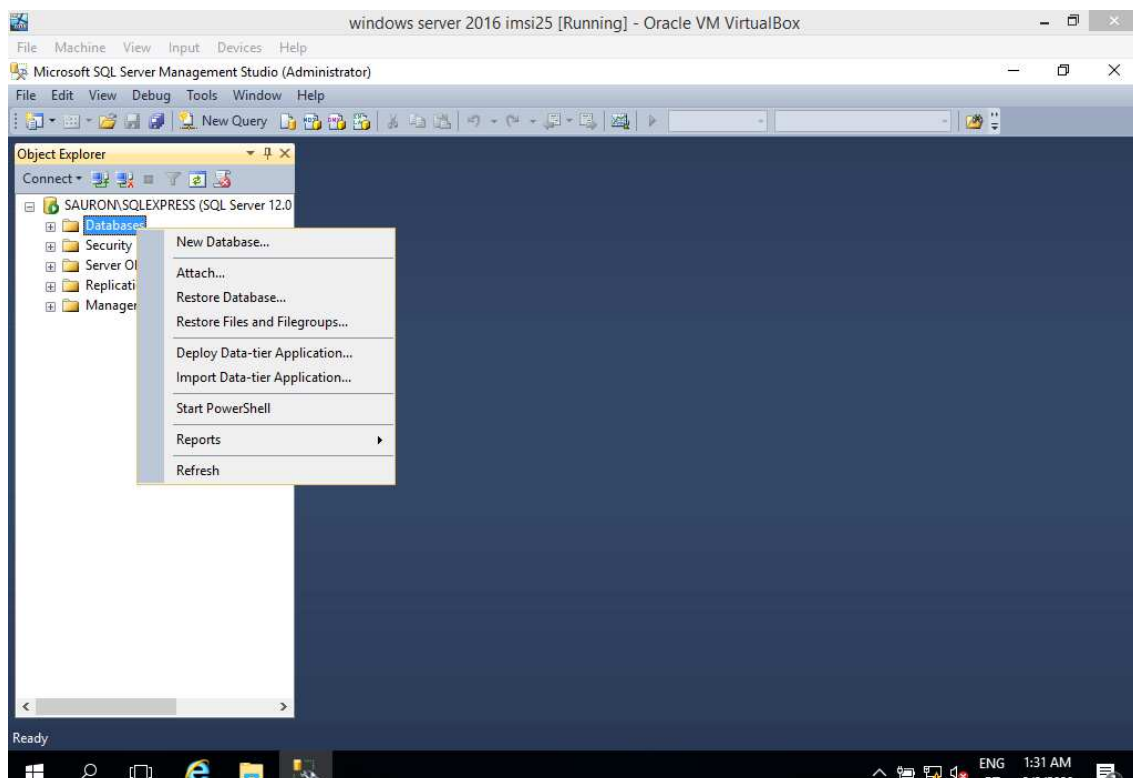


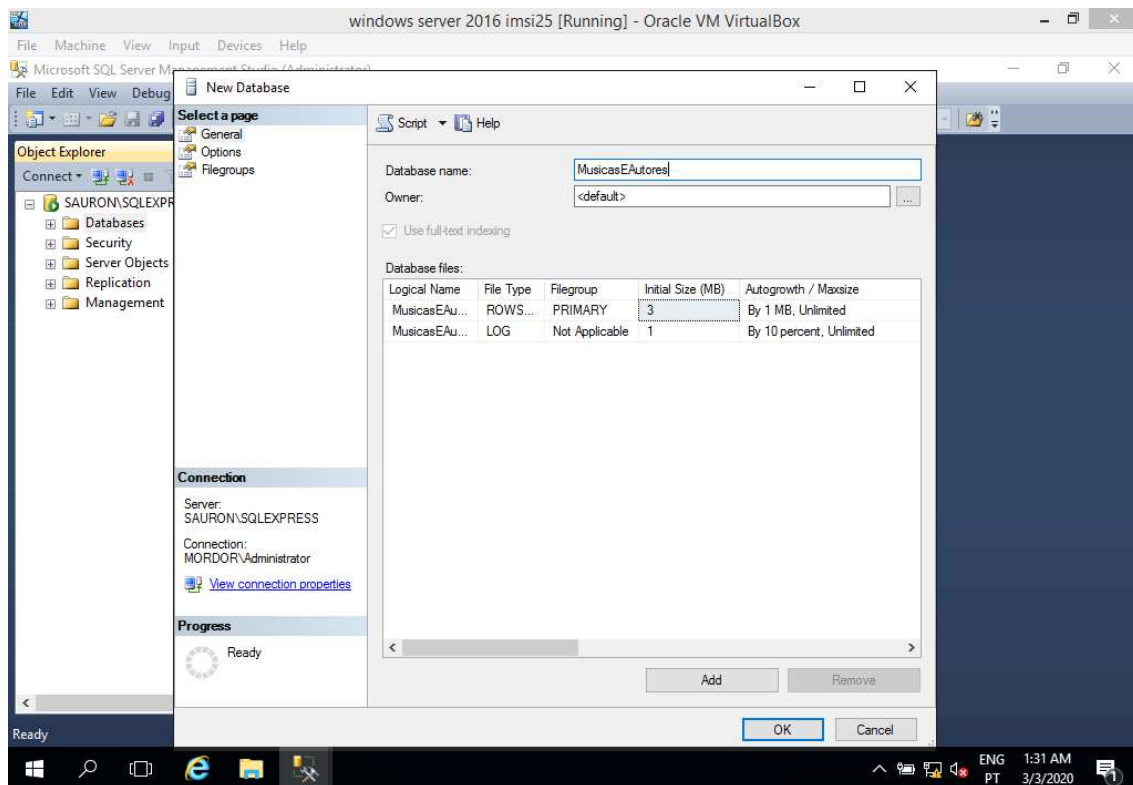


Tipos de variáveis

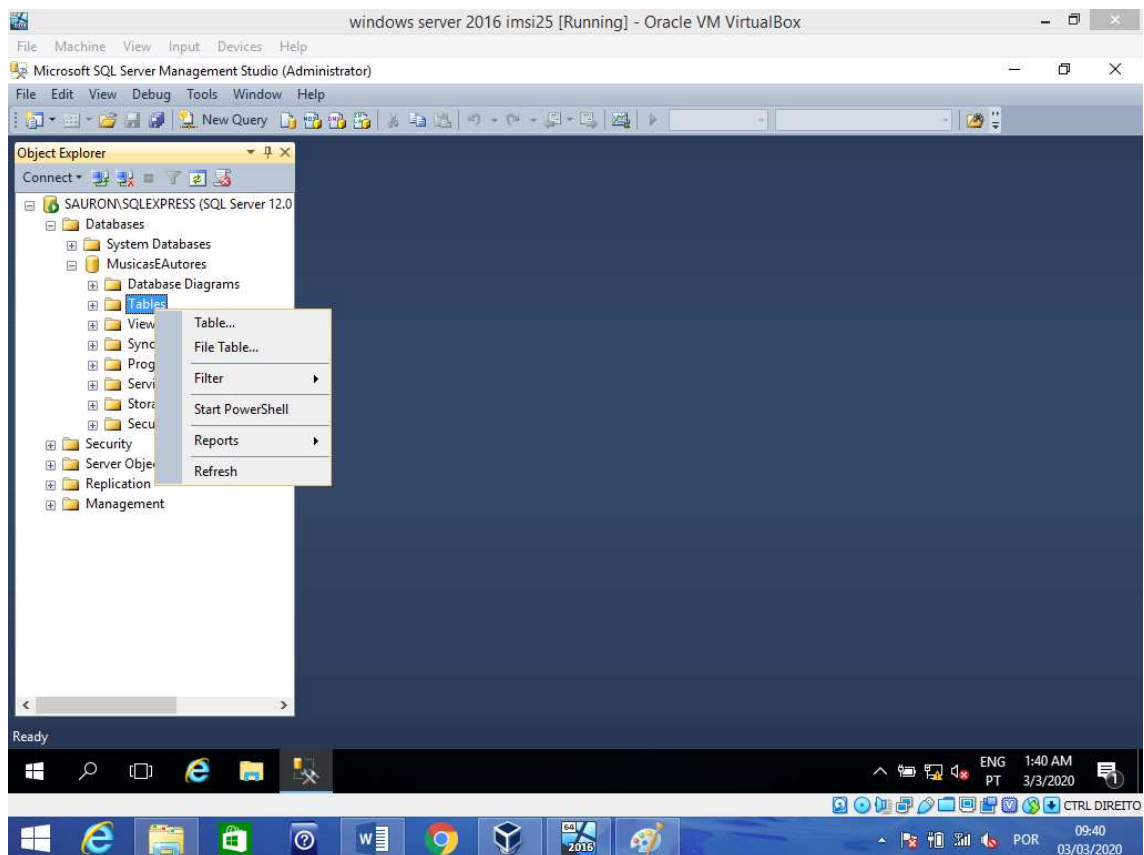
char	UTF-8 character encoding	String de tamanho fixo. n: bytes
varchar	UTF-8 character encoding	String de tamanho variável. n: bytes
nchar	UTF-16 character encoding	String de tamanho fixo. n: pares de bytes
nvarchar	UTF-16 character encoding	String de tamanho variável. n: pares de bytes
bigint	-2^{63} (-9,223,372,036,854,775,808) to $2^{63}-1$ (9,223,372,036,854,775,807)	8 Bytes
int	-2^{31} (-2,147,483,648) to $2^{31}-1$ (2,147,483,647)	4 Bytes
smallint	-2^{15} (-32,768) to $2^{15}-1$ (32,767)	2 Bytes
tinyint	0 to 255	1 Byte
decimal[(p[,s])] ou numeric[(p[,s])]	p: máximo total de dígitos, s: total de dígitos à direita da vírgula	
float [(n)]	- 1.79E+308 to -2.23E-308, 0 e 2.23E-308 to 1.79E+308 se $1 \leq n \leq 24$, n = 24 Se $25 \leq n \leq 53$, n = 53	Depende de n
Real (=float(53))	- 3.40E + 38 to -1.18E - 38, 0 and 1.18E - 38 to 3.40E + 38	4 Bytes

