Alunos: Leonardo Dias Pertuzzatti e Keanu Lelles Diniz da Silva
Matriculas: 123340991 e 123048133

1.
```
SELECT * FROM Categories;
```

2.
```
SELECT FirstName, LastName, BirthDate FROM Employees WHERE YEAR(BirthDate) > 1950;
```

3.
```
SELECT CustomerName, ContactName, Address FROM Customers WHERE Country = 'Brazil';
```

4.
```
SELECT CustomerName, ContactName, Address FROM Customers WHERE Country NOT IN ('Brazil', 'Germany', 'France');
```

5.
```
SELECT ProductName, Price FROM Products WHERE Price > 205.0 AND Price < 305.0;
```

6.
```
SELECT CustomerName, ContactName, Address FROM Customers WHERE CustomerName LIKE 'B%' OR CustomerName LIKE 'R%';
```

7.
```
SELECT City FROM Suppliers;
```

8.
```
SELECT ProductName, Price FROM Products ORDER BY Price DESC;
```

9.
```
SELECT COUNT(DISTINCT Country) as "Y", COUNT(DISTINCT City) as "X" FROM Customers;
```

10.
```
SELECT ProductName, MIN(Price) as "Preco Minimo", MAX(Price) as "Preco Maximo", ROUND(AVG(Price), 2) as "Preco Medio" FROM Products GROUP BY ProductID;
```

11.
```
SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome Completo", YEAR(NOW()) - YEAR(BirthDate) as "Idade" FROM Employees;
```

12.
```
SELECT ProductName, Unit,
   CASE
   WHEN Price <= 10 THEN "Preco Baixo"
   WHEN Price <= 49.99 THEN "Preco Alto"
   ELSE "Preco Elevado"
   END as "Faixa de Preco";
```

13.
Ranking por quantidade de cliente das cidades:
```
SELECT City, COUNT(DISTINCT CustomerName) as "Quantidade de Clientes (Cidade)"
FROM Customers GROUP BY City ORDER BY COUNT(DISTINCT CustomerName) DESC;
```

Ranking por quantidade de cliente dos países:
```
SELECT Country, COUNT(DISTINCT CustomerName) as "Quantidade de Clientes (Pais)"
FROM Customers GROUP BY Country ORDER BY COUNT(DISTINCT CustomerName)
DESC;
```

14.
```
SELECT CustomerName, ContactName, Address FROM Customers as C INNER JOIN Orders
as O ON C.CustomerID = O.CustomerID WHERE YEAR(O.OrderDate) = 1998;
```

15.
```
SELECT Country FROM Customers as C INNER JOIN Orders as O ON C.CustomerID =
O.CustomerID WHERE YEAR(O.OrderDate) = 1998 AND MONTH(O.OrderDate) = 2;
```

16.
Clientes que compraram mais de 10 produtos diferentes:
```
SELECT CustomerName, COUNT(DISTINCT ProductID) as "Quantidade de Produtos Distintos
Comprados" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP
BY CustomerName HAVING COUNT(DISTINCT ProductID) > 10;
```

Clientes que compraram mais de 100 produtos (repetidos ou não):
```
SELECT CustomerName, COUNT(ProductID) as "Quantidade de Produtos Comprados" FROM
Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY CustomerName
HAVING COUNT(ProductID) > 100;
```

17.
```
SELECT CategoryName, MIN(Price) as "Preco Minimo", MAX(Price) as "Preco Maximo"
FROM Products NATURAL JOIN Categories GROUP BY CategoryName;
```

18.
```
SELECT DISTINCT CONCAT_WS(" ", FirstName, LastName) as "Nome Completo", BirthDate
FROM Employees NATURAL JOIN Orders INNER JOIN Customers ON Orders.CustomerID =
Customers.CustomerID AND Country = "Brazil";
```

19.
SELECT ProductName, COUNT(ProductName) as "Quantidade Comprada por Brasileiros" FROM Products NATURAL JOIN OrderDetails NATURAL JOIN Orders INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID AND Country = "Brazil" GROUP BY ProductName ORDER BY COUNT(ProductName) DESC;

20.
SELECT ProductName, OrderDate FROM Products NATURAL JOIN OrderDetails as OD INNER JOIN Orders as O ON OD.OrderID = O.OrderID AND YEAR(OrderDate) = 1997 INNER JOIN Customers as C ON O.CustomerID = C.CustomerID AND Country = "USA";

21.
Cliente que mais comprou em 1996:
SELECT CustomerName, SUM(Quantity) as "Quantidade Total", SUM(Price) as "Custo Total" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products WHERE YEAR(OrderDate) = 1996 GROUP BY CustomerID ORDER BY SUM(Quantity) DESC, SUM(Price) DESC LIMIT 1;

Funcionário que mais atendeu o cliente que mais comprou em 1996:
SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", COUNT(OrderID) as "Total de Atendimentos" FROM Employees NATURAL JOIN Orders WHERE YEAR(OrderDate) = 1996 AND CustomerID = (SELECT CustomerID FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products WHERE YEAR(OrderDate) = 1996 GROUP BY CustomerID ORDER BY SUM(Quantity) DESC, SUM(Price) DESC LIMIT 1) ORDER BY COUNT(OrderID) DESC LIMIT 1;

