

**UNIVERSIDADE FEDERAL DE MATO GROSSO**

**CIÊNCIA DA COMPUTAÇÃO**

**PROVA LABORATÓRIO DE BANCO DE DADOS**

**Aluno: Andre Parron Aranda**

**Token: 1**

**Questão 1)**

CREATE DATABASE andre1;

CREATE TABLE CLIENTE(

IDCliente bigserial,

Nome varchar(150) ,

Email varchar(150),

Login varchar(150),

Senha varchar(150),

Ativo char(1) ,

PRIMARY KEY(IDCliente)

);

CREATE TABLE ANDRE(

IDAndre bigserial,

IDcliente bigserial,

Datas date ,

ValorTotal decimal(10,2) ,

FormaPagamento char(1) ,

PRIMARY KEY(IDAndre),

FOREIGN KEY(IDCliente) REFERENCES CLIENTE(IDCLiente)

);

CREATE TABLE ARANDA(

IDAranda bigserial,

Nome varchar(150),

Email varchar(150),

Telefone varchar(150),

PRIMARY KEY(IDAranda)

);

CREATE TABLE FABRICANTE(

IDFabricante serial,

Nome varchar(150) ,

Site varchar(150),

PRIMARY KEY (IDFabricante)

);

CREATE TABLE CARRO(

IDCarro serial,

IDAranda bigserial,

IDFabricante serial,

Modelo varchar(150),

Chassi varchar(150) ,

Ano date ,

Portas int ,

PRIMARY KEY(IDCarro),

FOREIGN KEY(IDAranda) REFERENCES ARANDA(IDAranda),

FOREIGN KEY(IDFabricante) REFERENCES FABRICANTE(IDFabricante)

);

CREATE TABLE CARROS\_LOCADOS(

IDCarrosLocados bigserial,

IDAndre bigserial,

IDCarro serial,

DataRetirada date,

DataDevolucao date,

DataDevolvido date,

Valor decimal(10,2),

Ocorrencia text,

PRIMARY KEY (IDCarrosLocados),

FOREIGN KEY (IDAndre) REFERENCES ANDRE(IDAndre),

FOREIGN KEY (IDCarro) REFERENCES CARRO(IDCarro)

);

**Questão 2)**

INSERT INTO CLIENTE (Nome,Email,Login,Senha,Ativo)

VALUES

('Blaze Bauer','mollis.lectus@yahoo.org','ChristopherNunez',1419,1),

('Aretha Kidd','sapien.cursus@outlook.org','EchoPickett',8296,1),

('Dominic Nunez','lacinia.orci.consectetuer@aol.couk','CaraByers',6530,0),

('Arthur Parks','ligula@outlook.net','MichaelMejia',5610,1),

('Salvador Hill','nunc.quisque@hotmail.ca','AlexandraVincent',8304,0),

('Lenore Mullen','mauris.sit@protonmail.net','ValentineCole',6476,0),

('Maia Burt','ut.aliquam@outlook.ca','ThorGriffin',4808,1),

('Kim Holland','montes.nascetur.ridiculus@aol.edu','JudahKeith',8053,0),

('Calista Yang','mus.aenean.eget@yahoo.couk','NeilRusso',6307,1),

('Jaden Wolf','amet.consectetuer@icloud.edu','JudithAllison',8119,1);

INSERT INTO ANDRE (datas,ValorTotal,FormaPagamento)

VALUES

('2022,4,16','7467.99','D'),

('2023,3,9','531.36','P'),

('2022,11,27','293.72','D'),

('2023,7,5','534.30','P'),

('2023,12,11','4282.00','C'),

('2022,9,19','1036.76','P'),

('2023,10,17','2016.75','P'),

('2022,7,4','2416.14','P'),

('2023,12,18','435.81','D'),

('2024,1,30','634.95','D');

INSERT INTO ARANDA (Nome,Email,Telefone)

VALUES

('Joseph Thomas','pede.suspendisse@protonmail.net','52 95379-2123'),

('Bradley Pittman','mollis.phasellus@outlook.edu','38 91513-2313'),

('Leandra Spencer','dui.in@icloud.org','44 99357-6287'),

('Zelda Stephenson','vel.venenatis.vel@outlook.couk','36 92980-3481'),

('Brennan Oneal','posuere@icloud.couk','06 95829-6914'),

('Cheyenne Austin','a.magna@hotmail.net','73 94861-6261'),

('Lana Terry','erat.volutpat@hotmail.couk','12 95769-4883'),

('Eugenia Ingram','diam.dictum@yahoo.ca','72 92511-0633'),

('Cullen Brennan','dui@aol.ca','68 93141-5926'),

('Lionel Atkinson','vitae@google.com','77 97364-0703');

