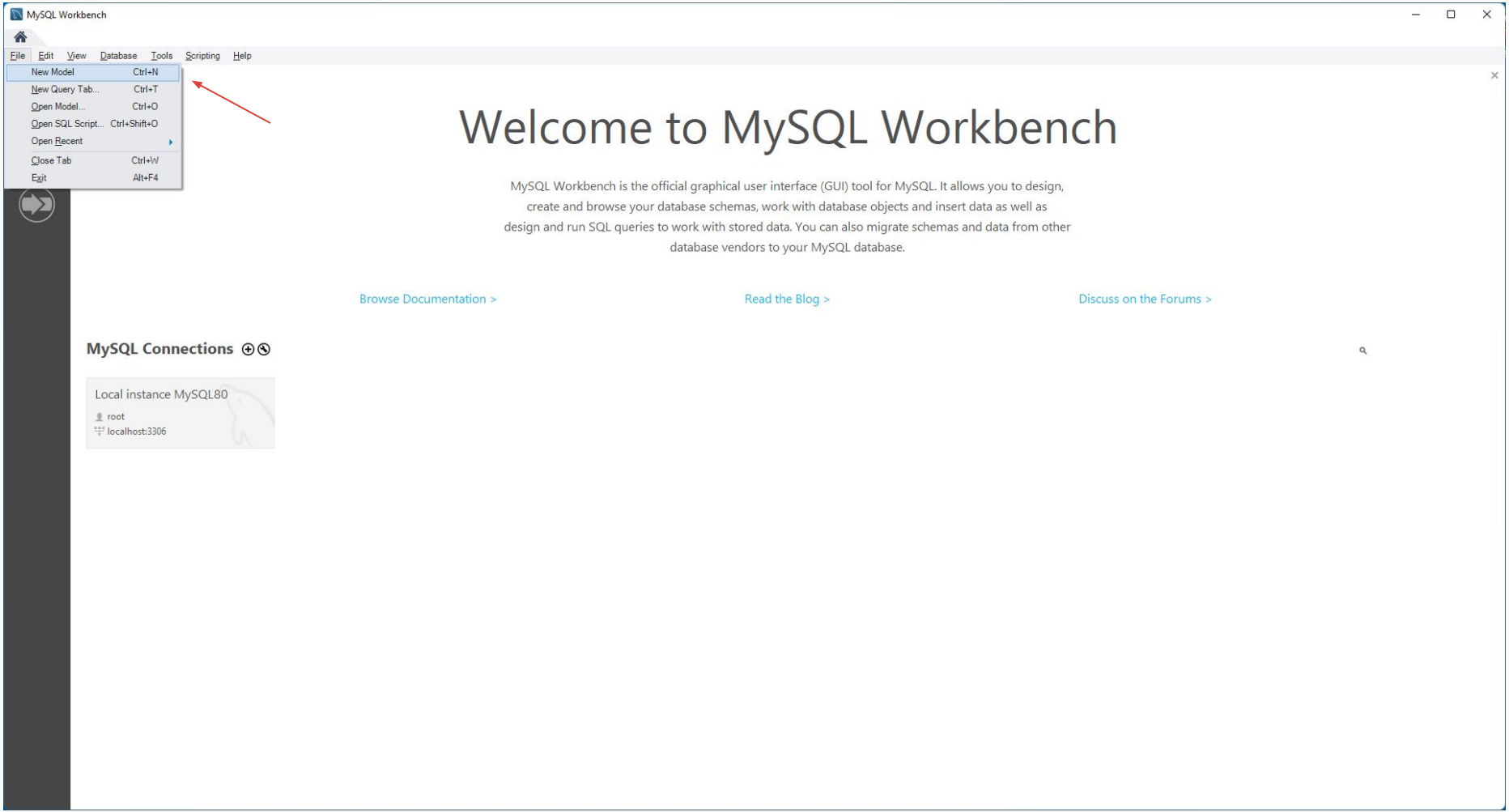
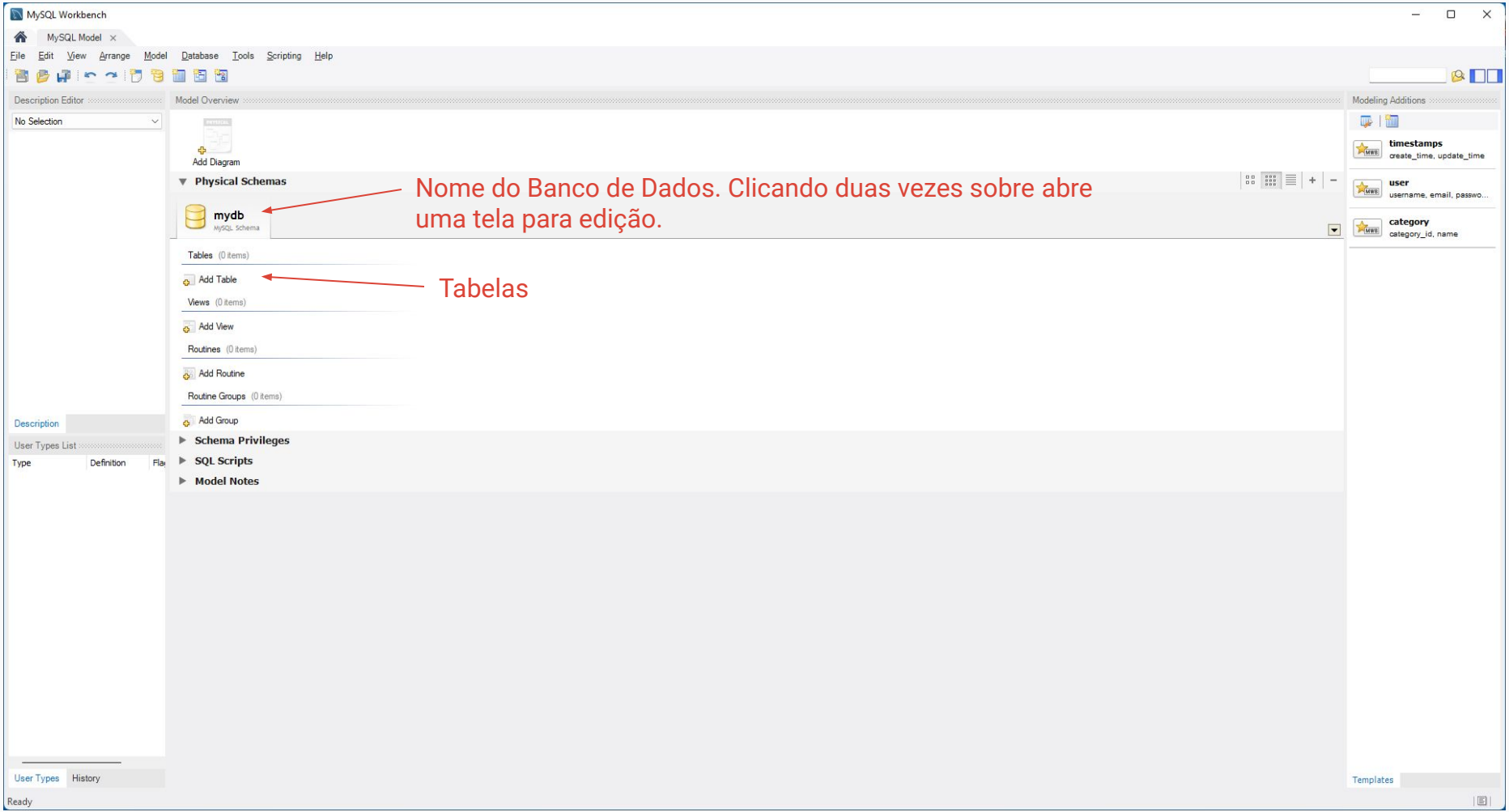
Fatec
Jahu