22.
SELECT DISTINCT C1.CustomerID, C1.CustomerName, C1.City FROM Customers AS C1 INNER JOIN Customers AS C2 ON C1.City = C2.City AND C1.CustomerID <> C2.CustomerID ORDER BY C1.City, C1.CustomerName;

23.
SELECT DISTINCT C.CustomerID, C.CustomerName FROM Customers AS C LEFT JOIN Orders AS O ON C.CustomerID = O.CustomerID WHERE O.OrderID IS NULL ORDER BY C.CustomerName;

24.
SELECT FirstName, LastName FROM Employees NATURAL LEFT JOIN Orders WHERE CustomerID IS NULL;

25.

SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", COUNT(Orders.EmployeeID) as "Contagem de Pedidos" FROM Employees NATURAL JOIN Orders GROUP BY Orders.EmployeeID HAVING COUNT(Orders.EmployeeID) < 50;

26.
SELECT DISTINCT CustomerName, SupplierName, C.Country FROM Customers as C NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products as P INNER JOIN Suppliers as S ON P.SupplierID = S.SupplierID AND C.Country = S.Country ORDER BY CustomerName;

27.
SELECT DISTINCT CustomerName, SupplierName, P.ProductName FROM Customers as C NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products as P INNER JOIN Suppliers as S ON P.SupplierID = S.SupplierID AND C.Country = S.Country AND C.Country = "USA" ORDER BY CustomerName;

28.
SELECT CategoryName, SUM(Quantity) as "Quantidade", SUM(Price) as "Valor Total" FROM OrderDetails NATURAL JOIN Products NATURAL JOIN Categories GROUP BY CategoryName;

29..
SELECT City, SUM(Quantity) as "Quantidade", SUM(Price) as "Valor Total" FROM OrderDetails NATURAL JOIN Orders NATURAL JOIN Customers NATURAL JOIN Products GROUP BY City ORDER BY SUM(Quantity) DESC, SUM(Price) DESC;

30. SELECT CustomerName, OrderDate FROM Customers NATURAL LEFT JOIN Orders WHERE OrderID IS NULL;

31.
<u>Top 10 por quantidade de pedidos:</u>
SELECT CustomerName, COUNT(OrderDate) as "Quantidade de Pedidos" FROM Customers NATURAL JOIN Orders GROUP BY Orders.CustomerID ORDER BY COUNT(OrderDate) DESC LIMIT 10;

<u>Top 10 por quantidade de produtos comprados:</u>
SELECT CustomerName, SUM(Quantity) as "Quantidade de Produtos Comprados" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY Orders.CustomerID ORDER BY SUM(Quantity) DESC LIMIT 10;

<u>Top 10 por valor total de compras:</u>
SELECT CustomerName, SUM(Price) as "Valor Total de Compras" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products GROUP BY Orders.CustomerID ORDER BY SUM(Price) DESC LIMIT 10;

32. Top 10 por quantidade de pedidos:
SELECT Country, COUNT(OrderDate) as "Quantidade de Pedidos" FROM Customers NATURAL JOIN Orders GROUP BY Country ORDER BY COUNT(OrderDate) DESC LIMIT 10;

Top 10 por quantidade de produtos comprados:
SELECT Country, SUM(Quantity) as "Quantidade de Produtos Comprados" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY Country ORDER BY SUM(Quantity) DESC LIMIT 10;

Top 10 por valor total de compras:
SELECT Country, SUM(Price) as "Valor Total de Compras" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products GROUP BY Country ORDER BY SUM(Price) DESC LIMIT 10;

Top 10 por quantidade de pedidos (separado por ano):
SELECT Country, YEAR(OrderDate) as "Ano", COUNT(OrderDate) as "Quantidade de Pedidos" FROM Customers NATURAL JOIN Orders GROUP BY Country, YEAR(OrderDate) ORDER BY COUNT(OrderDate) DESC LIMIT 10;

Top 10 por quantidade de produtos comprados (separado por ano):
SELECT Country, YEAR(OrderDate) as "Ano", SUM(Quantity) as "Quantidade de Produtos Comprados" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY Country, YEAR(OrderDate) ORDER BY SUM(Quantity) DESC LIMIT 10;

Top 10 por valor total de compras (separado por ano):
SELECT Country, YEAR(OrderDate) as "Ano", SUM(Price) as "Valor Total de Compras" FROM Customers NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products GROUP BY Country, YEAR(OrderDate) ORDER BY SUM(Price) DESC LIMIT 10;

33.
Top 10 pela quantidade de atendimentos:
SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", COUNT(OrderDate) as "Quantidade de Atendimentos" FROM Employees NATURAL JOIN Orders GROUP BY EmployeeID ORDER BY COUNT(OrderDate) DESC LIMIT 10;

Top 10 pela quantidade total de produtos:
SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", SUM(Quantity) as "Quantidade de Produtos dos Atendimentos" FROM Employees NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY EmployeeID ORDER BY SUM(Quantity) DESC LIMIT 10;