INSERT INTO FABRICANTE (Nome,Site)

VALUES

('Cailin Robinson','http://pinterest.com'),

('Paul Turner','https://whatsapp.com'),

('Micah Mcmillan','http://youtube.com'),

('Anne Finley','https://reddit.com'),

('Bruno Gilliam','https://walmart.com'),

('Cara Mcfarland','http://zoom.us'),

('Marvin Bates','http://ebay.com'),

('Ariana Clay','http://youtube.com'),

('Buckminster Ramos','https://facebook.com'),

('Randall Davis','http://whatsapp.com');

INSERT INTO CARRO (modelo,chassi,ano,portas)

VALUES

('Ford','15011092','2022,5,28','3'),

('Volkswagen','13201808','2023,6,1','2'),

('Volkswagen','17772275','2023,10,6','4'),

('Honda','14899452','2023,2,12','4'),

('Chevrolet','17677461','2024,3,7','3'),

('Volkswagen','11061681','2022,10,30','3'),

('Fiat','10484595','2023,8,6','3'),

('Hyundai','16040773','2023,2,10','3'),

('Honda','10129317','2022,5,22','2'),

('Renault','12069375','2024,2,12','2');

INSERT INTO CARROS\_LOCADOS(DataRetirada,DataDevolucao,DataDevolvido,Valor,Ocorrencia)

VALUES

('2023,4,13','2023,5,23','2023,8,4','31630.55','erat nonummy ultricies ornare'),

('2022,7,19','2023,1,23','2023,5,7','1783.35','venenatis vel, faucibus id, libero.'),

('2023,4,13','2022,9,29','2024,2,16','11098.59','Cras eget nisi dictum augue malesuada malesuada.'),

('2023,9,8','2022,4,23','2022,9,3','13369.76','neque non quam. Pellentesque habitant morbi '),

('2023,12,26','2023,5,1','2022,8,6','39952.72','Suspendisse tristique neque venenatis lacus.'),

('2022,4,27','2023,1,25','2023,8,1','37935.66','augue ac ipsum. Phasellus vitae mauris '),

('2023,1,24','2022,5,1','2022,12,16','33838.09','Duis dignissim tempor arcu. Vestibulum'),

('2023,10,23','2024,3,9','2023,1,30','6305.85','Pellentesque habitant morbi tristique '),

('2024,3,24','2022,11,29','2022,11,17','27016.88','imperdiet ullamcorper. Duis at lacus.'),

('2022,12,27','2024,2,19','2023,6,13','12737.82','porttitor vulputate, posuere vulputate,');

**QUESTÃO 3)**

CREATE INDEX ida\_andre ON CARROS\_LOCADOS(IDCarrosLocados);

CREATE INDEX idb\_aranda ON FABRICANTE (IDFabricante) WHERE IDFabricante > 1000;

CREATE INDEX idc\_2\_andre ON CARRO USING hash (IDCarro);

CREATE EXTENSION pg\_trgm;

CREATE INDEX idd\_2\_aranda ON CLIENTE USING gin (Login gin\_trgm\_ops, Senha gin\_trgm\_ops);

**QUESTÃO 4)**

CREATE MATERIALIZED VIEW view\_q4 AS

SELECT CLIENTE.Nome AS Nome\_Locador, CARRO.Modelo, CARROS\_LOCADOS.Valor

FROM CARROS\_LOCADOS

JOIN ANDRE ON ANDRE.IDAndre = CARROS\_LOCADOS.IDAndre

JOIN CLIENTE ON CLIENTE.IDCliente = ANDRE.IDCliente

JOIN CARRO ON CARRO.IDCarro = CARROS\_LOCADOS.IDCarro

WHERE CARROS\_LOCADOS.DataRetirada = CURRENT\_DATE

ORDER BY CARROS\_LOCADOS.IDCarrosLocados DESC LIMIT 10;

**QUESTÃO 5)**

1. REFRESH MATERIALIZED VIEW view\_q4;
2. REINDEX DATABASE andre1;

**QUESTÃO 6)**

**A)**

CREATE TABLE andreautenticacao(

IDCliente bigserial PRIMARY KEY REFERENCES CLIENTE(IDCliente),

Login varchar(150),

Senha varchar(150)

);

**B)**

CREATE OR REPLACE FUNCTION andre() RETURNS VOID AS $$

BEGIN

INSERT INTO andreautenticacao (IDCliente,Login,Senha) SELECT IDCliente,Login,Senha

FROM CLIENTE;

END;

$$ LANGUAGE plpgsql;

**C)**

CREATE OR REPLACE PROCEDURE alterar\_cliente()

language plpgsql as $$

begin

ALTER TABLE CLIENTE DROP COLUMN Login,DROP COLUMN Senha;

end; $$