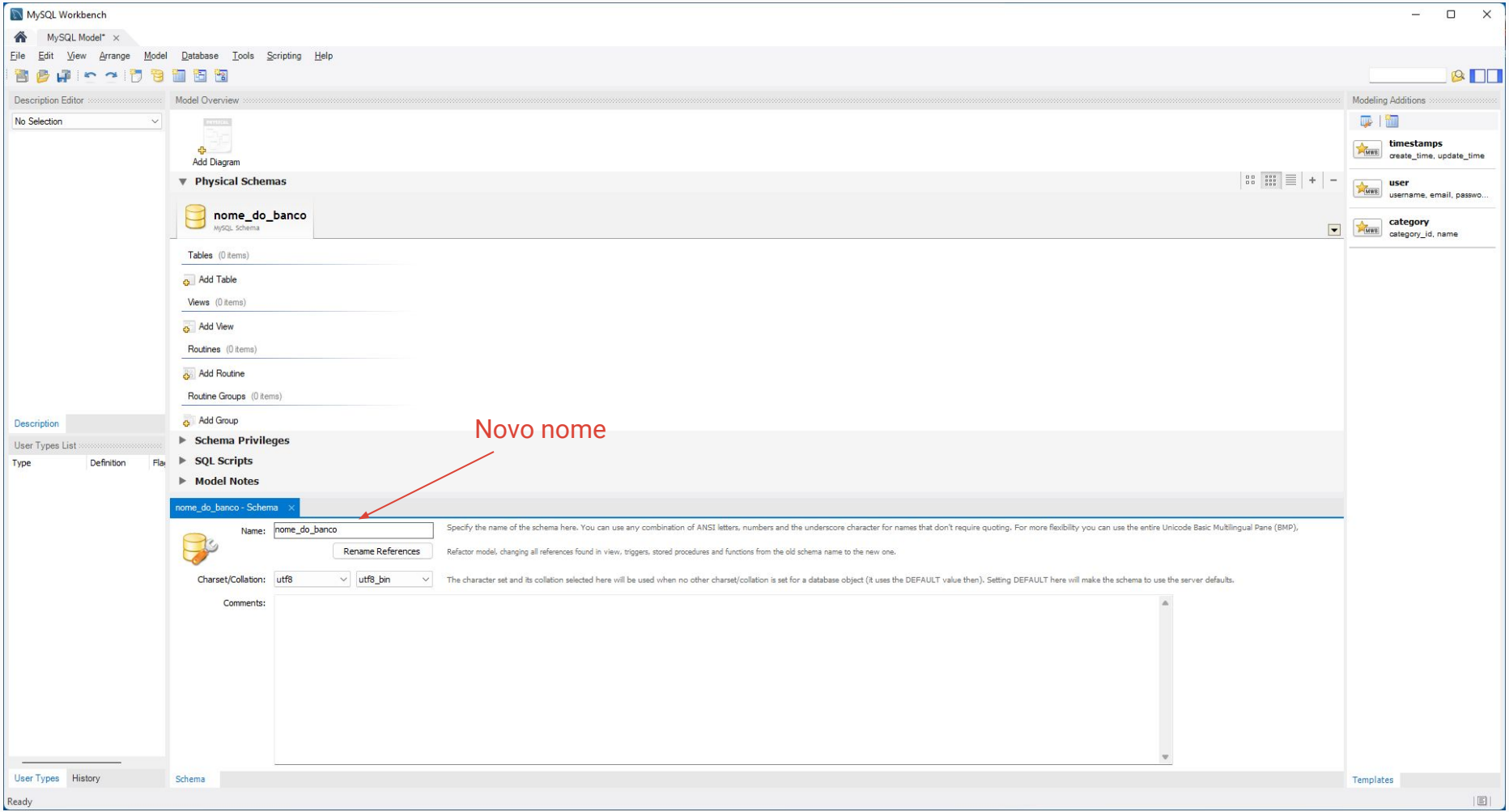
MySQL Workbench

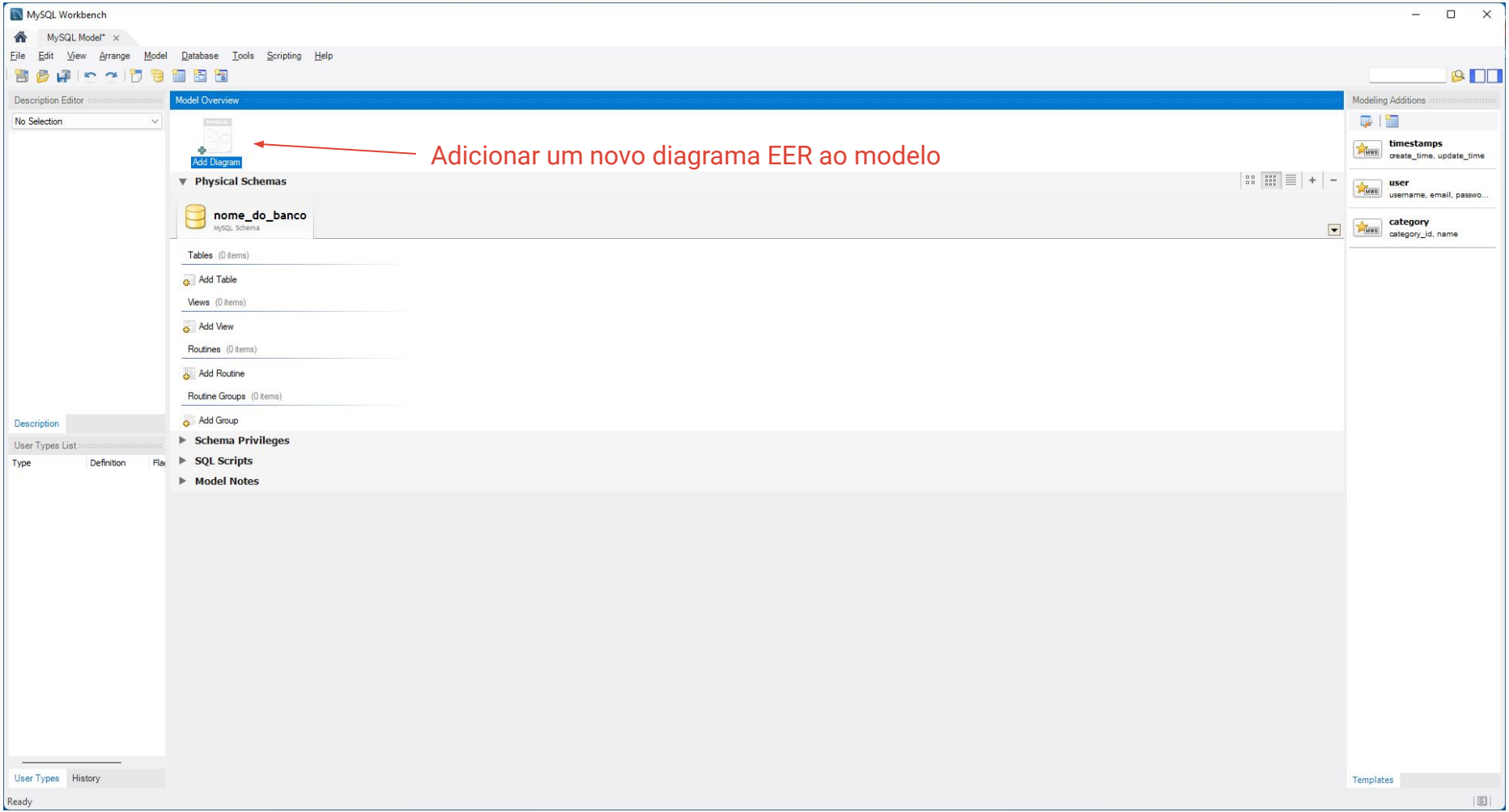
Curso: Tecnologia em Gestão da Tecnologia da Informação
Professor: Yuri Magagnatto

