



INSTITUTO FEDERAL  
DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA  
Bahia

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# Banco de Dados

Criando o Modelo Físico no Workbench.

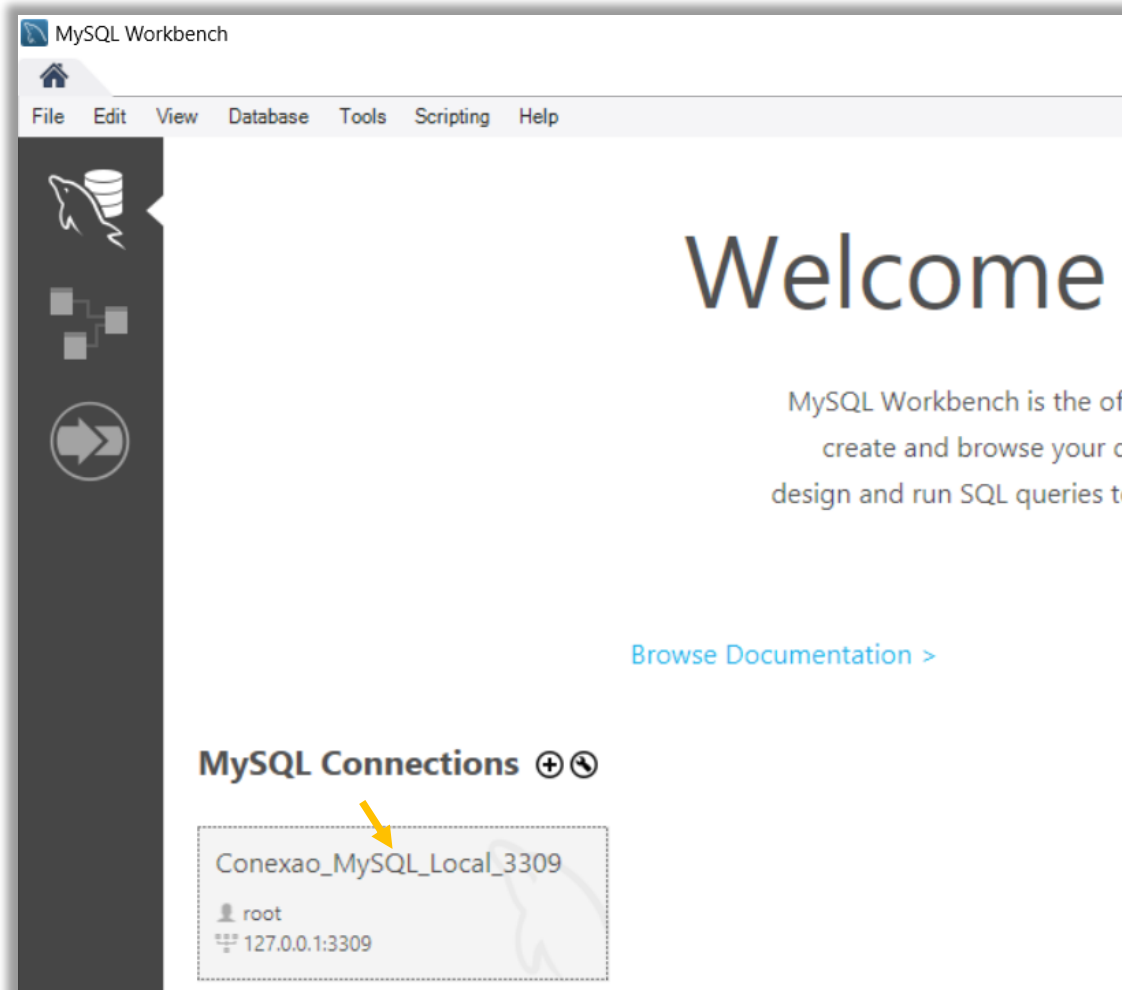


# Roteiro

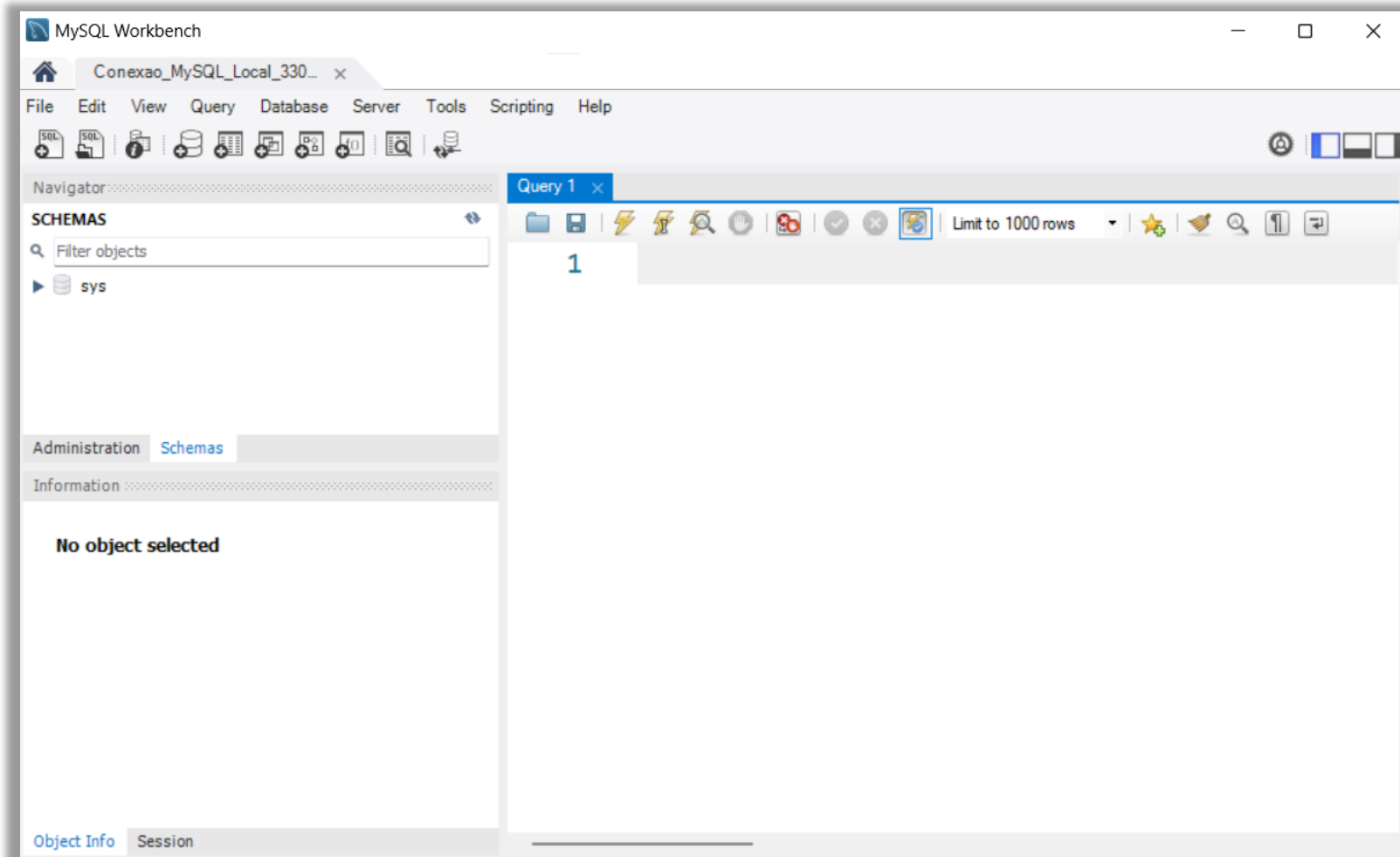
- Criando o Modelo Físico no Workbench:
  - Workbench:
    - Conexão com o MySQL;
    - Criando um Banco de Dados;
    - Tabelas e Relacionamentos;
    - Exibindo Dados da Tabela;
    - Ver SQL de Criação em Tabela Existente;
    - Excluindo Tabela;
    - Excluindo Banco de Dados;
    - Atividades.



