Collège communautaire du Nouveau-Brunswick - Bathurst

**NWIND**

**Travail présenté à**

Monsieur Joel Boudreau

**Enseignant,** DATA-1052

**par**

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Bathurst**,** le12 Novembre 2024

**Nwind Partie 1**

**createTableNwind.sql**

**-- Categories**

CREATE TABLE Categories(

CategoryID NUMBER,

CategoryName VARCHAR2(40)

CONSTRAINT Categories\_CategoryName\_nn NOT NULL,

CONSTRAINT Categories\_pk PRIMARY KEY (CategoryID)

);

**-- Suppliers**

CREATE TABLE Suppliers(

SupplierID NUMBER,

SupplierName VARCHAR2(60)

CONSTRAINT Suppliers\_SupplierName\_uk UNIQUE

CONSTRAINT Suppliers\_SupplierName\_nn NOT NULL,

City VARCHAR2(60)

CONSTRAINT Suppliers\_City\_nn NOT NULL,

PostalCode VARCHAR(7),

Country VARCHAR2(60)

CONSTRAINT Suppliers\_Country\_chk CHECK (Country IN ('Canada','France','Chine')),

HomePage VARCHAR2(120),

CONSTRAINT Suppliers\_pk PRIMARY KEY (SupplierID)

);

**-- Shippers**

CREATE TABLE Shippers(

ShipperID NUMBER,

CompanyName VARCHAR2(60)

CONSTRAINT shippers\_CompanyName\_nn NOT NULL,

CONSTRAINT Shippers\_pk PRIMARY KEY(ShipperID)

);

**-- Customers**

CREATE TABLE Customers(

CustomerID NUMBER,

CustomerName VARCHAR2(75)

CONSTRAINT Customers\_CusTomerName\_nn NOT NULL,

City VARCHAR2(60)

CONSTRAINT Customers\_City\_nn NOT NULL,

PostalCode VARCHAR2(7)

CONSTRAINT Customers\_PostalCode\_nn NOT NULL,

Country VARCHAR2(60)

CONSTRAINT Customers\_Country\_nn NOT NULL,

CONSTRAINT Customers\_pk PRIMARY KEY (CustomerID)

);

**-- Employees**

CREATE TABLE Employees(

EmployeeID NUMBER,

LastName VARCHAR2(40)

CONSTRAINT Employees\_LastName\_nn NOT NULL,

FirstName VARCHAR2(40)

CONSTRAINT Employees\_FirstName\_nn NOT NULL,

Title VARCHAR2(25)

CONSTRAINT Employees\_Title\_nn NOT NULL,

Birthdate DATE

CONSTRAINT Employees\_Birthdate\_nn NOT NULL

CONSTRAINT Employees\_Birthdate\_chk CHECK(Birthdate < TO\_DATE('01-JAN-2006','DD-MON-YYYY')),

HireDate DATE

CONSTRAINT Employees\_HireDate\_nn NOT NULL,

CONSTRAINT Employees\_HireDate\_chk CHECK(HireDate > BirthDate),

City VARCHAR2(60)

CONSTRAINT Employees\_City\_nn NOT NULL,

PostalCode VARCHAR2(7)

CONSTRAINT Employees\_PostalCode\_nn NOT NULL,

Country VARCHAR2(60)

DEFAULT 'Canada',

ReportsTo NUMBER,

CONSTRAINT Employees\_pk PRIMARY KEY (EmployeeID),

CONSTRAINT Employees\_ReportsTo\_fk FOREIGN KEY (ReportsTo) REFERENCES Employees(EmployeeID) ON DELETE CASCADE

);

**-- Products**

CREATE TABLE Products(

ProductID NUMBER,

ProductName VARCHAR2(80)

CONSTRAINT Products\_ProductName\_nn NOT NULL,

CategoryID NUMBER

CONSTRAINT Products\_CategoryID\_nn NOT NULL,

SupplierID NUMBER

CONSTRAINT Products\_SupplierID\_nn NOT NULL,

QuantityPerUnit VARCHAR2(75),

UnitPrice NUMBER

CONSTRAINT Products\_UnitPrice\_nn NOT NULL

CONSTRAINT Products\_UnitPrice\_chk CHECK(UnitPrice > 0.10),

UnitsInStock NUMBER

CONSTRAINT Products\_UnitsInStock\_nn NOT NULL,

ReorderLevel NUMBER

DEFAULT 5

CONSTRAINT Products\_ReorderLevel\_chk CHECK(ReorderLevel > 0),

Discontinued CHAR(1)