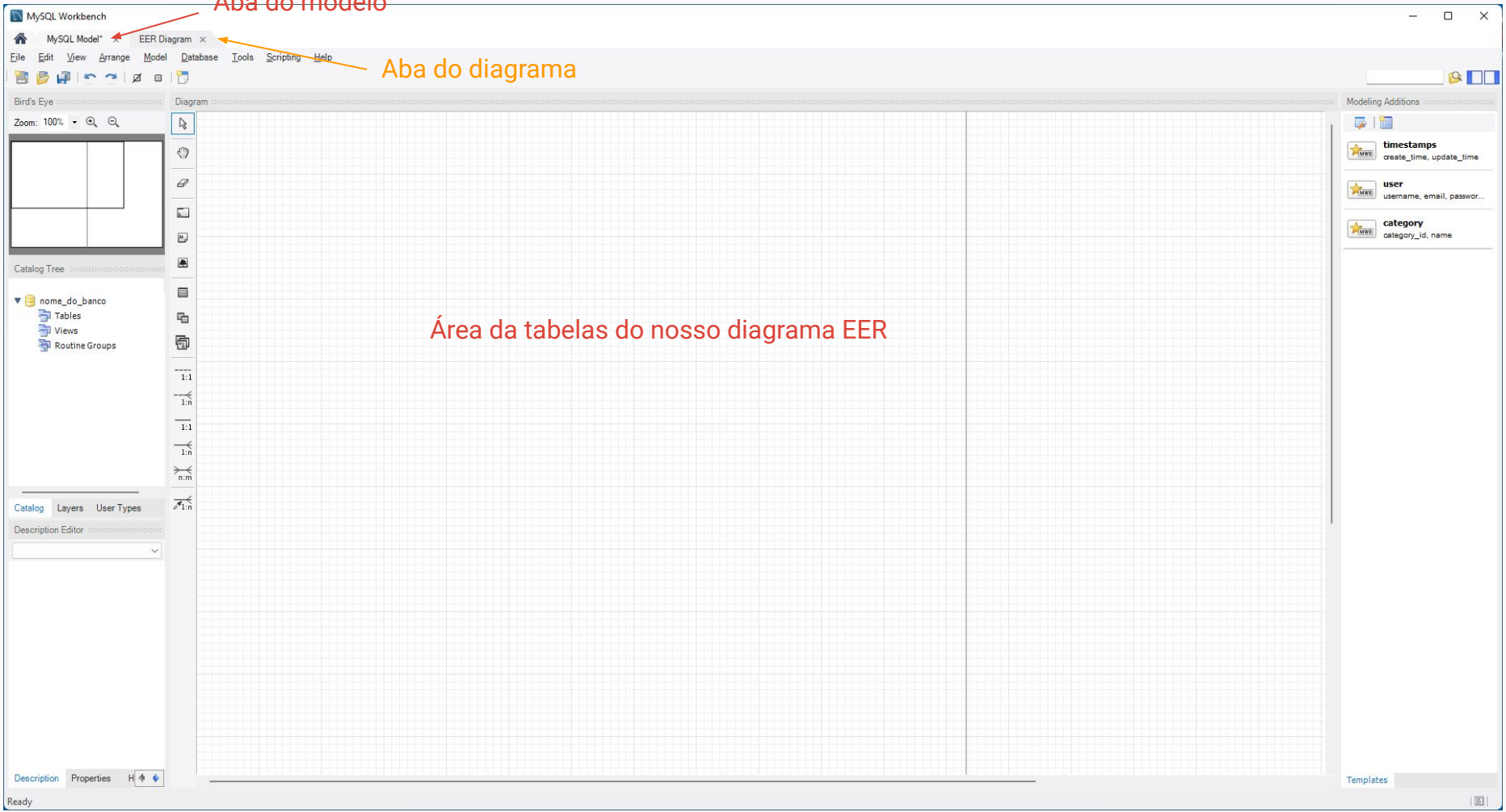
Criando um modelo de Banco de Dados

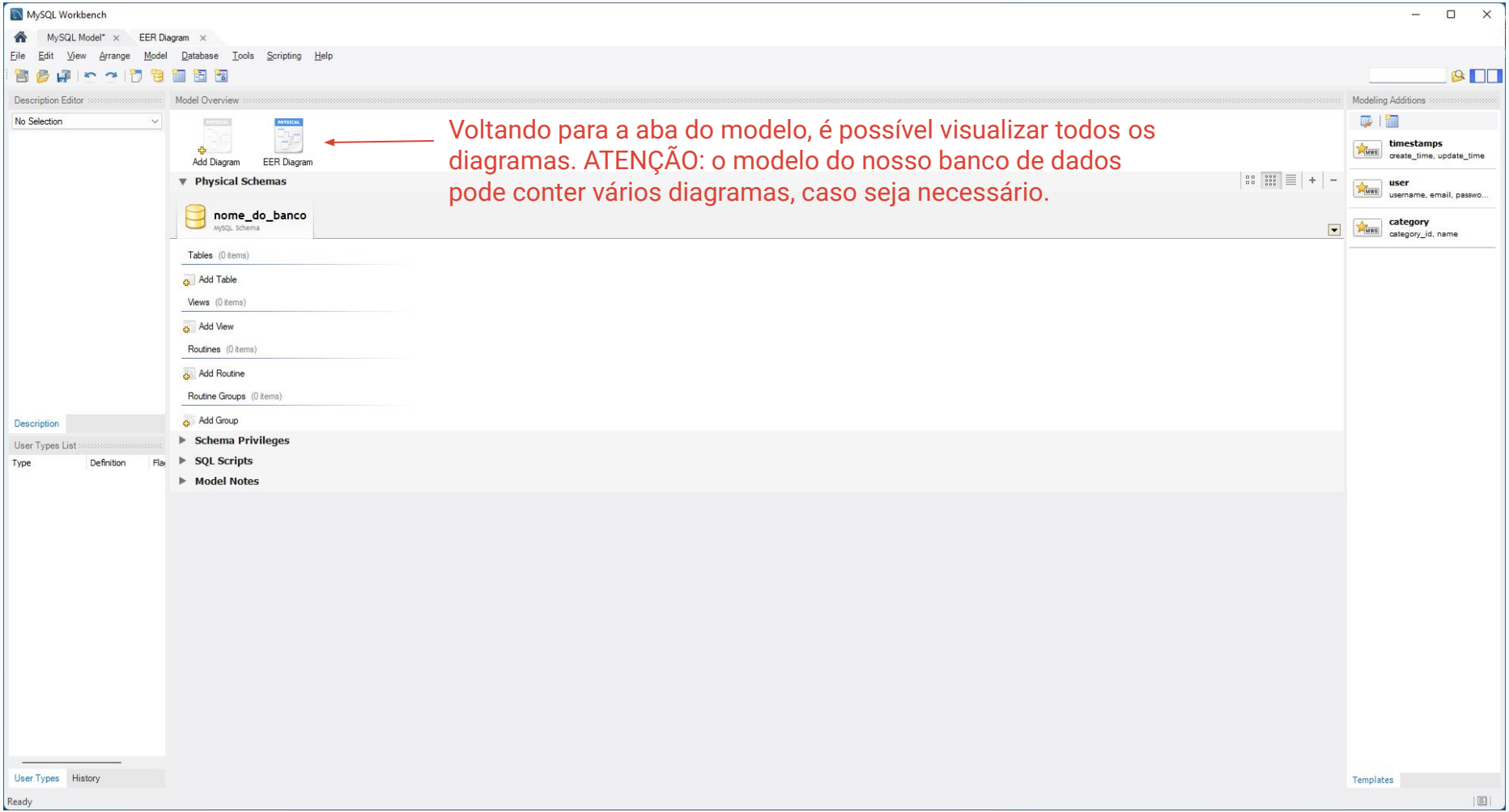

MySQL Workbench
File Edit View Database Tools Scripting Help
New Model Ctrl+N
New Query Tab... Ctrl+T
Open Model... Ctrl+O
Open SQL Script... Ctrl+Shift+O
Open Recent
Close Tab Ctrl+W
Exit Alt+F4
Welcome to MySQL Workbench
MySQL Workbench is the official graphical user interface (GUI) tool for MySQL. It allows you to design, create and browse your database schemas, work with database objects and insert data as well as design and run SQL queries to work with stored data. You can also migrate schemas and data from other database vendors to your MySQL database.
Browse Documentation >
Read the Blog >
Discuss on the Forums >
MySQL Connections
Local instance MySQL80
root
localhost:3306


MySQL Workbench
MySQL Model
File Edit View Arrange Model Database Tools Scripting Help
Description Editor
No Selection
Model Overview
Add Diagram
Physical Schemas
mydb
MySQL Schema
Nome do Banco de Dados. Clicando duas vezes sobre abre uma tela para edição.
Tables (0 items)
Add Table
Tabelas
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Description
User Types List
Type
Definition
User Types
History
Templates
Ready

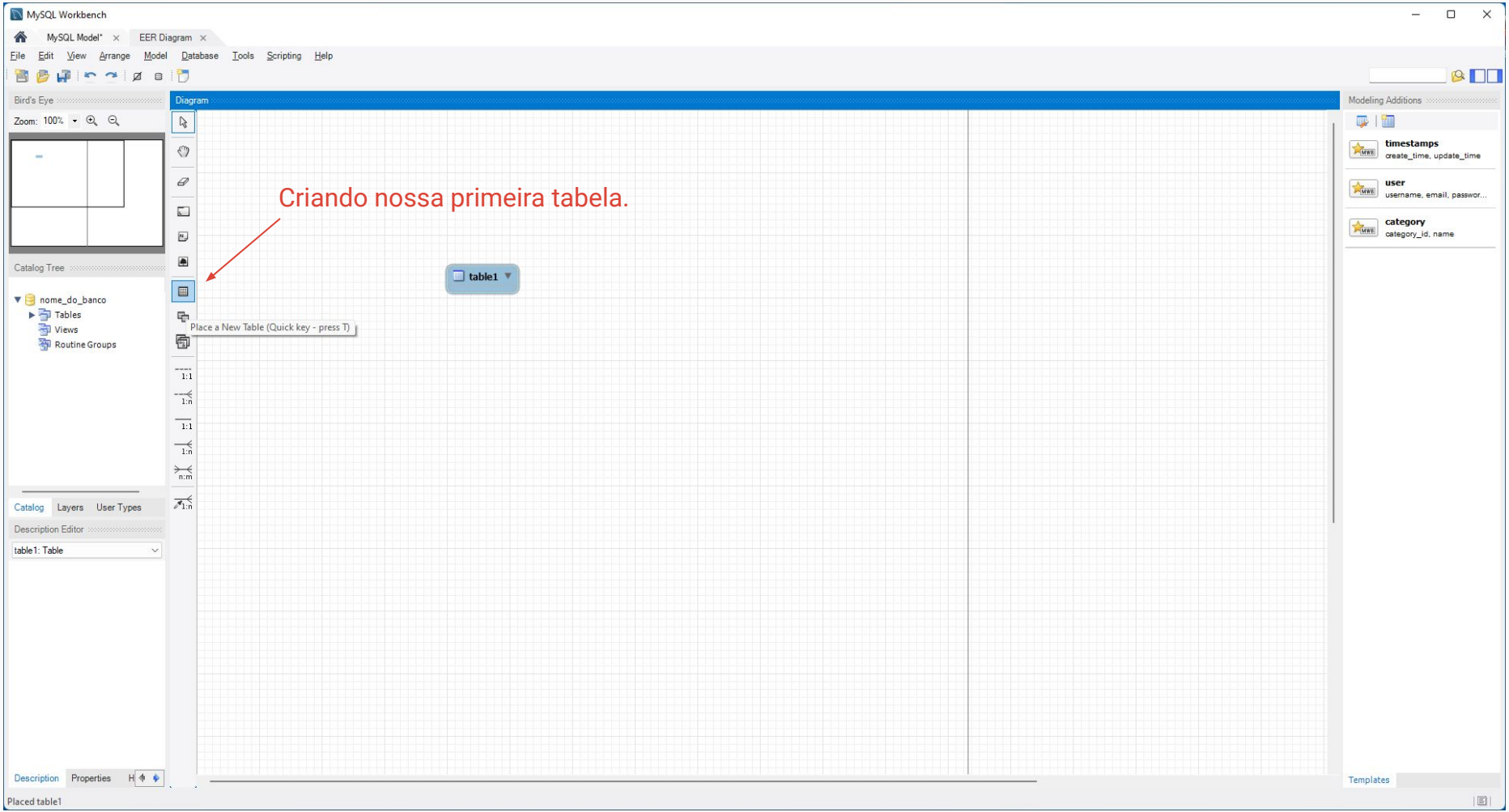

MySQL Workbench
MySQL Model*
File Edit View Arrange Model Database Tools Scripting Help
Description Editor
No Selection
Model Overview
Add Diagram
Physical Schemas
nome_do_banco
MySQL Schema
Tables (0 items)
Add Table
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Novo nome
nome_do_banco - Schema
Name: nome_do_banco
Rename References
Specify the name of the schema here. You can use any combination of ANSI letters, numbers and the underscore character for names that don't require quoting. For more flexibility you can use the entire Unicode Basic Multilingual Pane (BMP).
Refactor model, changing all references found in view, triggers, stored procedures and functions from the old schema name to the new one.
Charset/Collation: utf8 utf8_bin
The character set and its collation selected here will be used when no other charset/collation is set for a database object (it uses the DEFAULT value then). Setting DEFAULT here will make the schema to use the server defaults.
Comments:
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Description
User Types List
Type
Definition
User Types
History
Schema
Templates
Ready