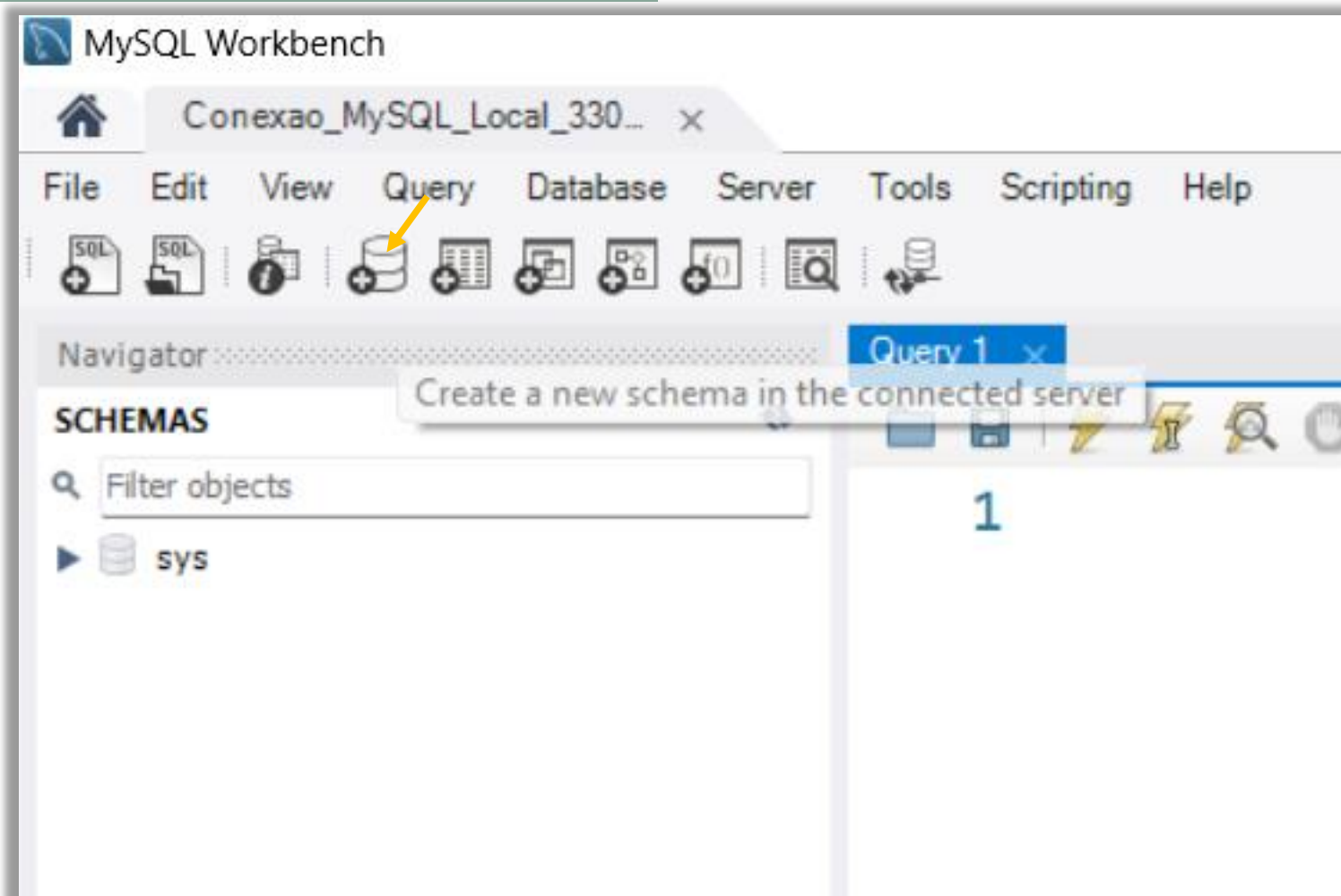
# Workbench: Conexão com o MySQL



# Workbench: Conexão com o MySQL





# Workbench: Criando um Banco de Dados



# Workbench: Criando um Banco de Dados

Query 1 BancoABC - Schema

 Name: BancoABC 

Rename References


Charset/Collation: Default Charset Default Collator

Specify the name of the schema here. You can use any

Refactor model, changing all references found in view, triggers, stored procedures and functions from the old schema name to the

