Constraint

here are some basic syntax examples for each type of constraint in SQL:

Data Integrity Constraint:

sql

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CREATE TABLE Customers (

CustomerID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

Email VARCHAR(100) NOT NULL UNIQUE,

Age INT CHECK (Age >= 18)

);

This example creates a table named Customers with several columns, including a primary key on the CustomerID column and a check constraint on the Age column to ensure that the value is at least 18.

Entity Integrity Constraint:

sql

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CREATE TABLE Orders (

OrderID INT PRIMARY KEY,

OrderDate DATE,

CustomerID INT REFERENCES Customers(CustomerID)

);

This example creates a table named Orders with several columns, including a primary key on the OrderID column and a foreign key constraint on the CustomerID column that references the CustomerID column in the Customers table.

Referential Integrity Constraint:

sql

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CREATE TABLE OrderDetails (

OrderDetailID INT PRIMARY KEY,

OrderID INT REFERENCES Orders(OrderID),

ProductID INT REFERENCES Products(ProductID),

Quantity INT

);

This example creates a table named OrderDetails with several columns, including foreign key constraints on the OrderID and ProductID columns that reference the OrderID and ProductID columns in the Orders and Products tables, respectively.

Check Constraint:

sql

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CREATE TABLE FinancialRatios (

RatioID INT PRIMARY KEY,

RatioName VARCHAR(50),

RatioValue DECIMAL(10, 2) CHECK (RatioValue >= 0 AND RatioValue <= 1)

);

This example creates a table named FinancialRatios with several columns, including a check constraint on the RatioValue column to ensure that the value is between 0 and 1.

Not Null Constraint:

sql

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CREATE TABLE Products (

ProductID INT PRIMARY KEY,

ProductName VARCHAR(50) NOT NULL,

ProductDescription VARCHAR(100)

);

This example creates a table named Products with several columns, including a not null constraint on the ProductName column to ensure that a value is always entered for this column.

These are just some basic examples, and the syntax for constraints can vary slightly depending on the database management system being used.