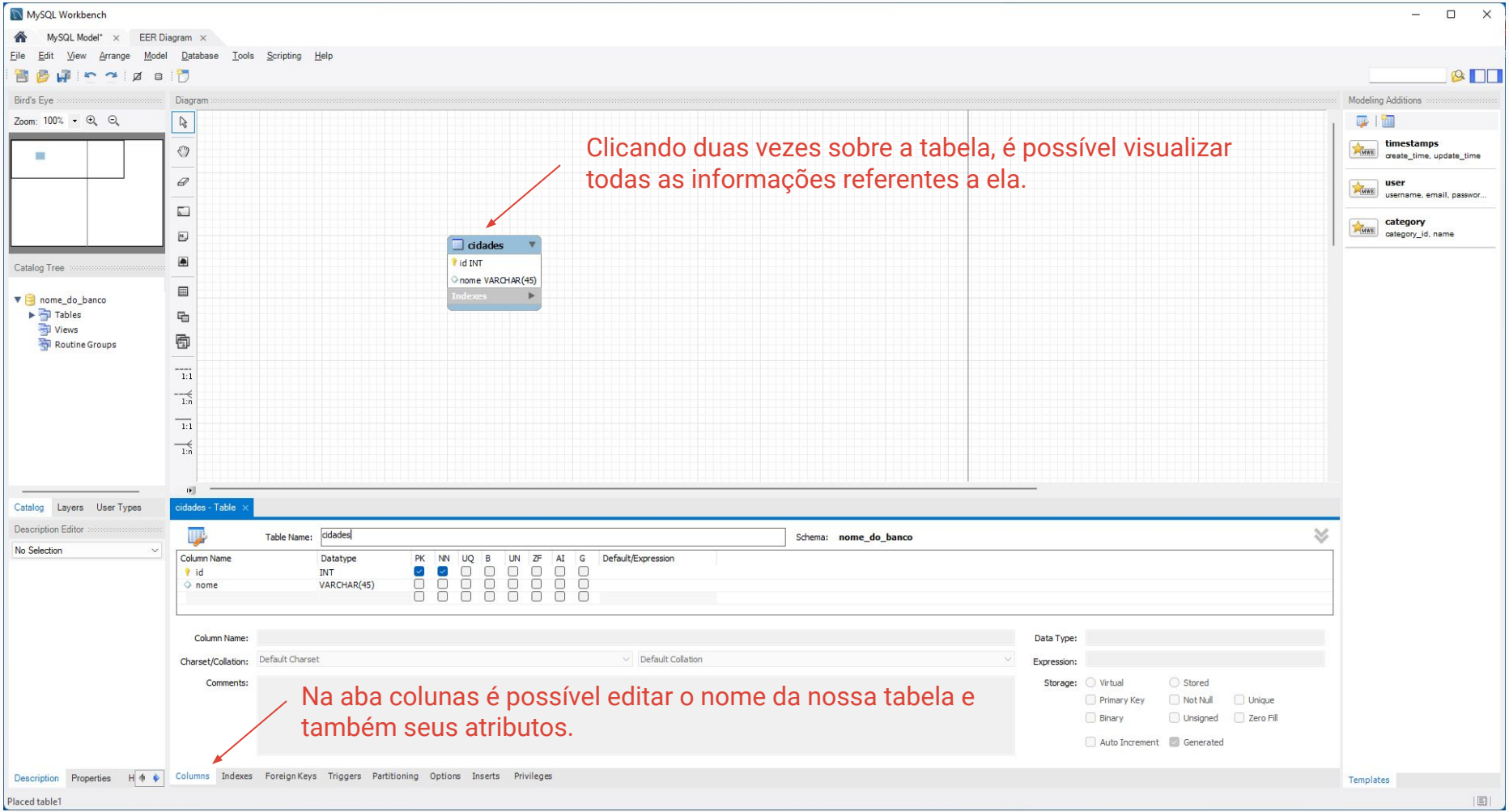

MySQL Workbench
MySQL Model*
File Edit View Arrange Model Database Tools Scripting Help
Description Editor
No Selection
Model Overview
Add Diagram
Adicionar um novo diagrama EER ao modelo
Physical Schemas
nome_do_banco
MySQL Schema
Tables (0 items)
Add Table
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Description
User Types List
Type
Definition
User Types
History
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Templates
Ready

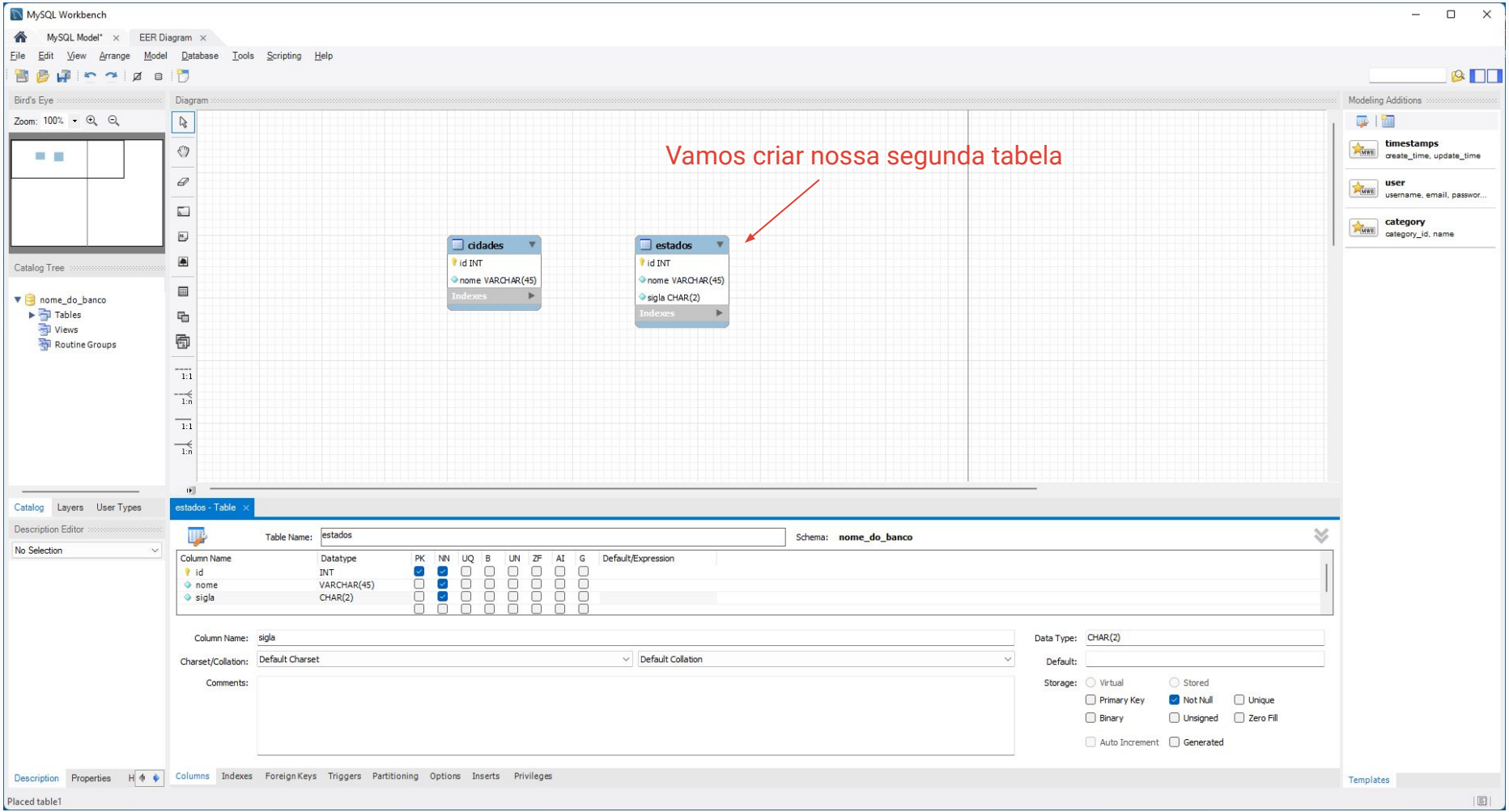

Aba do modelo
Aba do diagrama
MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Catalog Layers User Types
Description Editor
Description Properties
Diagram
Área da tabelas do nosso diagrama EER
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
Templates
Ready

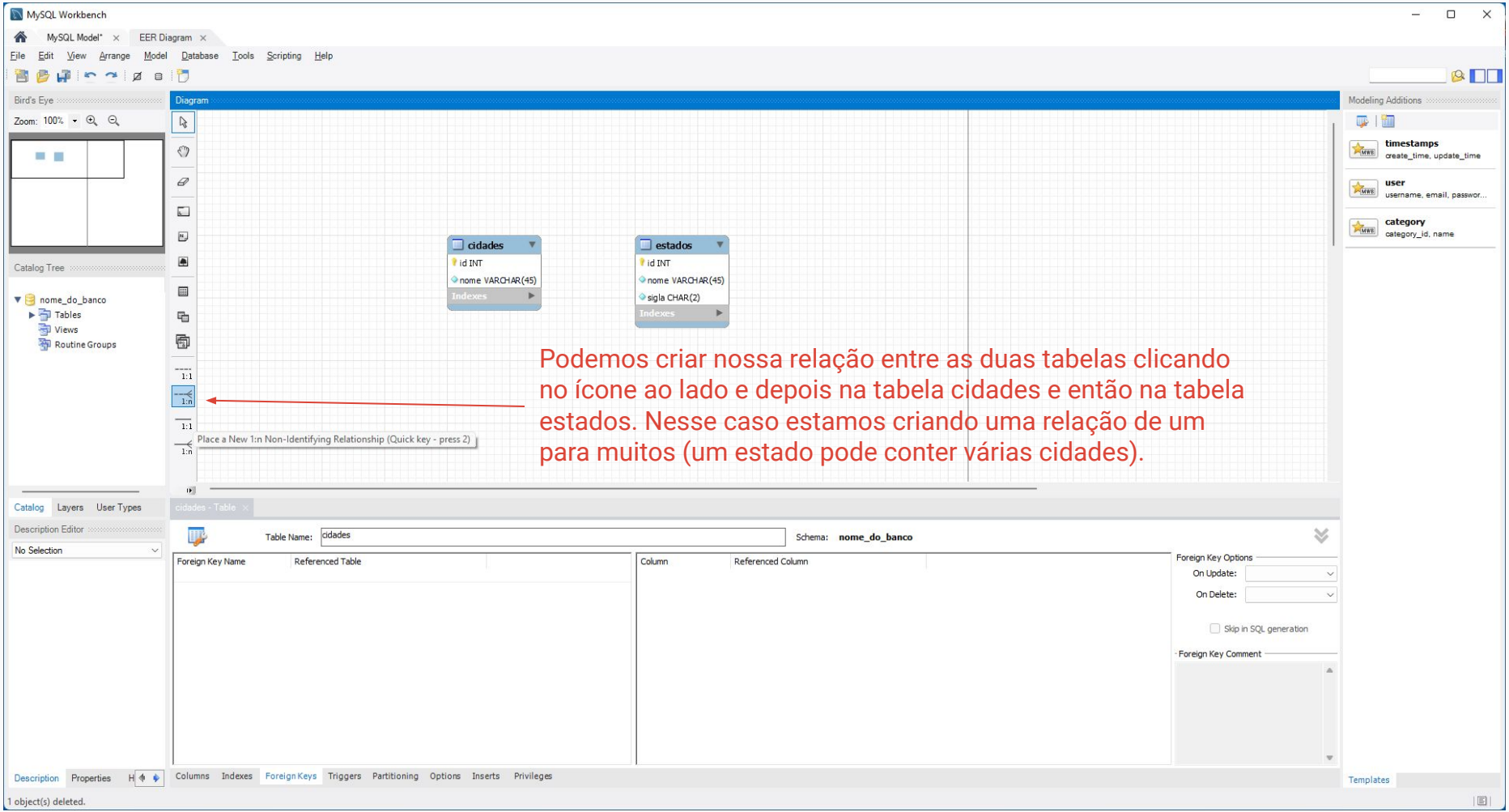

MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Description Editor
No Selection
Model Overview
Add Diagram
EER Diagram
Voltando para a aba do modelo, é possível visualizar todos os diagramas. ATENÇÃO: o modelo do nosso banco de dados pode conter vários diagramas, caso seja necessário.
Physical Schemas
nome_do_banco
MySQL Schema
Tables (0 items)
Add Table
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Description
User Types List
Type
Definition
User Types
History
Templates
Ready