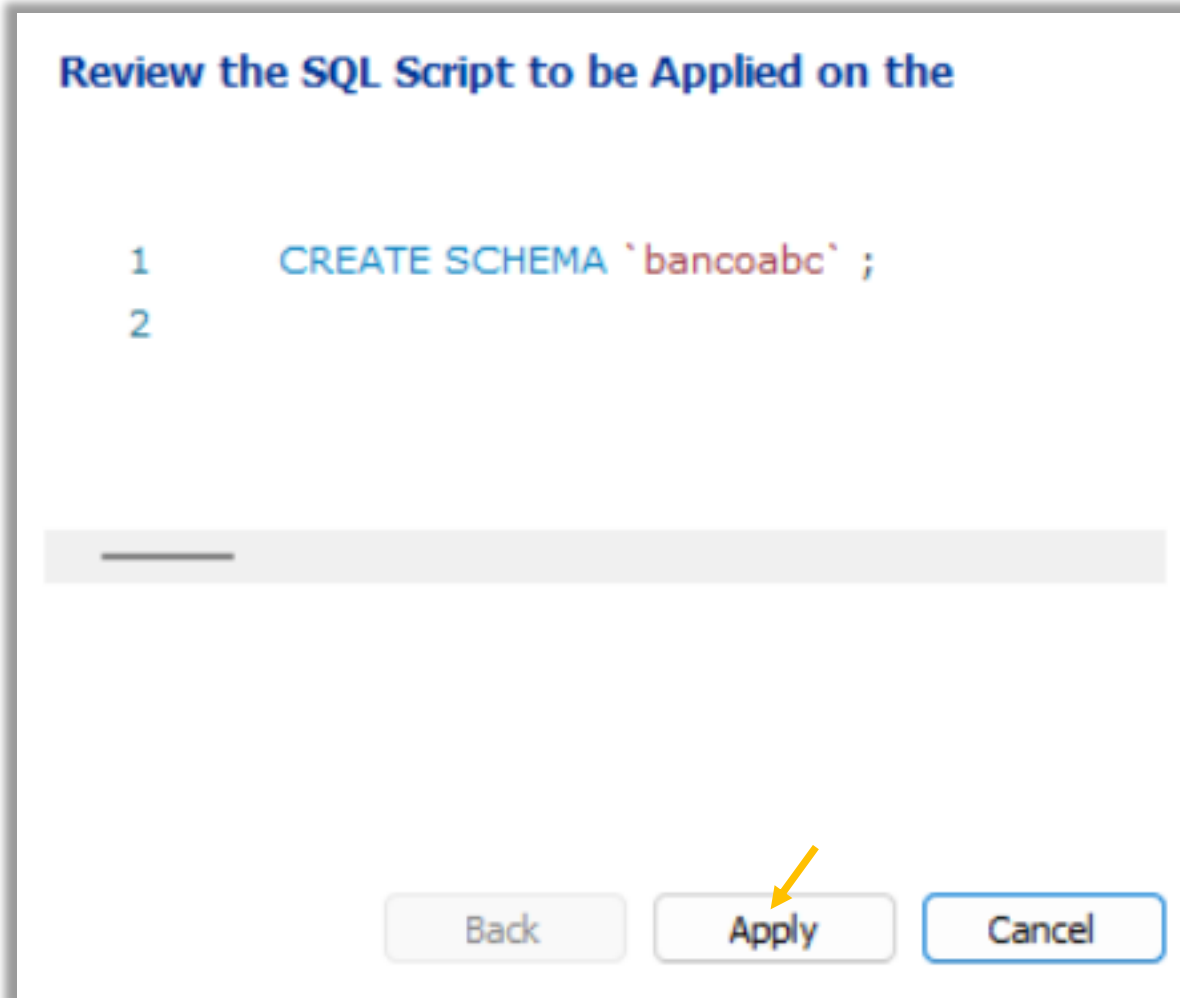
The character set and its collation selected here will be used