Top 10 pelo valor total:

SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", SUM(Price) as "Valor Total dos Atendimentos" FROM Employees NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products GROUP BY EmployeeID ORDER BY SUM(Price) DESC LIMIT 10;

Idade do que mais vendeu (pela quantidade de atendimentos):
SELECT YEAR(NOW()) - YEAR(BirthDate) as "Idade", COUNT(OrderDate) as "Quantidade de Atendimentos" FROM Employees NATURAL JOIN Orders GROUP BY YEAR(NOW()) - YEAR(BirthDate) ORDER BY COUNT(OrderDate) DESC LIMIT 10;

Idade do que mais vendeu (pela quantidade total de produtos):
SELECT YEAR(NOW()) - YEAR(BirthDate) as "Idade", SUM(Quantity) as "Quantidade de Produtos dos Atendimentos" FROM Employees NATURAL JOIN Orders NATURAL JOIN OrderDetails GROUP BY YEAR(NOW()) - YEAR(BirthDate) ORDER BY SUM(Quantity) DESC LIMIT 10;

Idade do que mais vendeu (pelo valor total):
SELECT YEAR(NOW()) - YEAR(BirthDate) as "Idade", SUM(Price) as "Valor Total dos Atendimentos" FROM Employees NATURAL JOIN Orders NATURAL JOIN OrderDetails NATURAL JOIN Products GROUP BY YEAR(NOW()) - YEAR(BirthDate) ORDER BY SUM(Price) DESC LIMIT 10;

34.
Top 10 pelo número de pedidos:
SELECT ProductName, COUNT(OrderDetailID) as "Quantidade de Pedidos" FROM Products NATURAL JOIN OrderDetails GROUP BY Products.ProductID ORDER BY COUNT(OrderDetailID) DESC LIMIT 10;

Top 10 pelo valor total:
SELECT ProductName, SUM(Price) as "Valor Total" FROM Products NATURAL JOIN OrderDetails GROUP BY Products.ProductID ORDER BY SUM(Price) DESC LIMIT 10;

Top 10 pelo número de unidades:
SELECT ProductName, SUM(Quantity) as "Quantidade Total Vendida" FROM Products NATURAL JOIN OrderDetails GROUP BY Products.ProductID ORDER BY SUM(Quantity) DESC LIMIT 10;

35.
Frentistas que entregam em todos os países (se houver):
SELECT DISTINCT ShipperName FROM Customers NATURAL LEFT JOIN Orders NATURAL LEFT JOIN Shippers WHERE ShipperName IS NOT NULL GROUP BY Country, ShipperName;

Frentista(s) que entregam no maior número de países:
SELECT ShipperName, COUNT(DISTINCT Country) as "Numero de Paises" FROM Shippers NATURAL JOIN Orders NATURAL JOIN Customers GROUP BY Orders.ShipperID;

36. SELECT CONCAT_WS(" ", FirstName, LastName) as "Nome", BirthDate FROM Employees WHERE BirthDate > (SELECT BirthDate FROM Employees WHERE FirstName = "Margaret" AND LastName = "Peacock");

37. SELECT OrderId, OrderDate FROM Orders WHERE OrderDate > (SELECT MAX(OrderDate) FROM Orders NATURAL JOIN Employees WHERE FirstName = "Anne" AND LastName = "Dodsworth");

38. SELECT DISTINCT CONCAT_WS(" ", FirstName, LastName) as "Nome" FROM Employees NATURAL JOIN Orders WHERE CustomerID IN (SELECT DISTINCT CustomerID FROM Customers NATURAL JOIN Orders NATURAL JOIN Employees WHERE FirstName = "Margaret" AND LastName = "Peacock");

39. SELECT ProductName, CONCAT("$", SUM(Price)) as "Total Vendido", CONCAT(ROUND(SUM(Price) / S.PrecoTotal * 100, 2), "%") as "Porcentagem do Total Anual", YEAR(OrderDate) as "Ano" FROM Products NATURAL JOIN OrderDetails NATURAL JOIN Orders INNER JOIN (SELECT YEAR(OrderDate) as "Ano", SUM(Price) as "PrecoTotal" FROM Products NATURAL JOIN OrderDetails NATURAL JOIN Orders GROUP BY YEAR(OrderDate)) as S ON S.Ano = YEAR(OrderDate) GROUP BY ProductID, YEAR(OrderDate) ORDER BY YEAR(OrderDate), (SUM(Price) / S.PrecoTotal * 100) DESC;

40. SELECT ProductName, SUM(Quantity) as "Total de Unidades", CONCAT(ROUND(SUM(Quantity) / Sub.Total * 100, 2), "%") as "Porcentagem do Total", S.Country FROM Products NATURAL JOIN OrderDetails NATURAL JOIN Suppliers as S INNER JOIN (SELECT Country, SUM(Quantity) as "Total" FROM Suppliers NATURAL JOIN Products NATURAL JOIN OrderDetails GROUP BY Country ORDER BY Country) as Sub ON Sub.Country = S.Country GROUP BY ProductID, Country ORDER BY Country, (SUM(Quantity) / Sub.Total * 100) DESC;