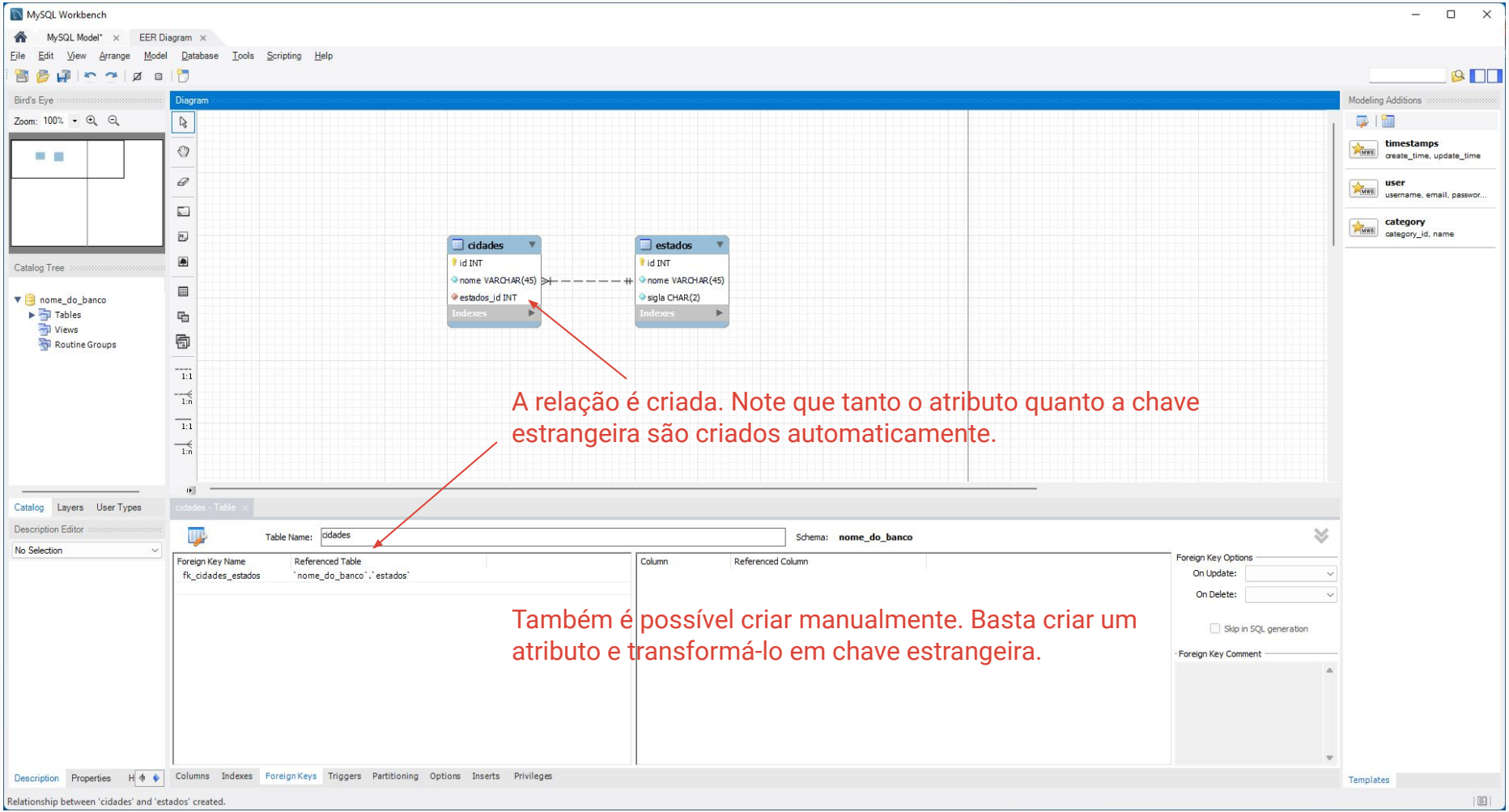
Criando um diagrama EER para o nosso modelo

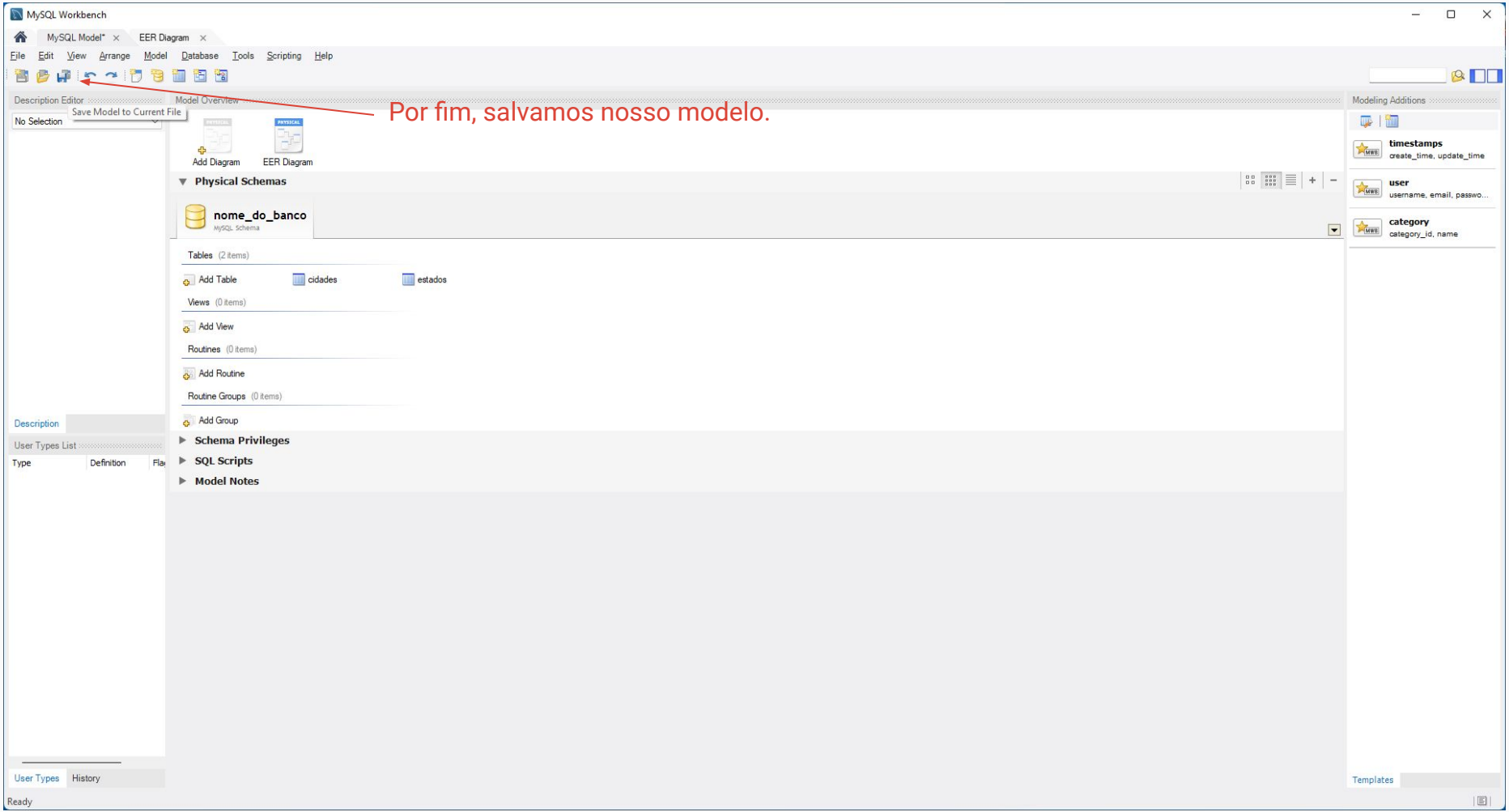

MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Catalog Layers User Types
Description Editor
table1: Table
Description Properties
Diagram
Criando nossa primeira tabela.
table1
Place a New Table (Quick key - press T)
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
Templates
Placed table1


MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Diagram
Clicando duas vezes sobre a tabela, é possível visualizar todas as informações referentes a ela.
cidades
id INT
nome VARCHAR(45)
Indexes
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Catalog Layers User Types
Description Editor
No Selection
cidades - Table
Table Name: cidades
Schema: nome_do_banco
Column Name Datatype PK NN UQ B UN ZF AI G Default/Expression
id INT
nome VARCHAR(45)
Column Name:
Charset/Collation: Default Charset Default Collation
Comments:
Data Type:
Expression:
Storage: Virtual Stored
Primary Key Not Null Unique
Binary Unsigned Zero Fill
Auto Increment Generated
Na aba colunas é possível editar o nome da nossa tabela e também seus atributos.
Description Properties
Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges
Templates
Placed table1