Schema

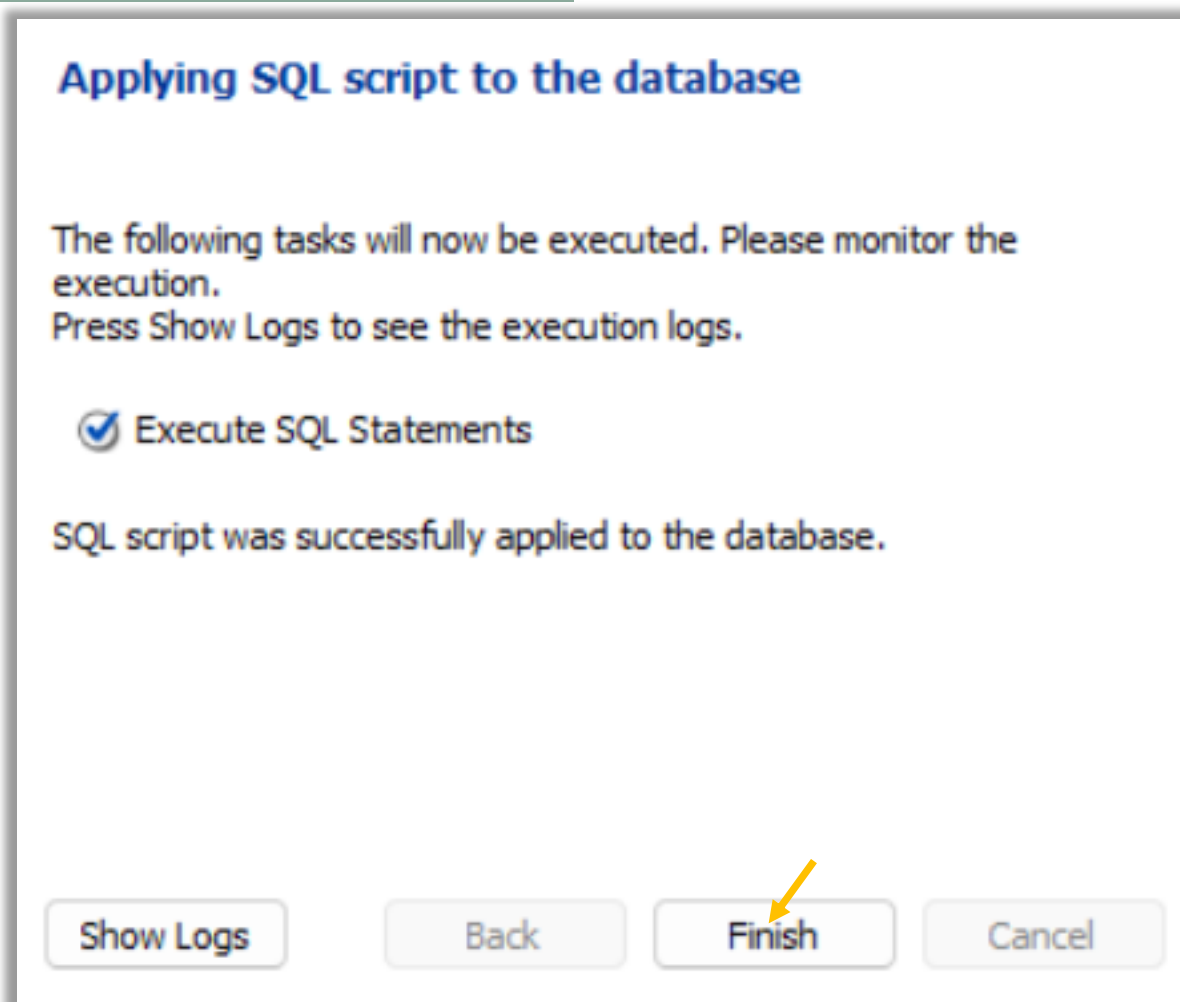
 Apply Revert



# Workbench: Criando um Banco de Dados

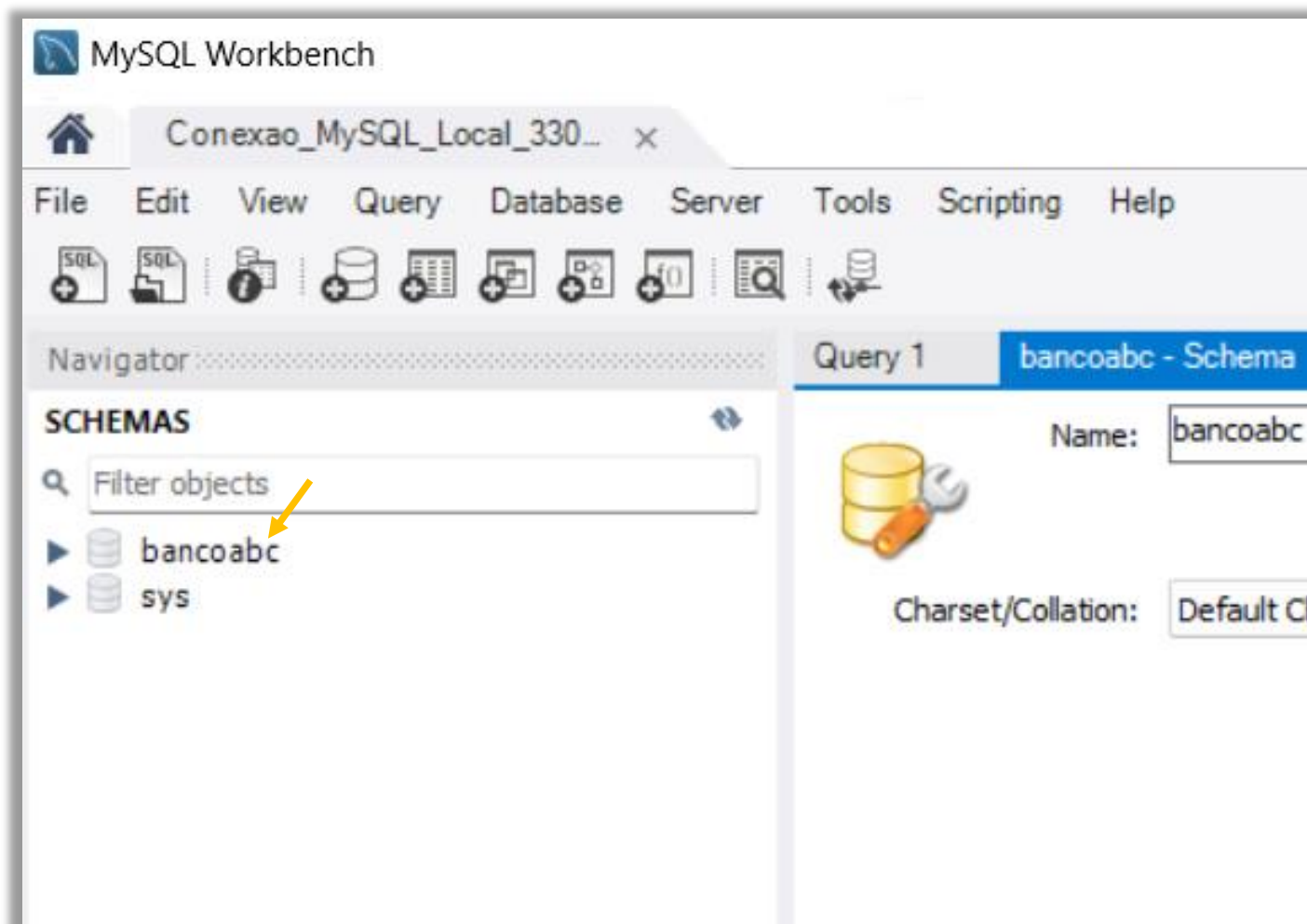


# Workbench: Criando um Banco de Dados

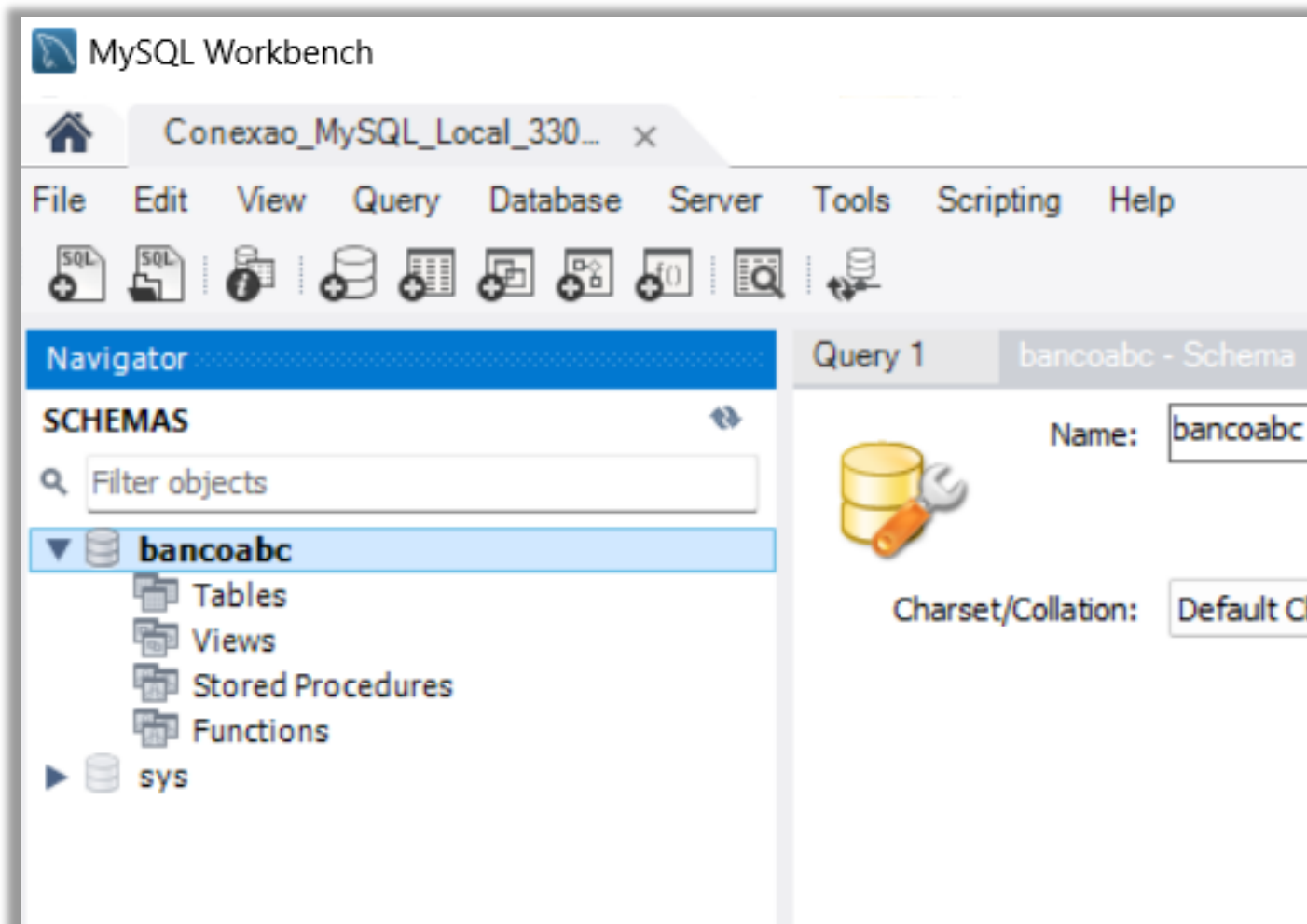




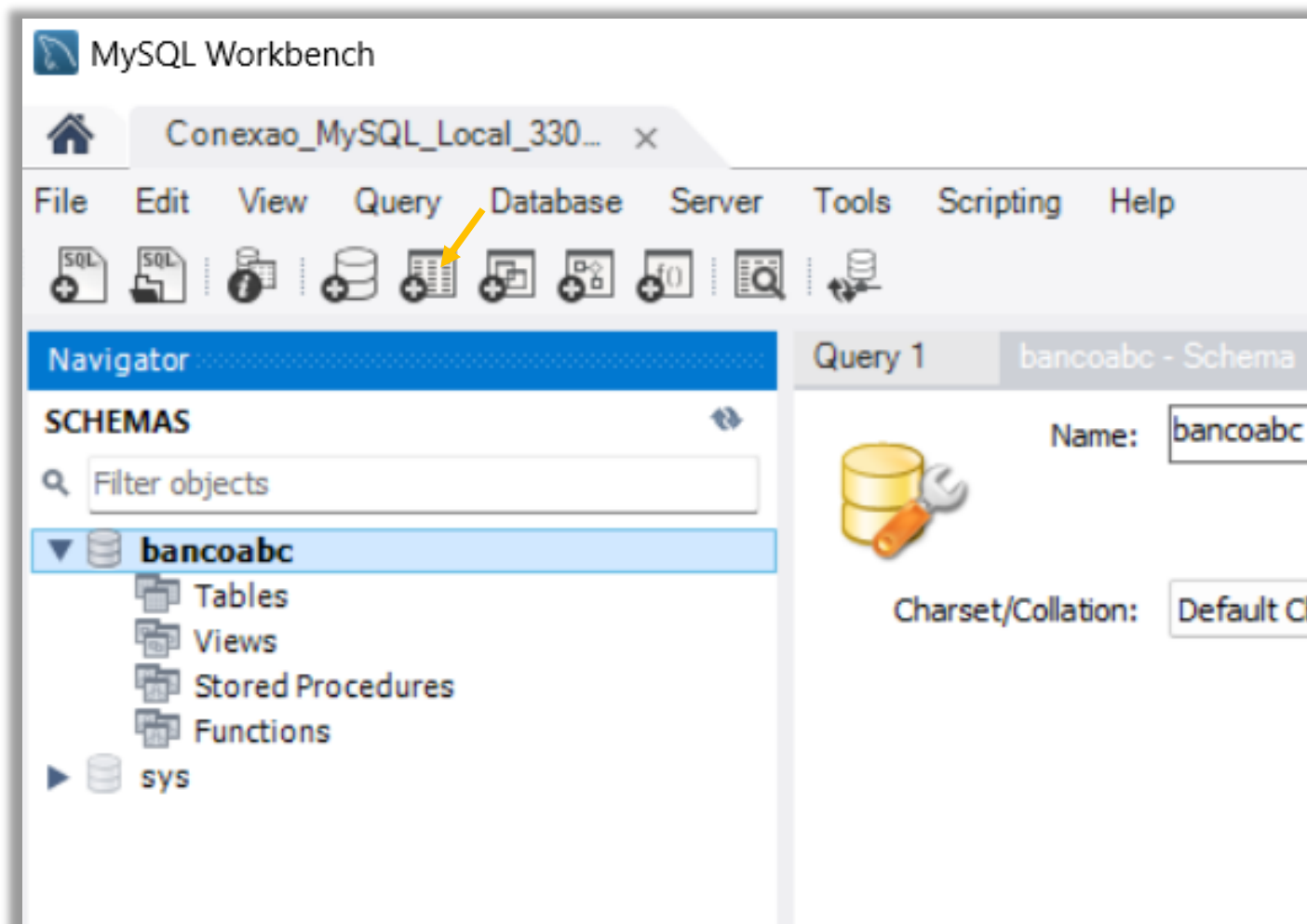
# Workbench: Criando um Banco de Dados



# Workbench: Criando um Banco de Dados



# Workbench: Tabelas e Relacionamentos



# Workbench: Tabelas e Relacionamentos










Table Name:

Schema: **bancoabc**

Charset/Collation:

Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
 id	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
 nome	VARCHAR(50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 telefone	BIGINT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 email	VARCHAR(40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 cpf	BIGINT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 observacoes	VARCHAR(100)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Column Name:

Data Type:

Charset/Collation:

Default:

Comments:

Storage: ☐ Virtual ☐ Stored

☒ Primary Key ☒ Not Null ☐ Unique

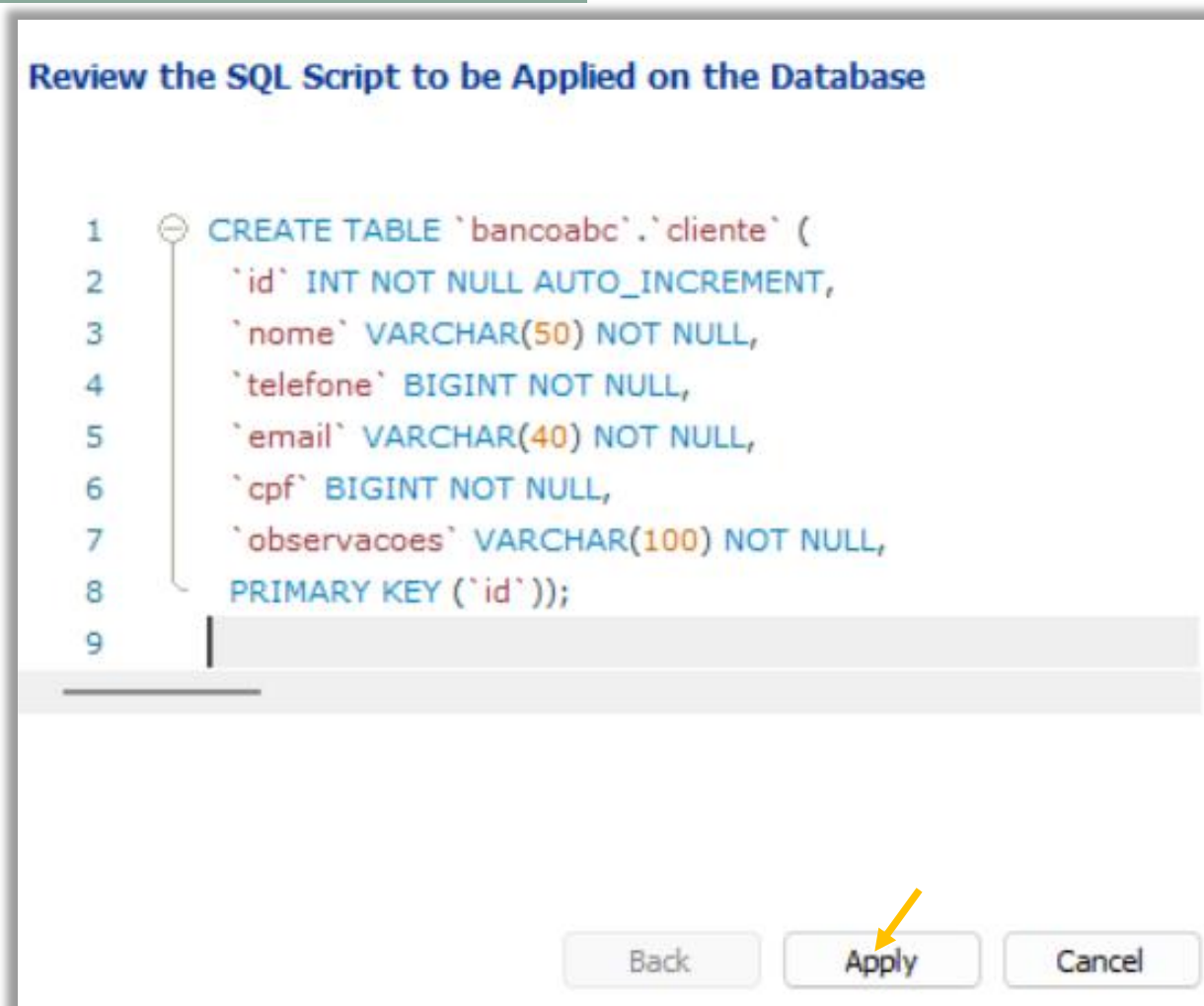
☐ Binary ☐ Unsigned ☐ Zero Fill

☒ Auto Increment ☐ Generated

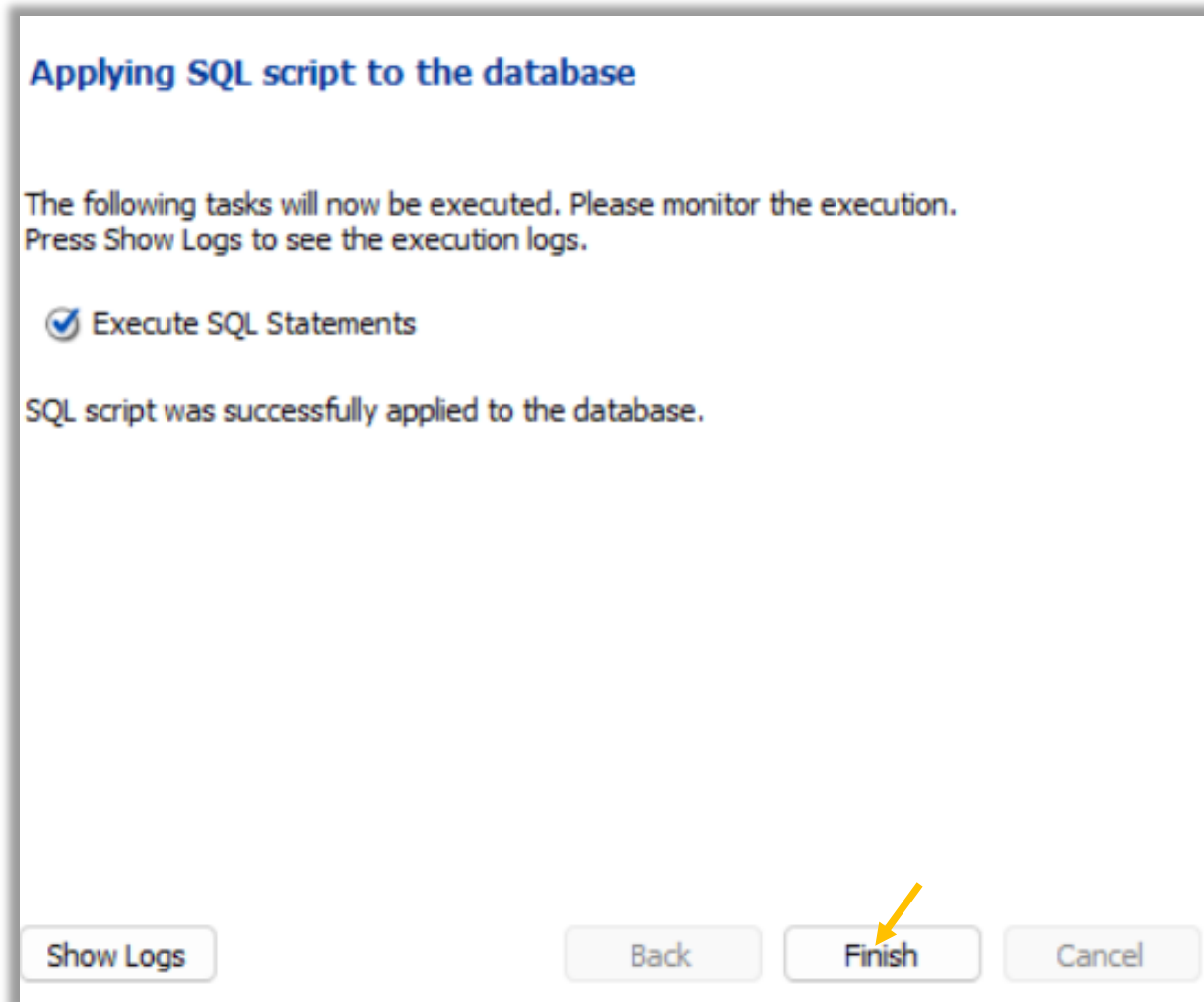
Columns Indexes Foreign Keys Triggers Partitioning Options