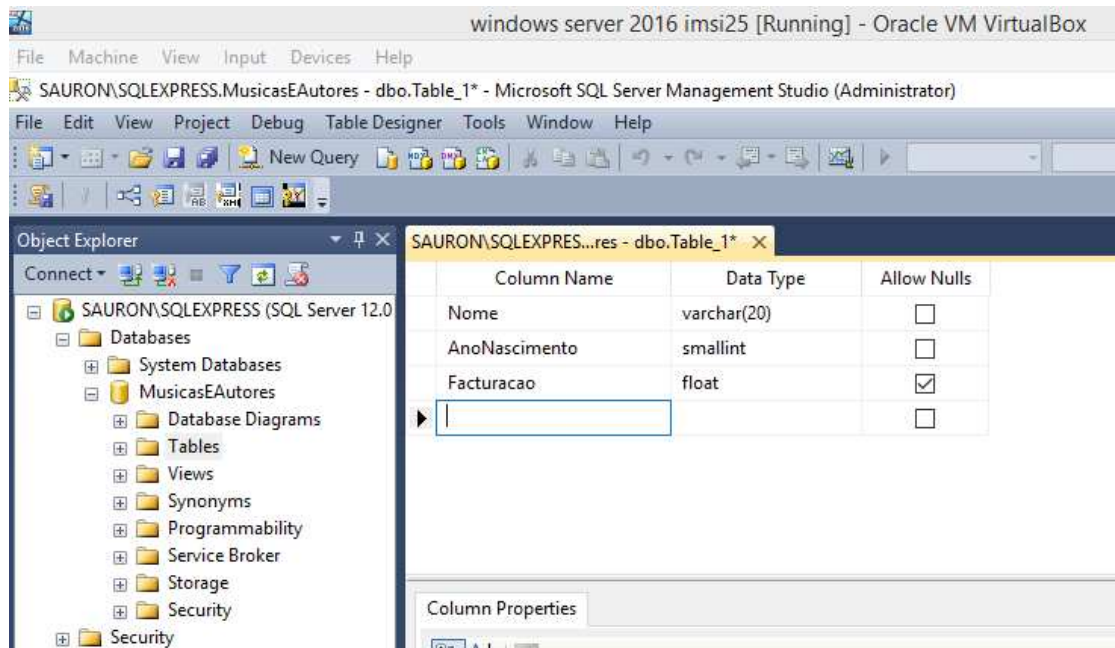
Criar base de dados



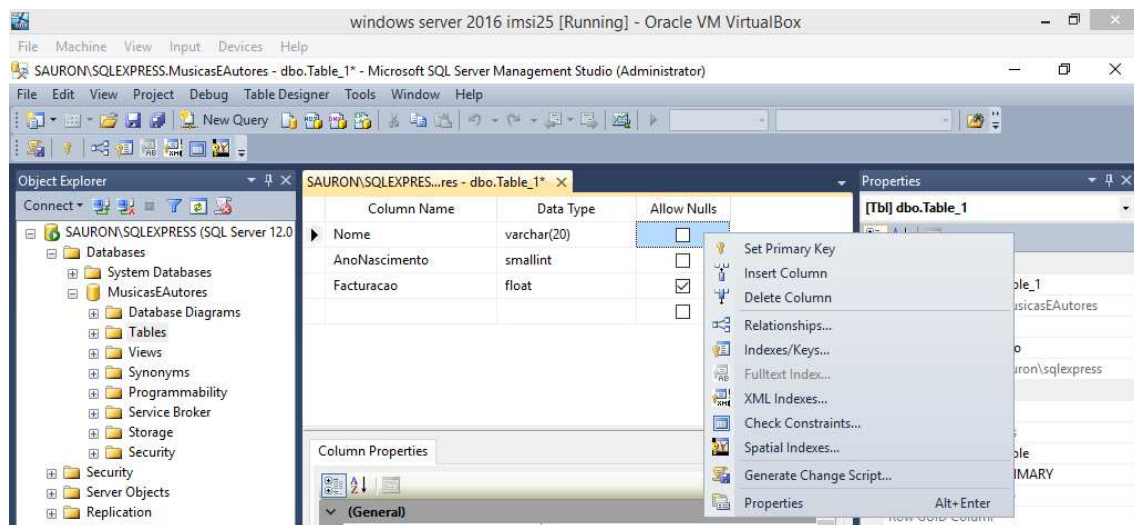


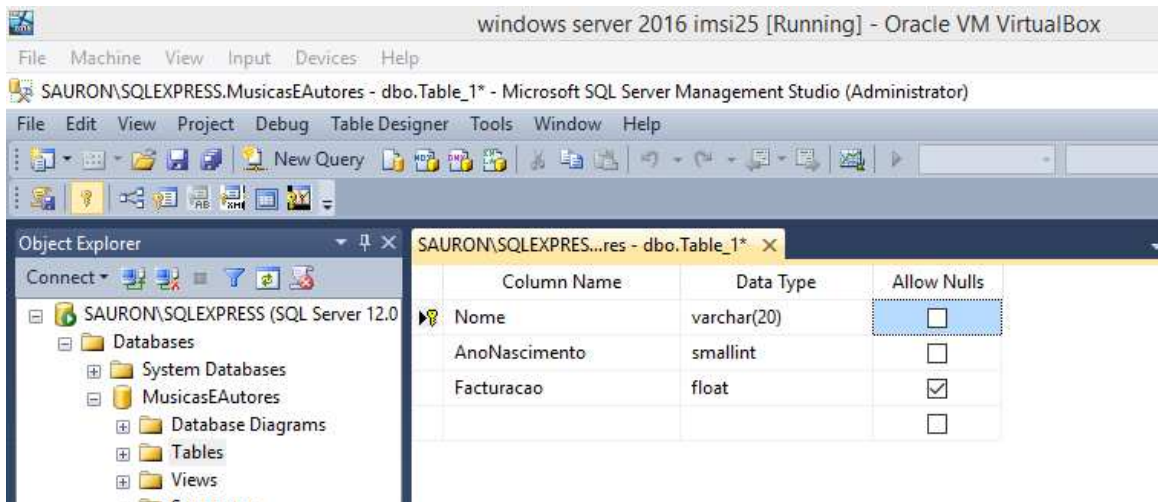
Criar uma tabela:



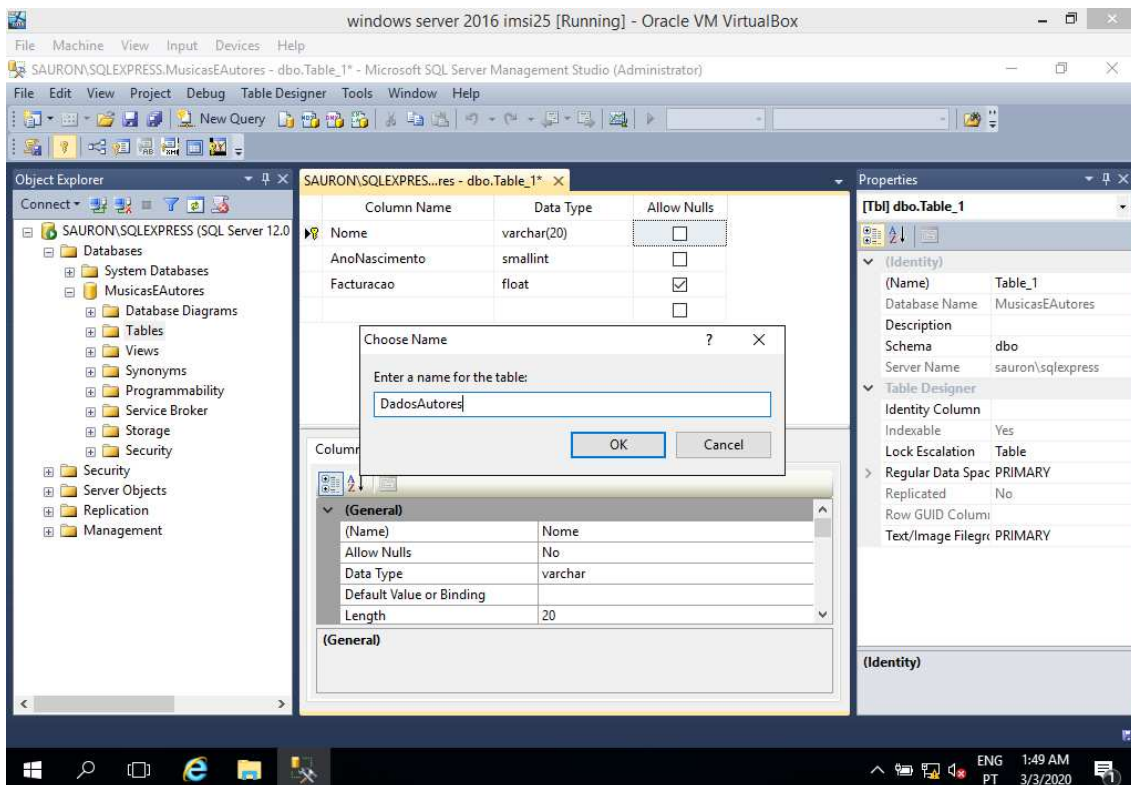


Definir a chave primária no campo Nome:



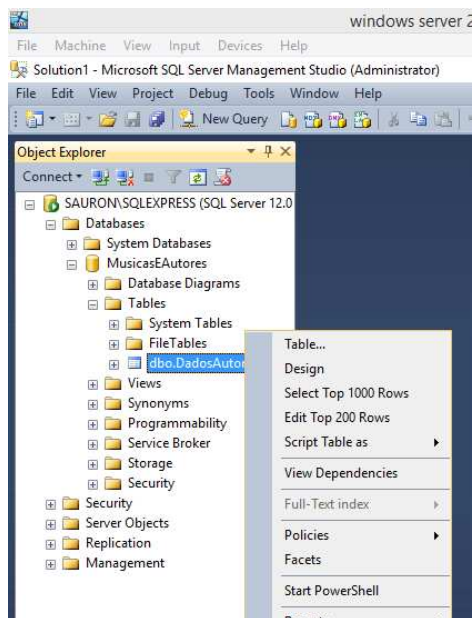
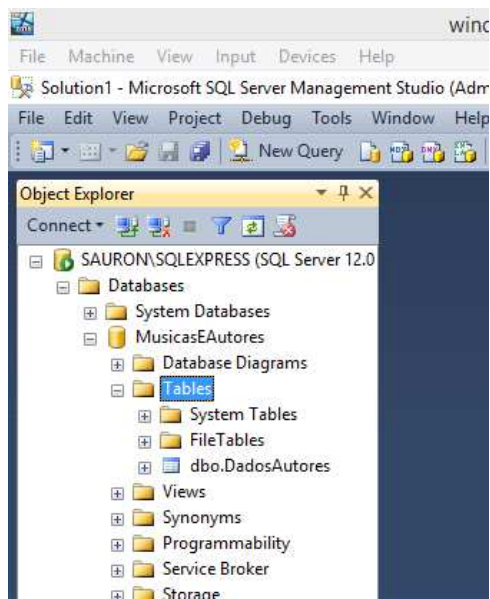