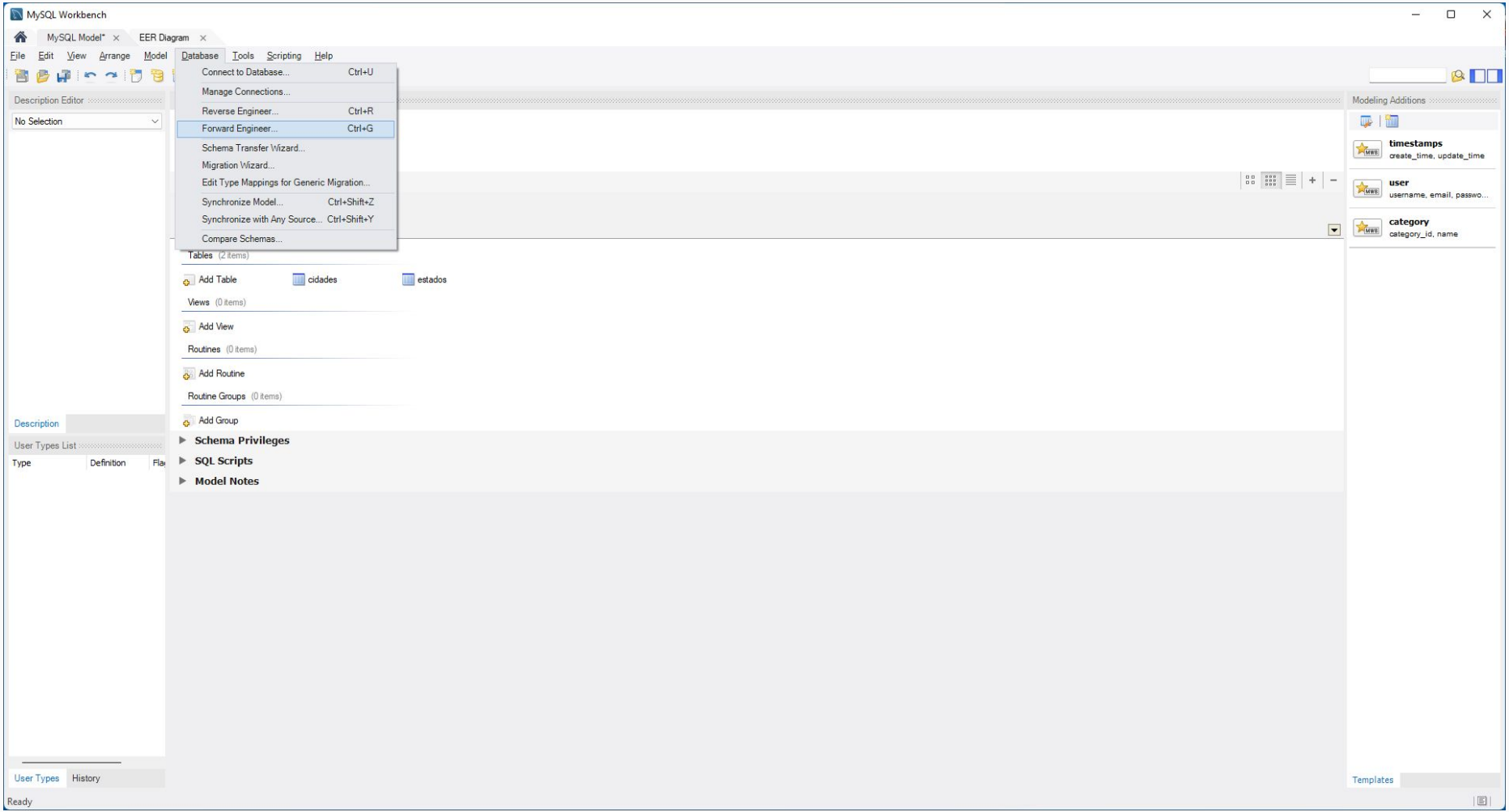

MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Diagram
Vamos criar nossa segunda tabela
cidades
id INT
nome VARCHAR(45)
Indexes
estados
id INT
nome VARCHAR(45)
sigla CHAR(2)
Indexes
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Catalog Layers User Types
Description Editor
No Selection
estados - Table
Table Name: estados
Schema: nome_do_banco
Column Name Datatype PK NN UQ B UN ZF AI G Default/Expression
id INT
nome VARCHAR(45)
sigla CHAR(2)
Column Name: sigla
Charset/Collation: Default Charset Default Collation
Comments:
Data Type: CHAR(2)
Default:
Storage: Virtual Stored
Primary Key Not Null Unique
Binary Unsigned Zero Fill
Auto Increment Generated
Description Properties
Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges
Templates
Placed table1


MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Diagram
cidades
id INT
nome VARCHAR(45)
Indexes
estados
id INT
nome VARCHAR(45)
sigla CHAR(2)
Indexes
1:1
1:n
1:1
1:n
Place a New 1:n Non-Identifying Relationship (Quick key - press 2)
Podemos criar nossa relação entre as duas tabelas clicando no ícone ao lado e depois na tabela cidades e então na tabela estados. Nesse caso estamos criando uma relação de um para muitos (um estado pode conter várias cidades).
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
Catalog Layers User Types
Description Editor
No Selection
cidades - Table
Table Name: cidades
Schema: nome_do_banco
Foreign Key Name
Referenced Table
Column
Referenced Column
Foreign Key Options
On Update:
On Delete:
Skip in SQL generation
Foreign Key Comment
Description Properties
Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges
Templates
1 object(s) deleted.


MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Bird's Eye
Zoom: 100%
Catalog Tree
nome_do_banco
Tables
Views
Routine Groups
Diagram
cidades
id INT
nome VARCHAR(45)
estados_id INT
Indexes
estados
id INT
nome VARCHAR(45)
sigla CHAR(2)
Indexes
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwor...
category
category_id, name
A relação é criada. Note que tanto o atributo quanto a chave estrangeira são criados automaticamente.
Catalog Layers User Types
Description Editor
No Selection
cidades - Table
Table Name: cidades
Schema: nome_do_banco
Foreign Key Name
Referenced Table
fk_cidades_estados
`nome_do_banco`.`estados`
Column
Referenced Column
Foreign Key Options
On Update:
On Delete:
Skip in SQL generation
Foreign Key Comment
Também é possível criar manualmente. Basta criar um atributo e transformá-lo em chave estrangeira.
Description Properties
Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges
Templates
Relationship between 'cidades' and 'estados' created.


MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Description Editor
No Selection
Save Model to Current File
Model Overview
Add Diagram
EER Diagram
Physical Schemas
nome_do_banco
MySQL Schema
Tables (2 items)
Add Table
cidades
estados
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Description
User Types List
Type
Definition
User Types
History
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Templates
Ready
Por fim, salvamos nosso modelo.

Implementar um Banco de Dados MySQL a partir de um modelo.


MySQL Workbench
MySQL Model*
EER Diagram
File Edit View Arrange Model Database Tools Scripting Help
Connect to Database... Ctrl+U
Manage Connections...
Reverse Engineer... Ctrl+R
Forward Engineer... Ctrl+G
Schema Transfer Wizard...
Migration Wizard...
Edit Type Mappings for Generic Migration...
Synchronize Model... Ctrl+Shift+Z
Synchronize with Any Source... Ctrl+Shift+Y
Compare Schemas...
Description Editor
No Selection
Modeling Additions
timestamps
create_time, update_time
user
username, email, passwo...
category
category_id, name
Tables (2 items)
Add Table
cidades
estados
Views (0 items)
Add View
Routines (0 items)
Add Routine
Routine Groups (0 items)
Add Group
Schema Privileges
SQL Scripts
Model Notes
Description
User Types List
Type
Definition
User Types
History
Templates
Ready

Forward Engineer to Database

- **Connection Options**
- Options
- Select Objects
- Review SQL Script
- Commit Progress

Set Parameters for Connecting to a DBMS

Stored Connection: — Select from saved connection settings

Connection Method: Standard (TCP/IP) — Method to use to connect to the RDBMS

Parameters | SSL | Advanced

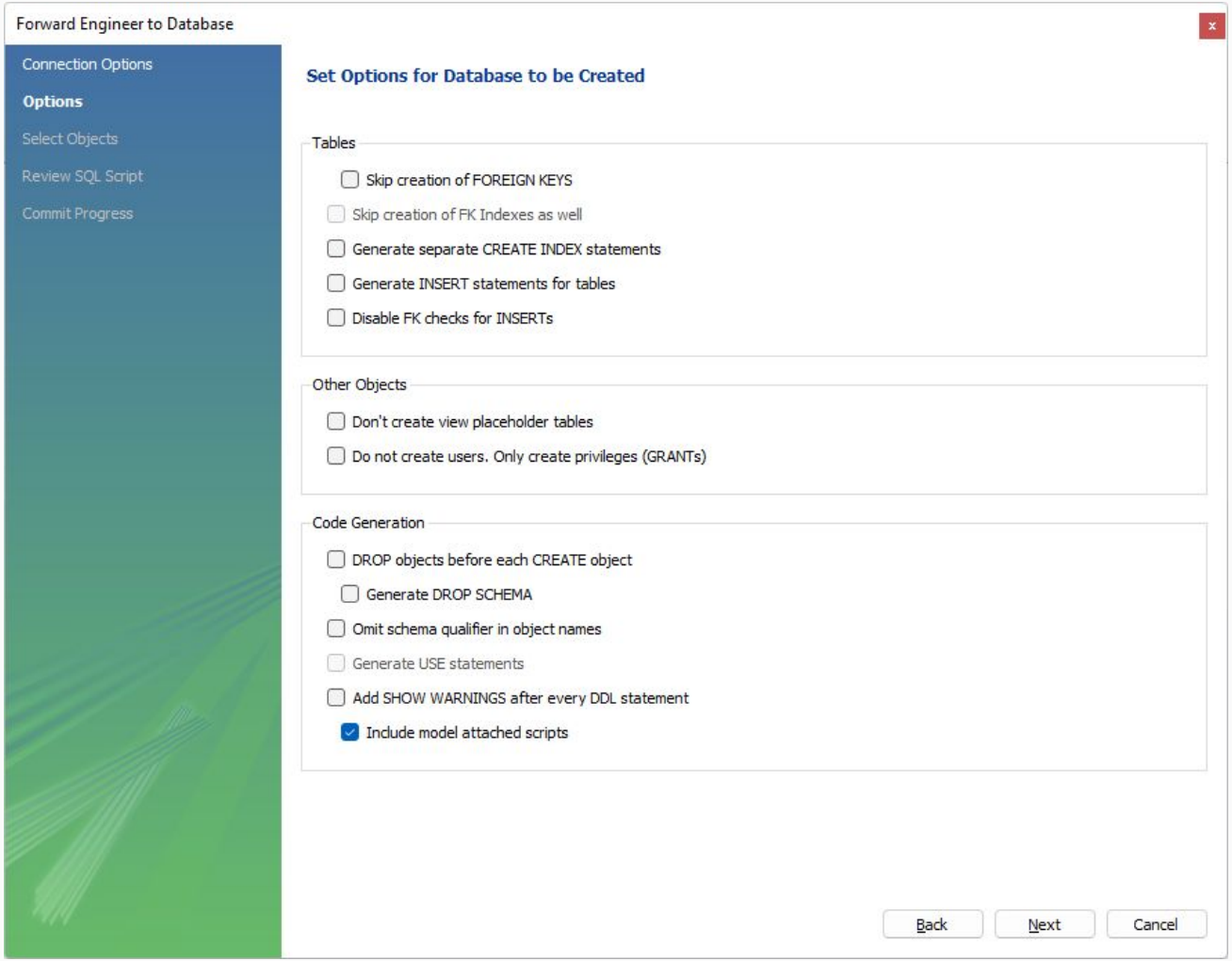
Hostname: 127.0.0.1 Port: 3306 — Name or IP address of the server host - and TCP/IP port.