CONSTRAINT Product\_Discontinued\_chk CHECK(discontinued IN ('O', 'N')),

CONSTRAINT Products\_pk PRIMARY KEY (ProductID),

CONSTRAINT Products\_CategoryID\_fk FOREIGN KEY (CategoryID) REFERENCES Categories(CategoryID) ON DELETE CASCADE,

CONSTRAINT Products\_SupplierID\_fk FOREIGN KEY (SupplierID) REFERENCES Suppliers(SupplierID) ON DELETE CASCADE,

CONSTRAINT Products\_UnitsInStock\_chk CHECK (UnitsInStock >= ReorderLevel)

);

**-- Orders**

CREATE TABLE Orders (

OrderID NUMBER,

CustomerID NUMBER

CONSTRAINT Orders\_CustomerID\_nn NOT NULL,

EmployeeID NUMBER

CONSTRAINT Orders\_EmployeeID\_nn NOT NULL,

OrderDate DATE DEFAULT SYSDATE

CONSTRAINT Orders\_OrderDate\_nn NOT NULL,

RequiredDate DATE,

ShippedDate DATE,

ShipVia NUMBER

CONSTRAINT Orders\_ShipVia\_nn NOT NULL,

Freight NUMBER

CONSTRAINT Orders\_Freight\_chk CHECK(Freight >= 30 AND Freight < 800),

CONSTRAINT Orders\_pk PRIMARY KEY (OrderID),

CONSTRAINT Orders\_CustomerID\_fk FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID) ON DELETE CASCADE,

CONSTRAINT Orders\_EmployeeID\_fk FOREIGN KEY (EmployeeID) REFERENCES Employees(EmployeeID) ON DELETE CASCADE,

CONSTRAINT Orders\_ShipVia\_fk FOREIGN KEY (ShipVia) REFERENCES Shippers(ShipperID) ON DELETE CASCADE,

CONSTRAINT Orders\_RequiredDate\_chk CHECK (RequiredDate > OrderDate),

CONSTRAINT Orders\_ShippedDate\_chk CHECK (ShippedDate < RequiredDate)

);

**-- OrdersDetails**

CREATE TABLE OrdersDetails (

OrderID NUMBER,

ProductID NUMBER,

UnitPrice NUMBER

CONSTRAINT OrdersDetails\_UnitPrice\_nn NOT NULL

CONSTRAINT OrdersDetails\_UnitPrice\_chk CHECK(UnitPrice > 0.25),

Quantity NUMBER

CONSTRAINT OrdersDetailsQuantity\_nn NOT NULL

CONSTRAINT OrdersDetailsQuantity\_chk CHECK (Quantity > 0),

Discount NUMBER

CONSTRAINT OrdersDetailsDiscount\_chk CHECK (Discount >= 5 AND Discount <= 75),

CONSTRAINT OrdersDetails\_pk PRIMARY KEY (OrderID, ProductID),

CONSTRAINT OrdersDetails\_OrderID\_fk FOREIGN KEY (OrderID) REFERENCES Orders(OrderID) ON DELETE CASCADE,

CONSTRAINT OrdersDetails\_ProductID\_fk FOREIGN KEY (ProductID) REFERENCES Products(ProductID) ON DELETE CASCADE

);

**dropTableNwind.sql**

DROP TABLE OrdersDetails;

DROP TABLE Orders;

DROP TABLE Products;

DROP TABLE Employees;

DROP TABLE Customers;

DROP TABLE Shippers;

DROP TABLE Suppliers;

DROP TABLE Categories;

**Nwind Partie 2**

**createSeqNwind.sql**

**-- Categories**

CREATE SEQUENCE CategoriesID\_seq

START WITH 1

INCREMENT BY 1

MAXVALUE 200;

**-- Customers**

CREATE SEQUENCE CustomerID\_seq

START WITH 100

INCREMENT BY 5

MAXVALUE 5000;

**-- Employees**

CREATE SEQUENCE EmployeeID\_seq

START WITH 1

INCREMENT BY 1

MAXVALUE 555;

**-- Orders**

CREATE SEQUENCE OrderID\_seq

START WITH 1

MAXVALUE 99999;

**-- Products**

CREATE SEQUENCE productID\_seq

START WITH 10

INCREMENT BY 5

MAXVALUE 10000;

**-- Shippers**

CREATE SEQUENCE ShipperID\_seq

START WITH 10

INCREMENT BY 10

MAXVALUE 2000;