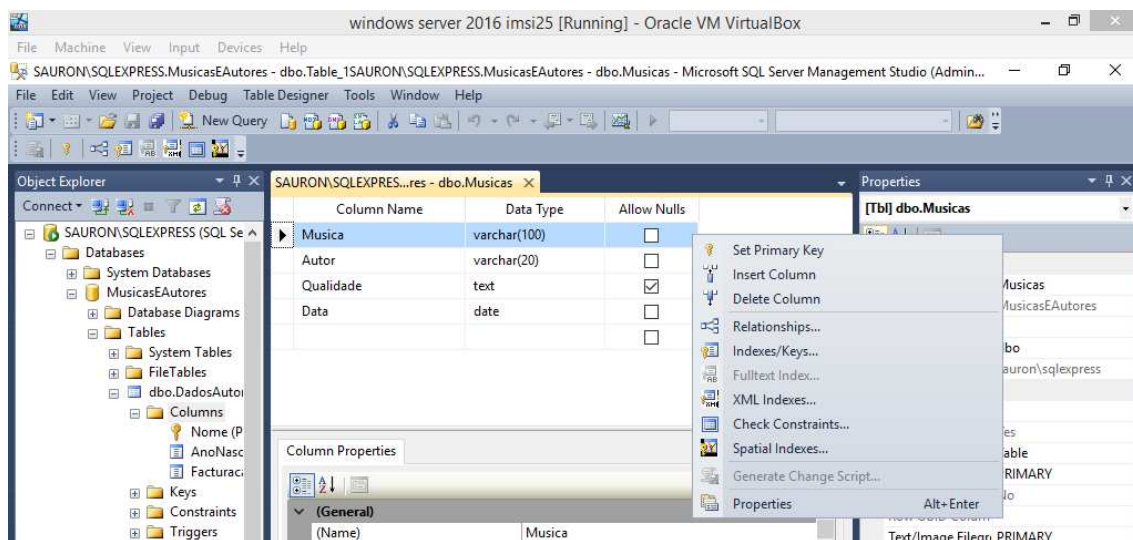
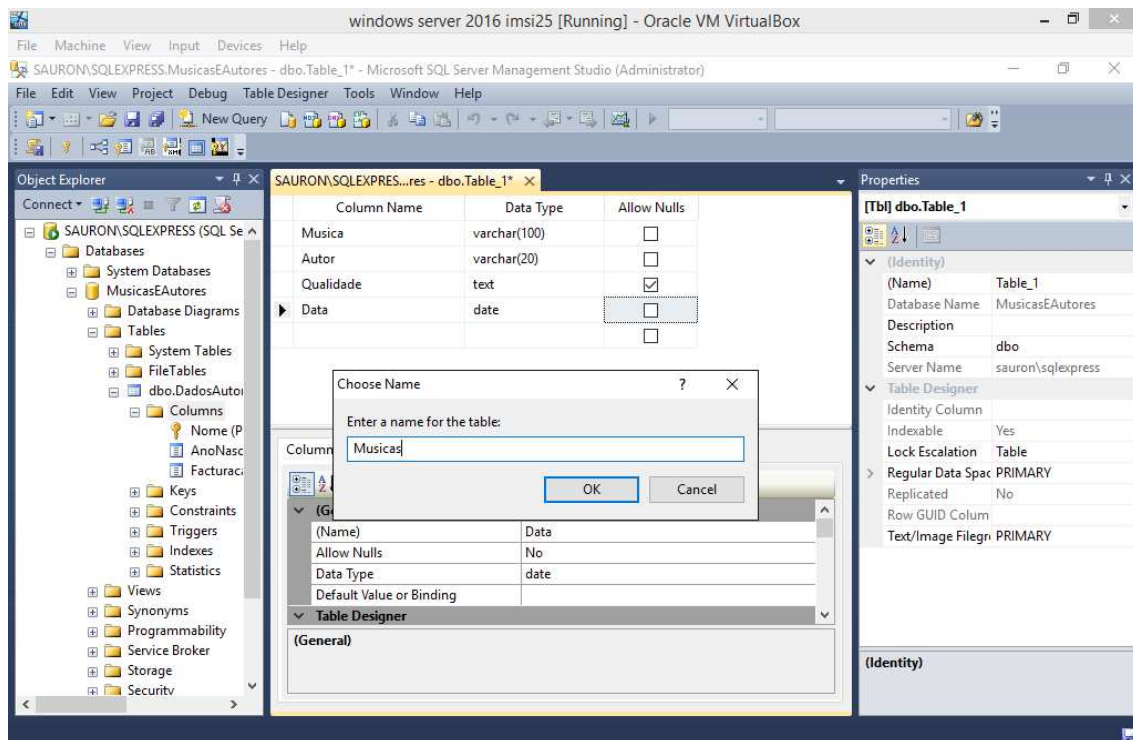
Gravar a tabela DadosAutores:





Repetimos os mesmos passos para a tabela Musicas:

