default\_tablespace = '';

SET default\_table\_access\_method = heap;

--

-- TOC entry 221 (class 1259 OID 16466)

-- Name: aluno; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.aluno (

nome character varying(100),

matricula character varying(20),

id\_aluno integer NOT NULL,

senha character varying(20),

tipo character varying(1)

);

ALTER TABLE public.aluno OWNER TO doadmin;

--

-- TOC entry 229 (class 1259 OID 16483)

-- Name: aluno\_aula; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.aluno\_aula (

id\_aluno integer,

id\_aula integer,

id\_aluno\_aula integer NOT NULL,

id\_presenca\_aluno\_aula integer

);

ALTER TABLE public.aluno\_aula OWNER TO doadmin;

--

-- TOC entry 228 (class 1259 OID 16482)

-- Name: aluno\_aula\_id\_aluno\_aula\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.aluno\_aula ALTER COLUMN id\_aluno\_aula ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.aluno\_aula\_id\_aluno\_aula\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 220 (class 1259 OID 16465)

-- Name: aluno\_id\_aluno\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.aluno ALTER COLUMN id\_aluno ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.aluno\_id\_aluno\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 231 (class 1259 OID 16487)

-- Name: aluno\_turma; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.aluno\_turma (

id\_aluno integer,

id\_turma integer,

id\_aluno\_turma integer NOT NULL,

dth\_inscricao timestamp without time zone

);

ALTER TABLE public.aluno\_turma OWNER TO doadmin;

--

-- TOC entry 230 (class 1259 OID 16486)

-- Name: aluno\_turma\_id\_aluno\_turma\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.aluno\_turma ALTER COLUMN id\_aluno\_turma ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.aluno\_turma\_id\_aluno\_turma\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 227 (class 1259 OID 16479)

-- Name: aula; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.aula (

dthr\_ini\_aula timestamp without time zone,

dthr\_fim\_aula timestamp without time zone,

local\_aula point,

id\_turma integer,

id\_aula integer NOT NULL

);

ALTER TABLE public.aula OWNER TO doadmin;

--

-- TOC entry 226 (class 1259 OID 16478)

-- Name: aula\_id\_aula\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.aula ALTER COLUMN id\_aula ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.aula\_id\_aula\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 232 (class 1259 OID 16500)

-- Name: geolocs; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.geolocs (

idusuario integer,

lat double precision,

long double precision,

id\_geoloc integer

);

ALTER TABLE public.geolocs OWNER TO doadmin;

--

-- TOC entry 233 (class 1259 OID 16684)

-- Name: presenca; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.presenca (

id\_presenca integer,

descricao character varying(50)

);

ALTER TABLE public.presenca OWNER TO doadmin;

--

-- TOC entry 223 (class 1259 OID 16471)

-- Name: professor; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.professor (

nome character varying(100),

matricula character varying(20),

id\_professor integer NOT NULL,

tipo character varying(1),

senha character varying(20)

);

ALTER TABLE public.professor OWNER TO doadmin;

--

-- TOC entry 222 (class 1259 OID 16470)

-- Name: professor\_id\_professor\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.professor ALTER COLUMN id\_professor ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.professor\_id\_professor\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 225 (class 1259 OID 16475)

-- Name: turma; Type: TABLE; Schema: public; Owner: doadmin

--

CREATE TABLE public.turma (

desc\_turma character varying(100),

cod\_disciplina character varying(10),

periodo character(6),

id\_professor integer,

id\_turma integer NOT NULL

);

ALTER TABLE public.turma OWNER TO doadmin;

--

-- TOC entry 224 (class 1259 OID 16474)

-- Name: turma\_id\_turma\_seq; Type: SEQUENCE; Schema: public; Owner: doadmin

--

ALTER TABLE public.turma ALTER COLUMN id\_turma ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME public.turma\_id\_turma\_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

-- Completed on 2023-11-22 22:58:01

--

-- PostgreSQL database dump complete

--