**-- Suppliers**

CREATE SEQUENCE SupplierID\_seq

START WITH 1

INCREMENT BY 1

MAXVALUE 400;

**dropSeqNwind.sql**

DROP SEQUENCE CategoriesID\_seq;

DROP SEQUENCE CustomerID\_seq;

DROP SEQUENCE EmployeeID\_seq;

DROP SEQUENCE OrderID\_seq;

DROP SEQUENCE productID\_seq;

DROP SEQUENCE ShipperID\_seq;

DROP SEQUENCE SupplierID\_seq;

**Nwind Partie 3**

**insertNwind.sql**

**-- Categories**

INSERT INTO Categories (CategoryID, CategoryName)

VALUES (CategoriesID\_seq.NEXTVAL, 'electronique');

INSERT INTO Categories (CategoryID, CategoryName)

VALUES (CategoriesID\_seq.NEXTVAL, 'Vetements');

INSERT INTO Categories (CategoryID, CategoryName)

VALUES (CategoriesID\_seq.NEXTVAL, 'Alimentation');

**-- Customers**

INSERT INTO Customers (CustomerID, CustomerName, City, PostalCode, Country)

VALUES (CustomerID\_seq.NEXTVAL, 'Jean Dupont', 'Paris', '75001', 'France');

INSERT INTO Customers (CustomerID, CustomerName, City, PostalCode, Country)

VALUES (CustomerID\_seq.NEXTVAL, 'Marie Martin', 'Montreal', 'H2X 1Y9', 'Canada');

INSERT INTO Customers (CustomerID, CustomerName, City, PostalCode, Country)

VALUES (CustomerID\_seq.NEXTVAL, 'David Lee', 'New York', '10001', 'USA');

**-- Employees**

INSERT INTO Employees (EmployeeID, LastName, FirstName, Title, BirthDate, HireDate, City, PostalCode, Country, ReportsTo)

VALUES (EmployeeID\_seq.NEXTVAL, 'Doe', 'John', 'Directeur', TO\_DATE('12-04-1975', 'DD-MM-YYYY'), TO\_DATE('01-01-2005', 'DD-MM-YYYY'), 'Paris', '75001', 'France',1);

INSERT INTO Employees (EmployeeID, LastName, FirstName, Title, BirthDate, HireDate, City, PostalCode, Country, ReportsTo)

VALUES (EmployeeID\_seq.NEXTVAL, 'Morlet', 'Christine', 'Vendeuse', TO\_DATE('25-11-1982', 'DD-MM-YYYY'), TO\_DATE('15-03-2018', 'DD-MM-YYYY'), 'Lyon', '69002', 'France', 1);

INSERT INTO Employees (EmployeeID, LastName, FirstName, Title, BirthDate, HireDate, City, PostalCode, Country, ReportsTo)

VALUES (EmployeeID\_seq.NEXTVAL, 'Legarer', 'Pierre', 'Developpeur', TO\_DATE('08-07-1990', 'DD-MM-YYYY'), TO\_DATE('01-11-2015', 'DD-MM-YYYY'), 'Montreal', 'H2X 1Y9', 'Canada', 1);

**-- Orders**

INSERT INTO Orders (OrderID, CustomerID, EmployeeID, OrderDate, RequiredDate, ShippedDate, ShipVia, Freight)

VALUES (OrderID\_seq.NEXTVAL, 100, 1, TO\_DATE('28-04-2024', 'DD-MM-YYYY'), TO\_DATE('05-05-2024', 'DD-MM-YYYY'), TO\_DATE('02-05-2024', 'DD-MM-YYYY'), 10, 30);

INSERT INTO Orders (OrderID, CustomerID, EmployeeID, OrderDate, RequiredDate, ShippedDate, ShipVia, Freight)

VALUES (OrderID\_seq.NEXTVAL, 105, 2, TO\_DATE('05-05-2024', 'DD-MM-YYYY'), TO\_DATE('10-05-2024', 'DD-MM-YYYY'), TO\_DATE('05-05-2024', 'DD-MM-YYYY'), 20, 80);

INSERT INTO Orders (OrderID, CustomerID, EmployeeID, OrderDate, RequiredDate, ShippedDate, ShipVia, Freight)

VALUES (OrderID\_seq.NEXTVAL, 110, 3, TO\_DATE('20-04-2024', 'DD-MM-YYYY'), TO\_DATE('10-05-2024', 'DD-MM-YYYY'), TO\_DATE('01-03-2024', 'DD-MM-YYYY'), 30, 120);