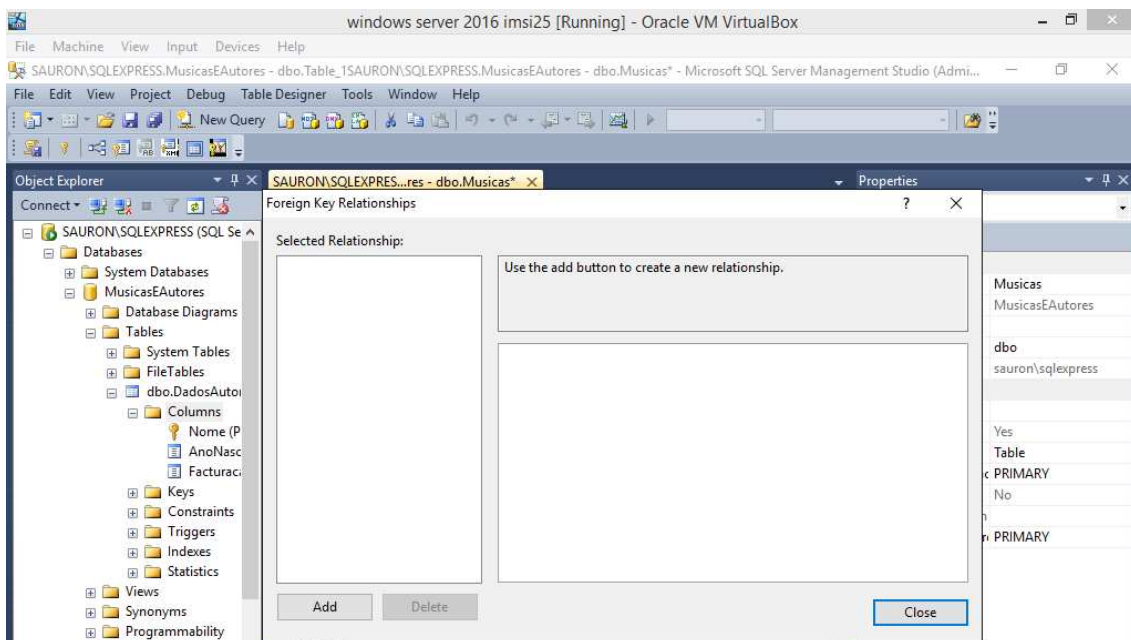
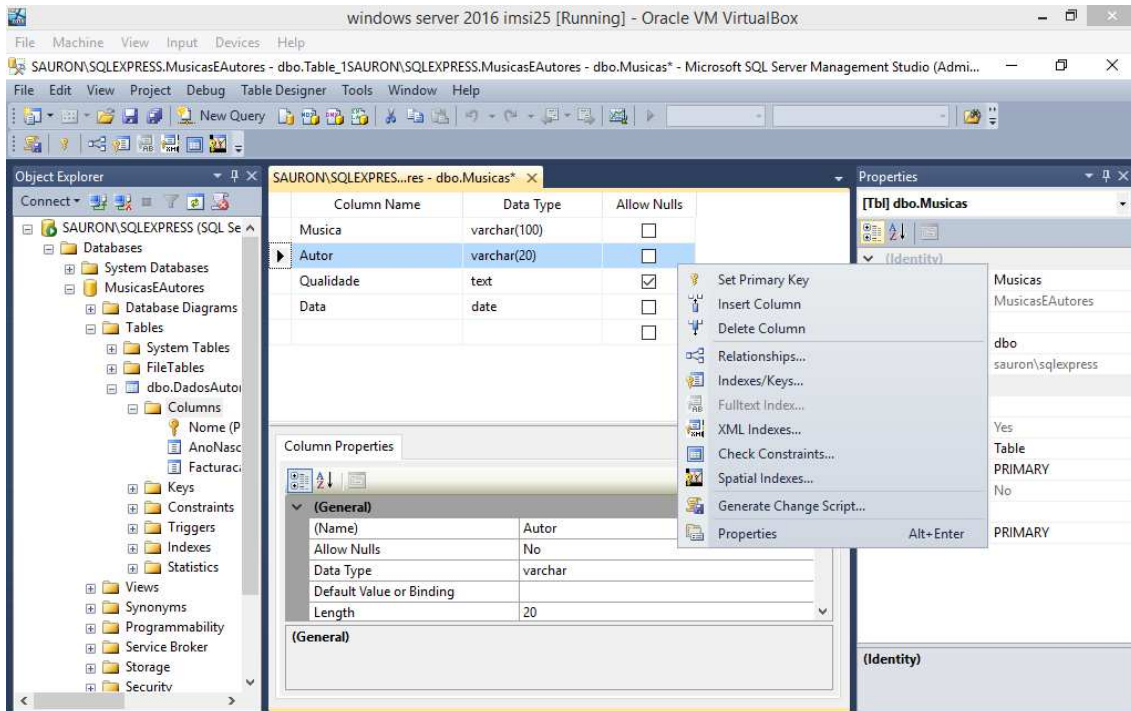




Definir Musica como chave primária



Vamos criar uma relação entre os campos Autor de Musicas e Nome de DadosAutores:





windows server 2016 imsi25 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

SAURON\SQLEXPRESS\MusicasEAutores - dbo.Table_1SAURON\SQLEXPRESS\MusicasEAutores - dbo.Musicas* - Microsoft SQL Server Management Studio (Admini...

File Edit View Project Debug Table Designer Tools Window Help

New Query

Object Explorer

Connect

SAURON\SQLEXPRESS (SQL Se

Databases

System Databases

MusicasEAutores

Database Diagrams

Tables

System Tables

FileTables

dbo.DadosAuto

Columns

Nome (P

AnoNasc

Facturac

Keys

Constraints

Triggers

Indexes

Statistics

Views

Synonyms

Programmability

Service Broker

SAURON\SQLEXPRESS...res - dbo.Musicas*

Foreign Key Relationships

Selected Relationship:

FK_Musicas_Musicas*

Editing properties for new relationship. The 'Tables And Columns Specification' property needs to be filled in before the new relationship will be accepted.

(General)

Check Existing Data On Creati Yes

Tables And Columns Specifici

Identity

(Name) FK_Musicas_Musicas

Description

Table Designer

Enforce For Replication Yes

Enforce Foreign Key Constrai Yes

INSERT And UPDATE Specifici

Add Delete Close

Musicas

MusicasEAutores

dbo

sauron/sqlexpress

Yes

Table

PRIMARY

No

PRIMARY

windows server 2016 imsi25 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

SAURON\SQLEXPRESS\MusicasEAutores - dbo.Table_1SAURON\SQLEXPRESS\MusicasEAutores - dbo.Musicas* - Microsoft SQL Server Management Studio (Admini...

File Edit View Project Debug Table Designer Tools Window Help

New Query

Object Explorer

Connect

SAURON\SQLEXPRESS (SQL Se

Databases

System Databases

MusicasEAutores

Database Diagrams

Tables

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dbo.DadosAuto

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SAURON\SQLEXPRESS...res - dbo.Musicas*

Foreign Key Relationships

Selected Relationship:

FK_Musicas_Musicas*

Editing properties for new relationship. The 'Tables And Columns Specification' property needs to be filled in before the new relationship will be accepted.

(General)