Username: root — Name of the user to connect with.

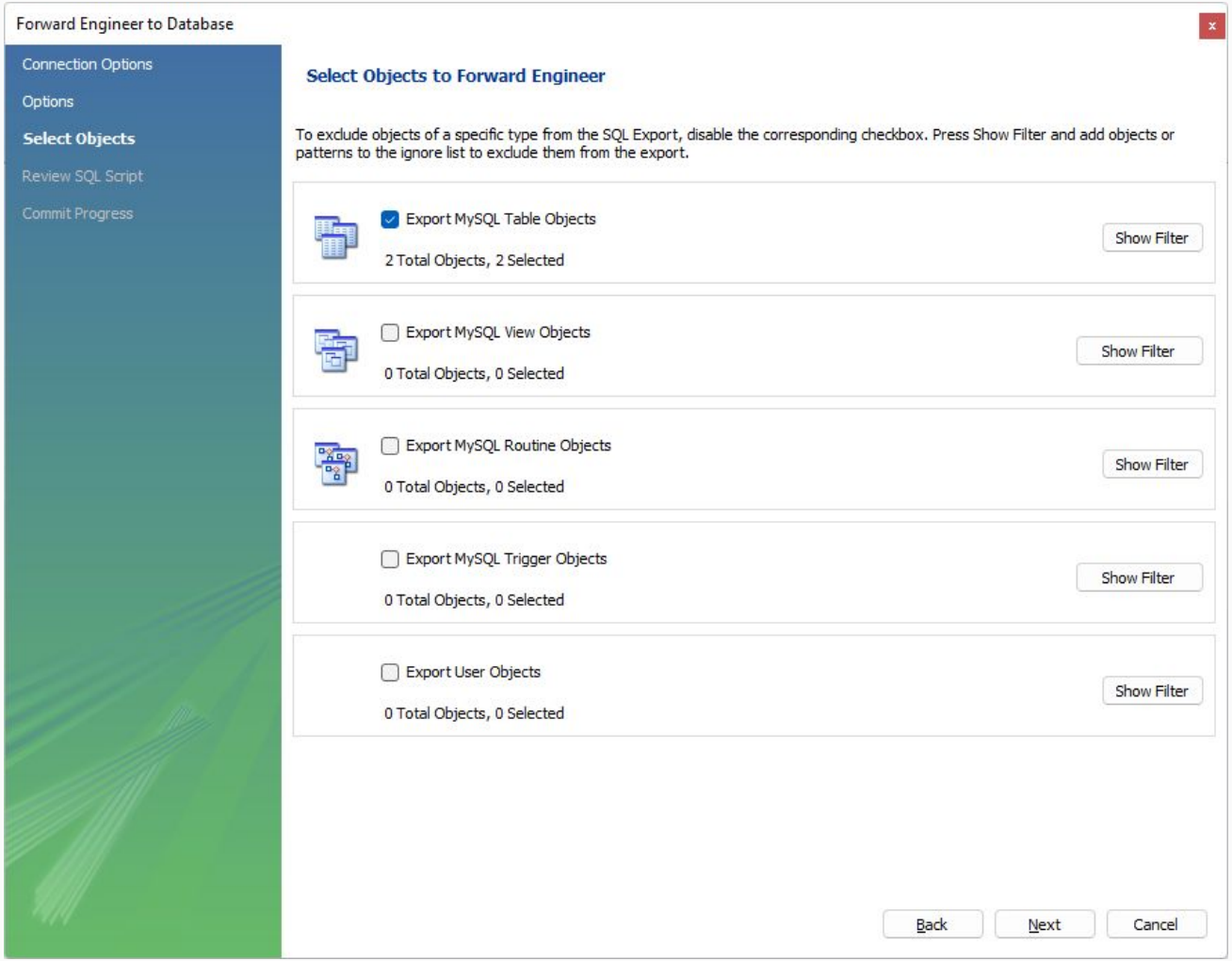
Password: Store in Vault ... Clear — The user's password. Will be requested later if it's not set.

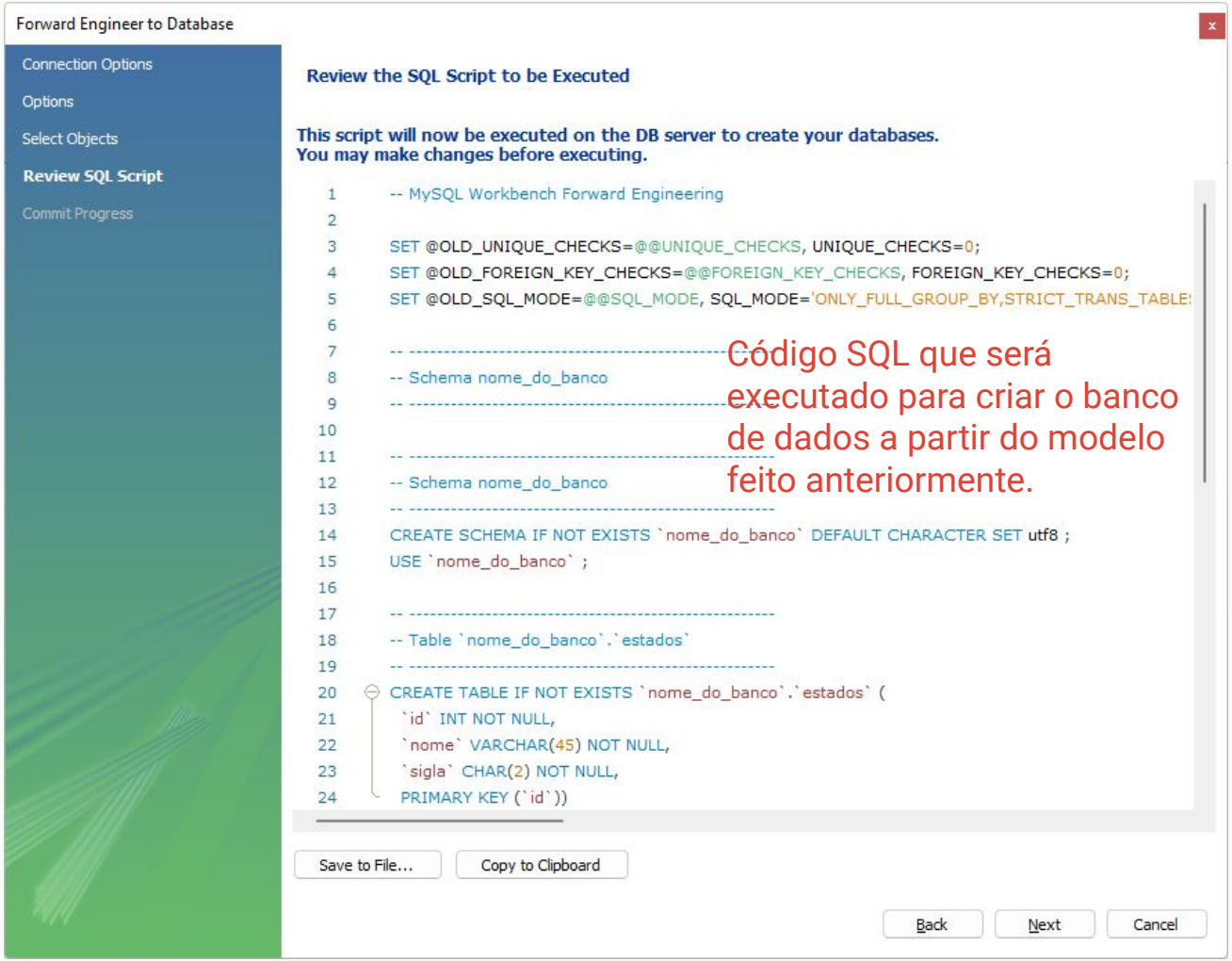
Default Schema: — The schema to use as default schema. Leave blank to select it later.