**-- OrdersDetails**

INSERT INTO OrdersDetails (OrderID, ProductID, UnitPrice, Quantity, Discount)

VALUES (1, 10, 599.99, 2, 10);

INSERT INTO OrdersDetails (OrderID, ProductID, UnitPrice, Quantity, Discount)

VALUES (2, 15, 799.99, 3, 15);

INSERT INTO OrdersDetails (OrderID, ProductID, UnitPrice, Quantity, Discount)

VALUES (3, 20, 24.99, 5, 5);

**-- Products**

INSERT INTO Products (ProductID, ProductName, CategoryID, SupplierID, QuantityPerUnit, UnitPrice, UnitsInStock, ReorderLevel, Discontinued)

VALUES (ProductID\_seq.NEXTVAL, 'Television 4K 55 pouces', 1, 1, '1 unite par boite', 599.99, 20, 5, 'O');

INSERT INTO Products (ProductID, ProductName, CategoryID, SupplierID, QuantityPerUnit, UnitPrice, UnitsInStock, ReorderLevel, Discontinued)

VALUES (ProductID\_seq.NEXTVAL, 'Smartphone dernier cri', 2, 2, '1 unite par boite', 799.99, 15, 10, 'N');

INSERT INTO Products (ProductID, ProductName, CategoryID, SupplierID, QuantityPerUnit, UnitPrice, UnitsInStock, ReorderLevel, Discontinued)

VALUES (ProductID\_seq.NEXTVAL, 'T-shirt coton bio', 3, 3, '1 piece par emballage', 24.99, 50, 10, 'N');

**-- Shippers**

INSERT INTO Shippers (ShipperID, CompanyName)

VALUES (ShipperID\_seq.NEXTVAL, 'FedEx');

INSERT INTO Shippers (ShipperID, CompanyName)

VALUES (ShipperID\_seq.NEXTVAL, 'UPS');

INSERT INTO Shippers (ShipperID, CompanyName)

VALUES (ShipperID\_seq.NEXTVAL, 'DHL');

**-- Suppliers**

INSERT INTO Suppliers (SupplierID, SupplierName, City, PostalCode, Country, HomePage)

VALUES (SupplierID\_seq.NEXTVAL, 'Thales Group', 'Paris', '75015', 'France', 'https://www.thalesgroup.com');

INSERT INTO Suppliers (SupplierID, SupplierName, City, PostalCode, Country, HomePage)

VALUES (SupplierID\_seq.NEXTVAL, 'Canada Goose', 'Toronto', 'M6K 3J1', 'Canada', 'https://www.canadagoose.com');

INSERT INTO Suppliers (SupplierID, SupplierName, City, PostalCode, Country, HomePage)

VALUES (SupplierID\_seq.NEXTVAL, 'WH Group', 'Hong Kong', '999077', 'Chine', 'https://www.wh-group.com');

**deleteNwind.sql**

DELETE FROM OrdersDetails;

DELETE FROM Orders;

DELETE FROM Employees;

DELETE FROM Customers;

DELETE FROM Products;

DELETE FROM Categories;

DELETE FROM Suppliers;

DELETE FROM Shippers;

**viewsNwind.sql**

**--ProductSuppliersView**

CREATE OR REPLACE VIEW ProductSuppliersView AS

SELECT ProductID "Id", ProductName "Name", SupplierName "Suppliers", CategoryName "Category", City "City"

FROM Suppliers

INNER JOIN Products USING (SupplierID)

INNER JOIN Categories USING (CategoryID)

WITH READ ONLY;

**--ProductSalesSummaryView**

CREATE OR REPLACE VIEW ProductSalesSummaryView AS

SELECT ProductID "Id", ProductName "Name", SUM(Quantity) "Quantite Totale Vendue", SUM(Quantity \* p.UnitPrice) || '$' "Chiffre d'Affaires Total"

FROM Products p

INNER JOIN OrdersDetails USING (ProductID)

GROUP BY ProductID, ProductName

WITH READ ONLY;

**Nwind Partie 4**

**alterNwind.sql**

ALTER TABLE Customers ADD (ContactName VARCHAR2(20));

ALTER TABLE Suppliers MODIFY(HomePage VARCHAR(500));

ALTER TABLE Employees DISABLE CONSTRAINT Employees\_PostalCode\_nn;

ALTER TABLE Orders MODIFY(Freight CONSTRAINT Orders\_Freight\_nn NOT NULL);

ALTER TABLE Shippers ADD (Telephone NUMBER);