Check Existing Data On Creati Yes

Tables And Columns Specifici

Identity

(Name) FK_Musicas_Musicas

Description

Table Designer

Enforce For Replication Yes

Enforce Foreign Key Constrai Yes

INSERT And UPDATE Specifici

Add Delete Close

Musicas

MusicasEAutores

dbo

sauron/sqlexpress

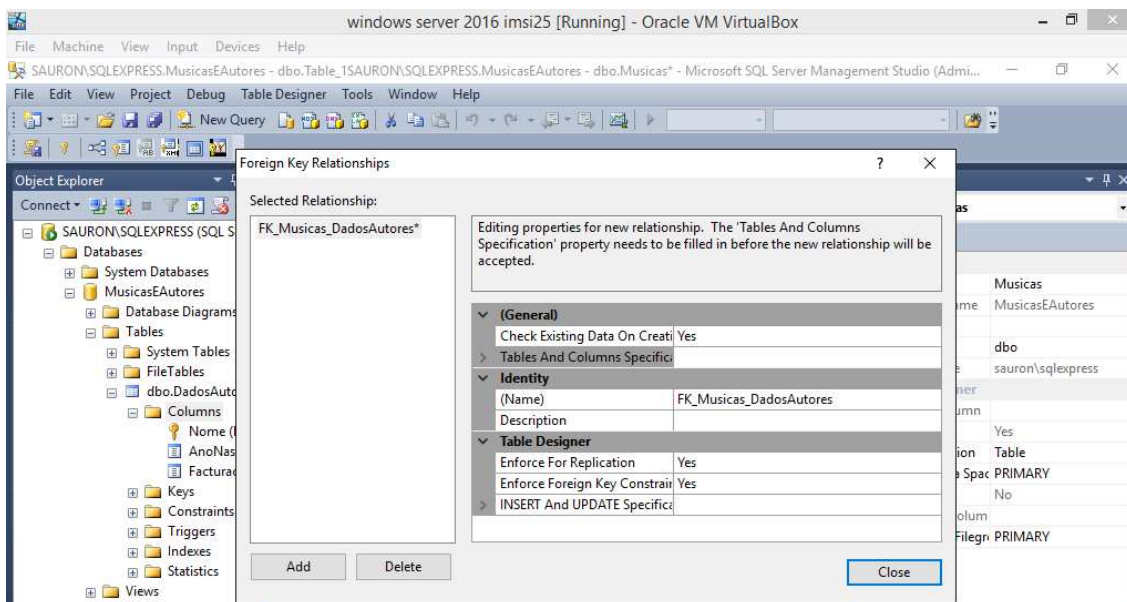
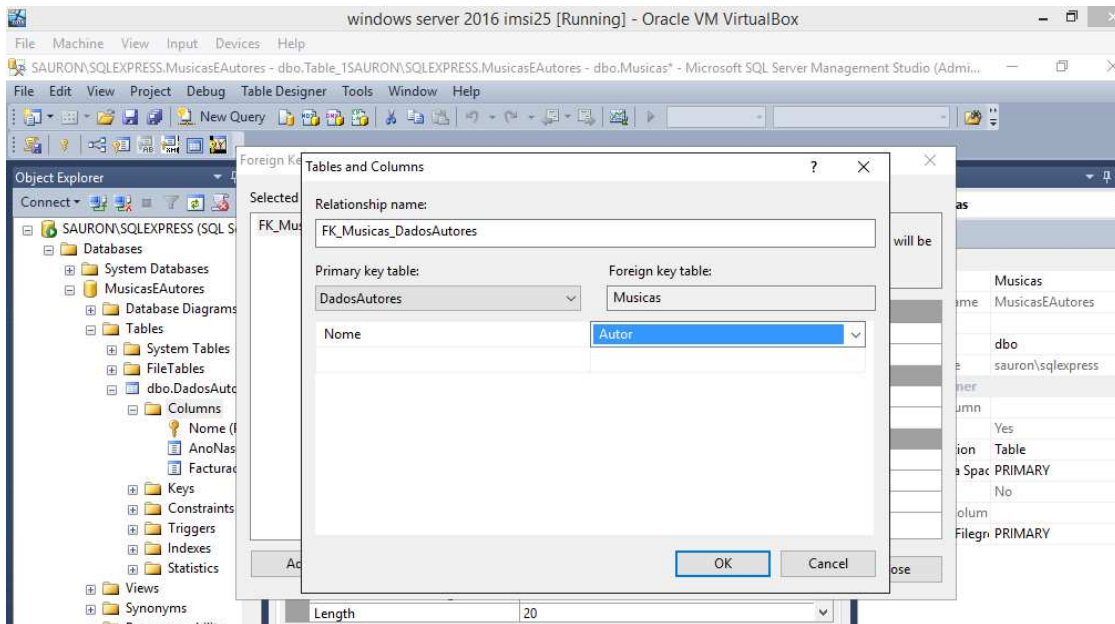
Yes