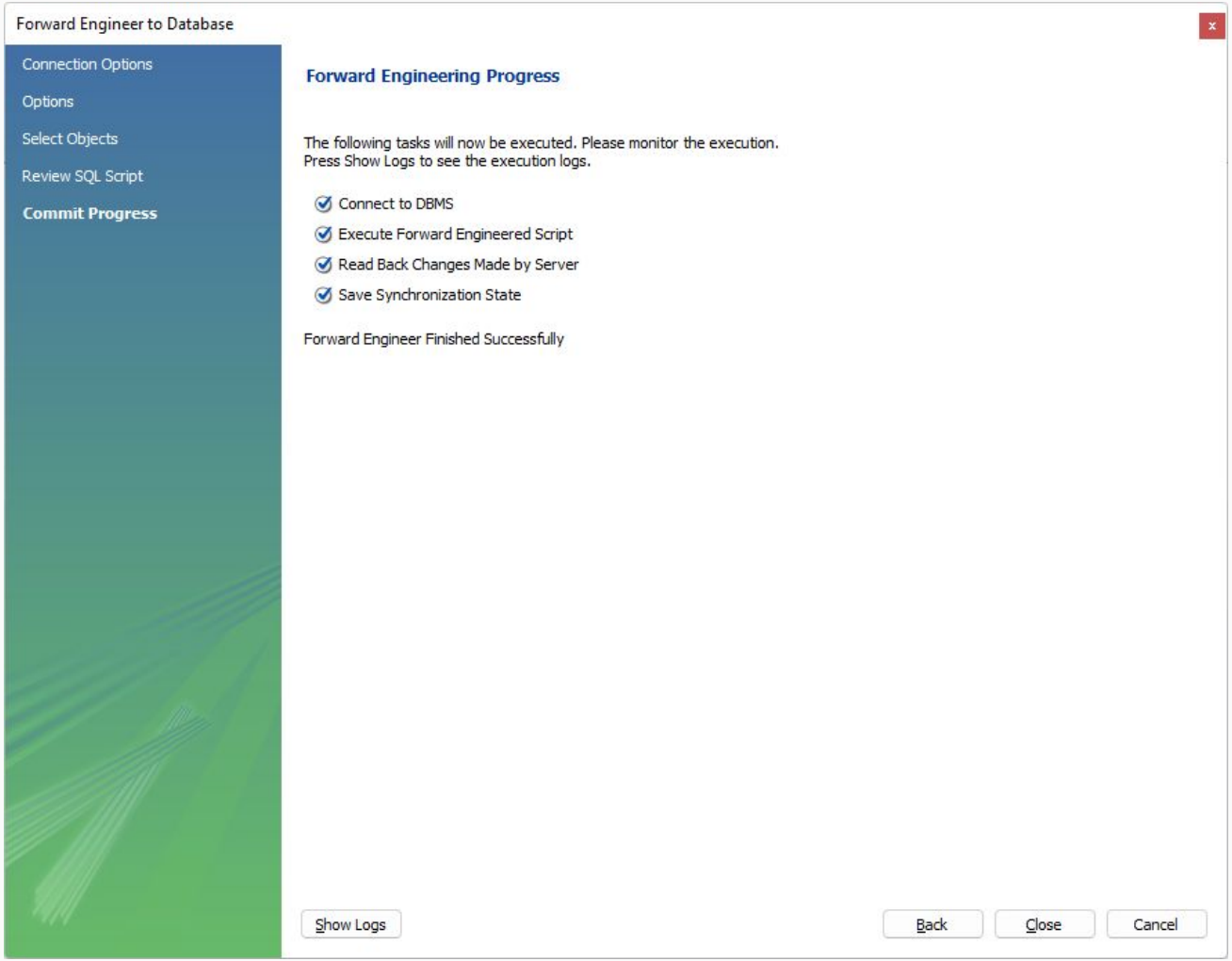
Back | Next | Cancel

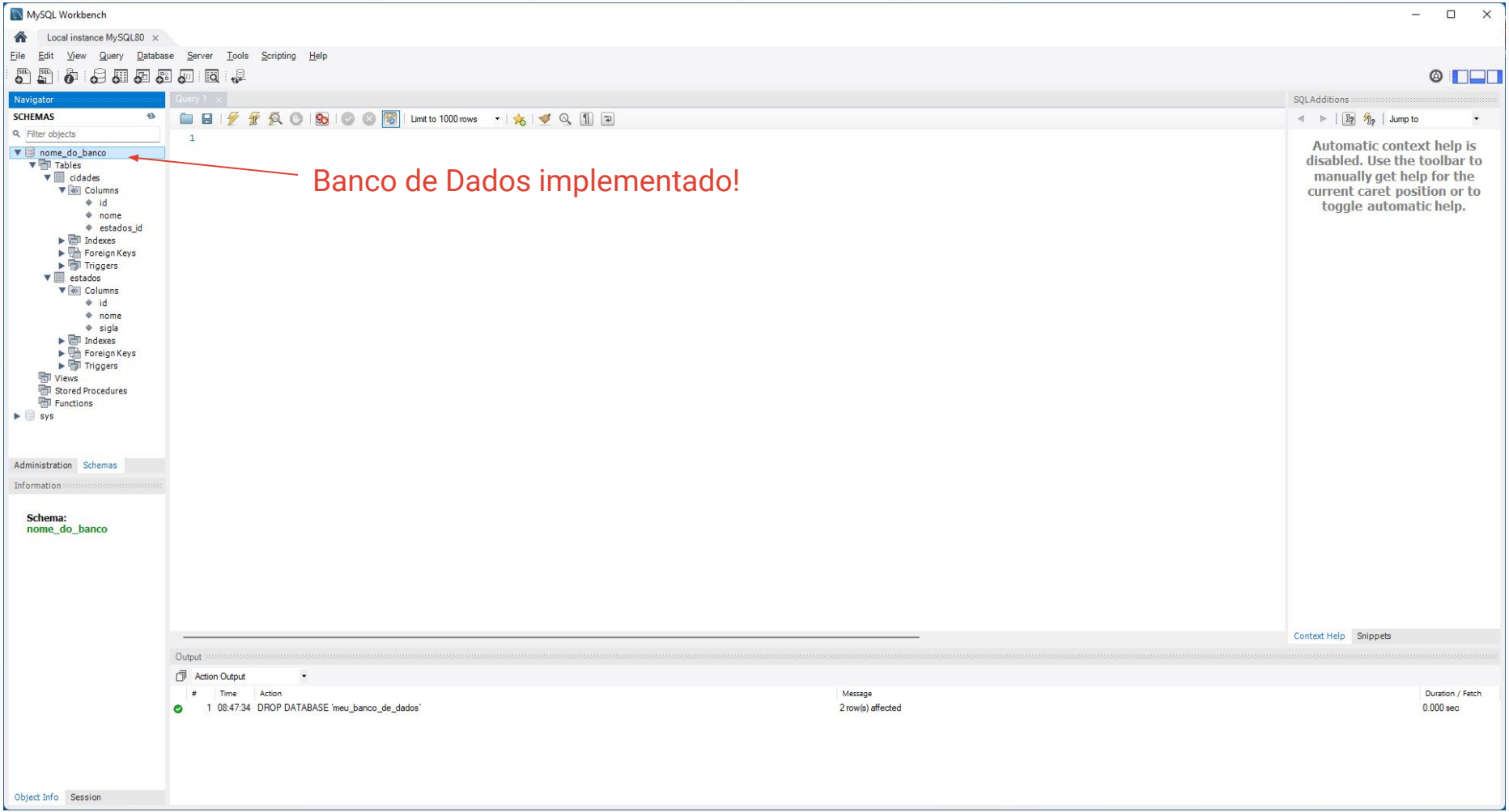

Forward Engineer to Database
Connection Options
Options
Select Objects
Review SQL Script
Commit Progress
Set Options for Database to be Created
Tables
Skip creation of FOREIGN KEYS
Skip creation of FK Indexes as well
Generate separate CREATE INDEX statements
Generate INSERT statements for tables
Disable FK checks for INSERTs
Other Objects
Don't create view placeholder tables
Do not create users. Only create privileges (GRANTs)
Code Generation
DROP objects before each CREATE object
Generate DROP SCHEMA
Omit schema qualifier in object names
Generate USE statements
Add SHOW WARNINGS after every DDL statement
Include model attached scripts
Back
Next
Cancel


Connect to MySQL Server
Please enter password for the following service:
Service: Mysql@127.0.0.1:3306
User: root
Password:
Save password in vault
OK
Cancel


Forward Engineer to Database
Connection Options
Options
Select Objects
Review SQL Script
Commit Progress
Select Objects to Forward Engineer
To exclude objects of a specific type from the SQL Export, disable the corresponding checkbox. Press Show Filter and add objects or patterns to the ignore list to exclude them from the export.
Export MySQL Table Objects
2 Total Objects, 2 Selected
Show Filter
Export MySQL View Objects
0 Total Objects, 0 Selected
Show Filter
Export MySQL Routine Objects
0 Total Objects, 0 Selected
Show Filter
Export MySQL Trigger Objects
0 Total Objects, 0 Selected
Show Filter
Export User Objects
0 Total Objects, 0 Selected
Show Filter
Back
Next
Cancel


Forward Engineer to Database
Connection Options
Options
Select Objects
Review SQL Script
Commit Progress
Review the SQL Script to be Executed
This script will now be executed on the DB server to create your databases.
You may make changes before executing.
1 -- MySQL Workbench Forward Engineering
2
3 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0;
4 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0;
5 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES
6
7 -- ---
8 -- Schema nome_do_banco
9 -- ---
10
11 -- ---
12 -- Schema nome_do_banco
13 -- ---
14 CREATE SCHEMA IF NOT EXISTS `nome_do_banco` DEFAULT CHARACTER SET utf8 ;
15 USE `nome_do_banco` ;
16
17 -- ---
18 -- Table `nome_do_banco`.`estados`
19 -- ---
20 CREATE TABLE IF NOT EXISTS `nome_do_banco`.`estados` (
21 `id` INT NOT NULL,
22 `nome` VARCHAR(45) NOT NULL,
23 `sigla` CHAR(2) NOT NULL,
24 PRIMARY KEY (`id`))
Código SQL que será executado para criar o banco de dados a partir do modelo feito anteriormente.
Save to File...
Copy to Clipboard
Back
Next
Cancel


Forward Engineer to Database
Connection Options
Options
Select Objects
Review SQL Script
Commit Progress
Forward Engineering Progress
The following tasks will now be executed. Please monitor the execution.
Press Show Logs to see the execution logs.
Connect to DBMS
Execute Forward Engineered Script
Read Back Changes Made by Server
Save Synchronization State
Forward Engineer Finished Successfully
Show Logs
Back
Close
Cancel


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
nome_do_banco
Tables
cidades
Columns
id
nome
estados_id
Indexes
Foreign Keys
Triggers
estados
Columns
id
nome
sigla
Indexes
Foreign Keys
Triggers
Views
Stored Procedures
Functions
sys
Administration Schemas
Information
Schema:
nome_do_banco
Object Info Session
Query 1
Limit to 1000 rows
1
Banco de Dados implementado!
SQLAdditions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Context Help Snippets
Output
Action Output
Time Action Message Duration / Fetch
1 08:47:34 DROP DATABASE 'meu_banco_de_dados' 2 row(s) affected 0.000 sec