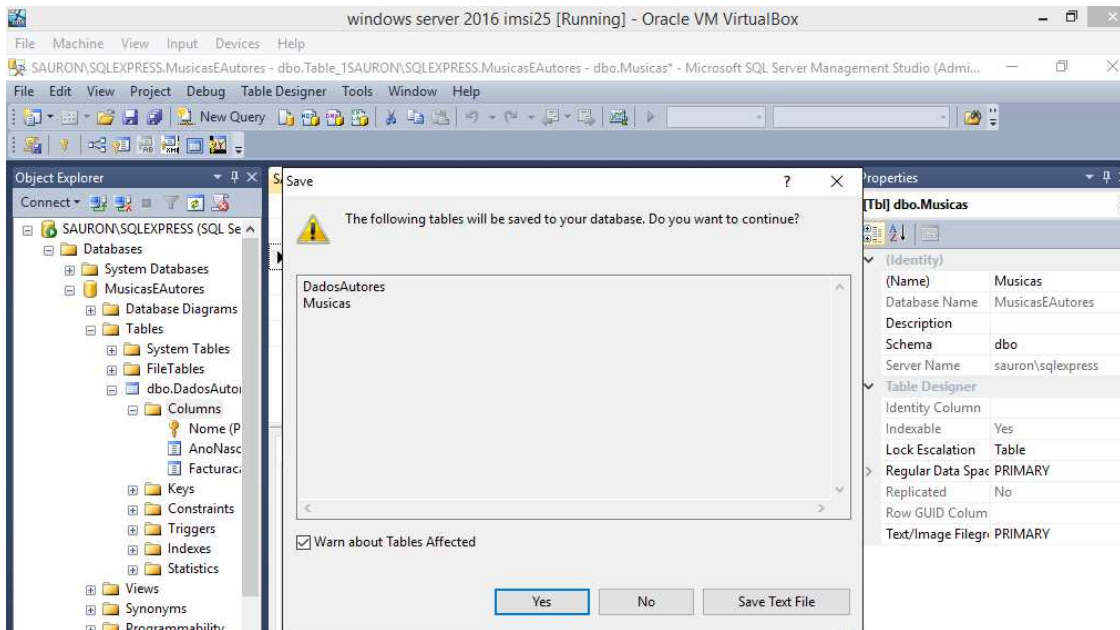
Table

PRIMARY

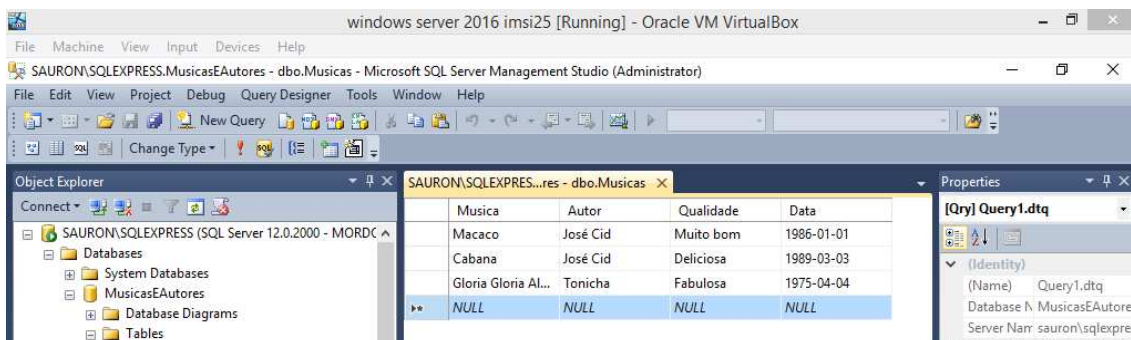
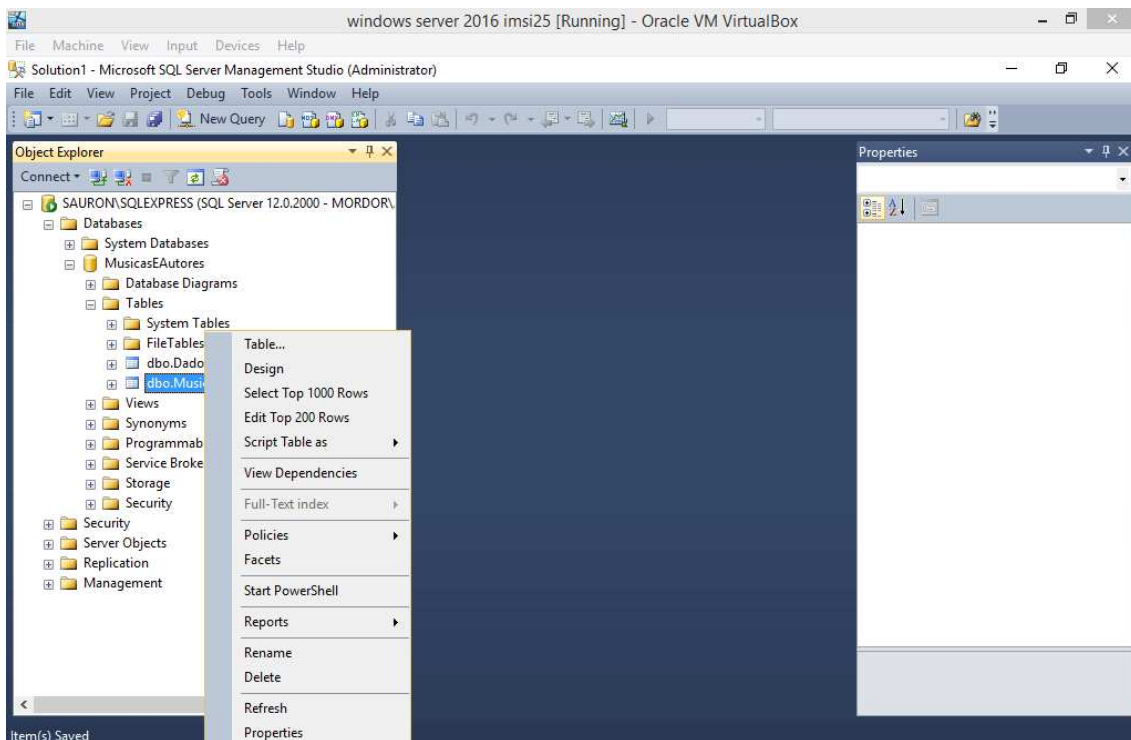
No

PRIMARY





Vamos agora inserir alguns registros:





The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The 'Object Explorer' on the left shows the database structure for 'SAURON\SQLEXPRESS (SQL Server 12.0.2000 - MORDC)'. The 'Tables' folder is expanded, showing 'dbo.Musicas'. The 'Properties' pane on the right shows the 'Query Designer' tab. A warning dialog box is displayed in the center, stating: 'This database does not have one or more of the support objects required to use database diagramming. Do you wish to create them?'. The dialog has 'Yes' and 'No' buttons.

Musica	Autor	Qualidade	Data
Macaco	José Cid	Muito bom	1986-01-01
Cabana	José Cid	Deliciosa	1989-03-03
Gloria Gloria Al...	Tonicha	Fabulosa	1975-04-04
NULL	NULL	NULL	NULL

Podemos através da opção de diagramas ver a relação entre tabelas:

The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The 'Object Explorer' on the left shows the database structure for 'SAURON\SQLEXPRESS (SQL Server 12.0.2000 - MORDC)'. The 'Database Diagrams' folder is selected and circled. The 'Add Table' dialog box is open, showing a list of tables: 'DadosAutores' and 'Musicas'. The 'Add' button is highlighted.