Apply Revert

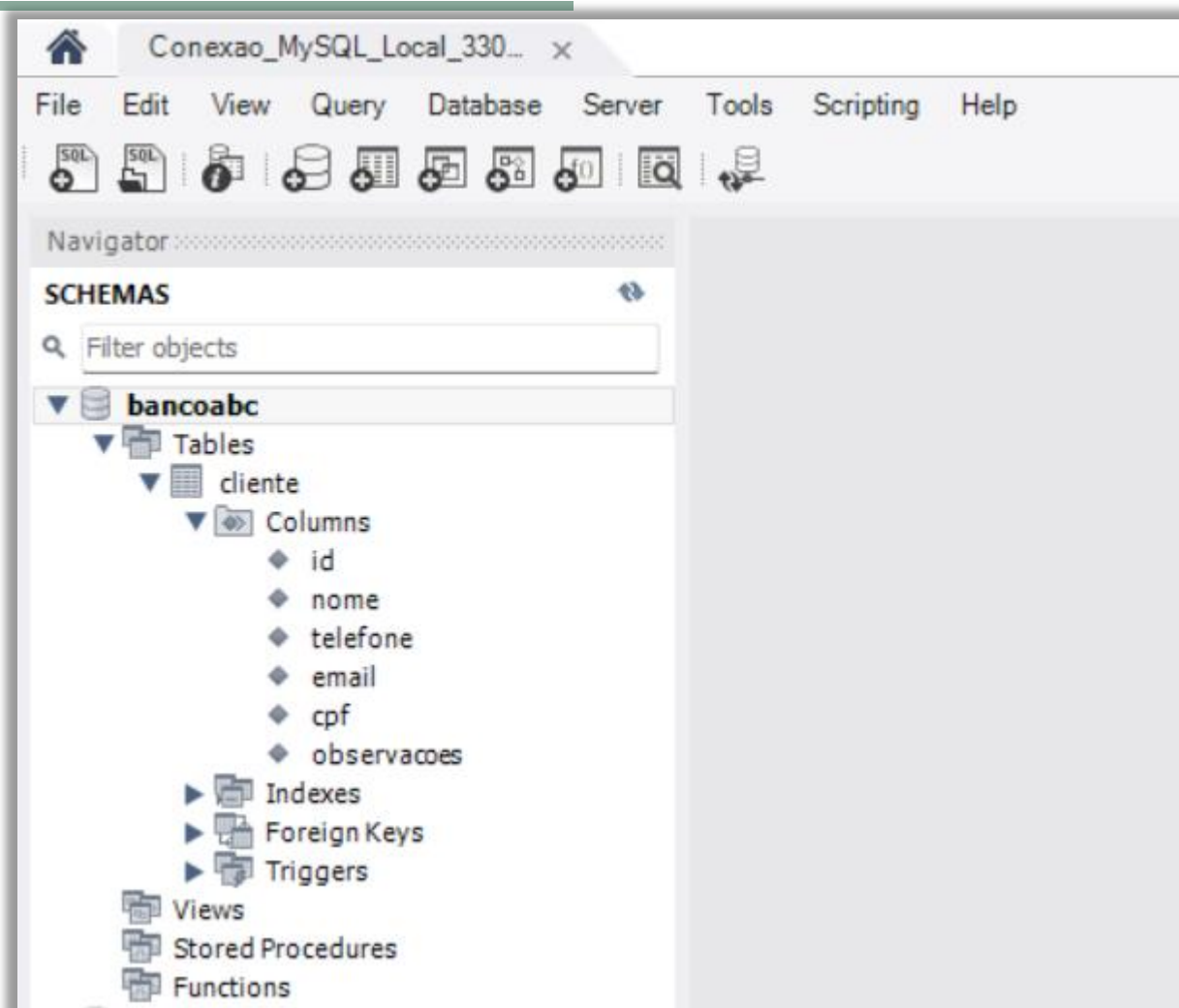
# Workbench: Tabelas e Relacionamentos



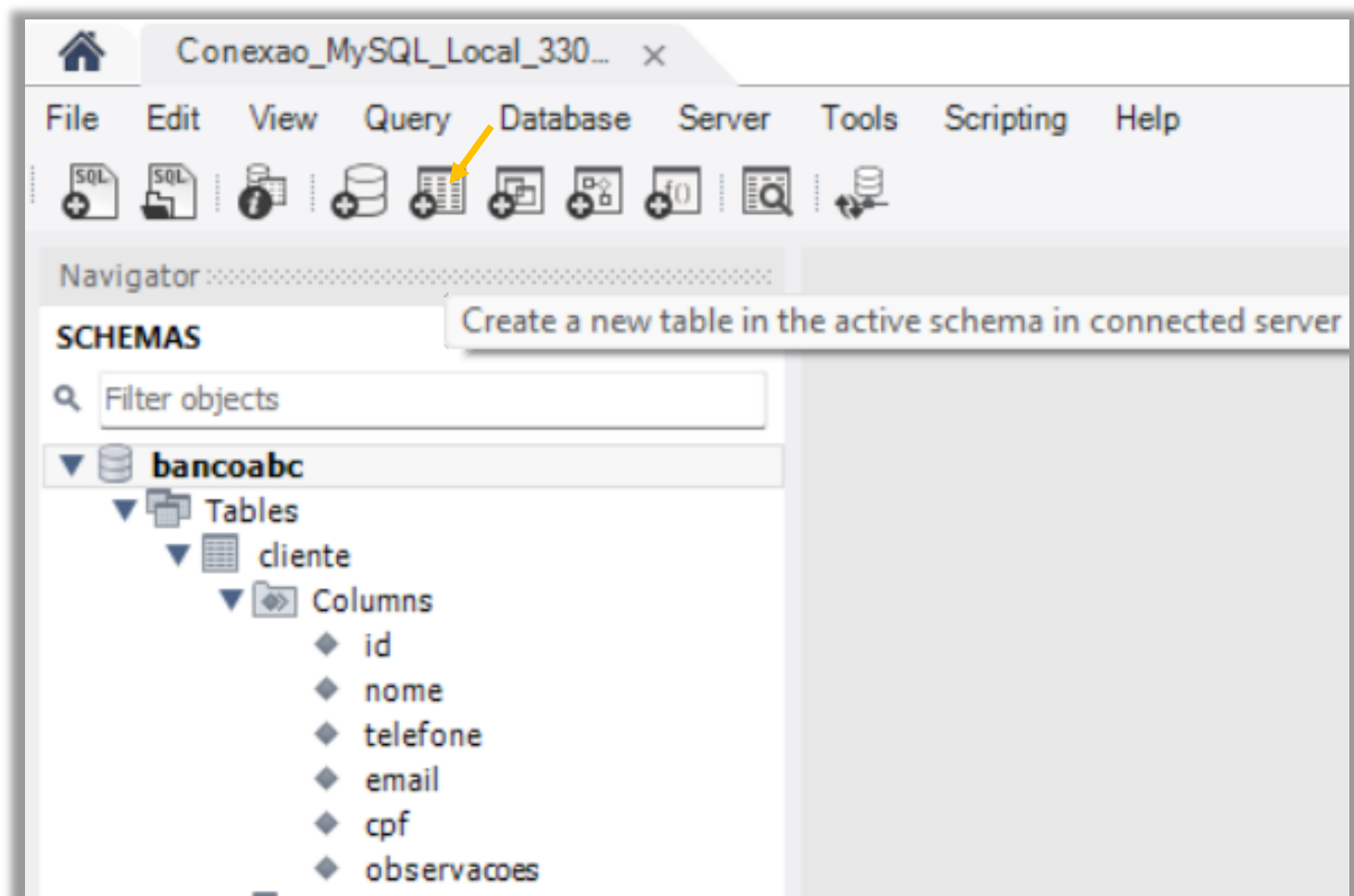
# Workbench: Tabelas e Relacionamentos



# Workbench: Tabelas e Relacionamentos



# Workbench: Tabelas e Relacionamentos





# Workbench: Tabelas e Relacionamentos









Table Name:

Schema: **bancoabc**

Charset/Collation:

Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
 id	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
 numero	BIGINT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 saldo	DOUBLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 limite	DOUBLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 clienteId	INT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Column Name:

Charset/Collation:

Comments:

Data Type:

Default:

Storage: ☐ Virtual ☐ Stored

☐ Primary Key ☒ Not Null ☐ Unique

☐ Binary ☐ Unsigned ☐ Zero Fill

☐ Auto Increment ☐ Generated

ColumnsIndexesForeign KeysTriggersPartitioningOptions

Apply

Revert

# Workbench: Tabelas e Relacionamentos




Table Name:  Schema: **bancoabc**

Charset/Collation:   Engine:

Comments:

Foreign Key Name	Referenced Table
FK_conta_cliente	`bancoabc`.`cliente`

Column	Referenced Column
<input type="checkbox"/> id	
<input type="checkbox"/> numero	
<input type="checkbox"/> saldo	
<input type="checkbox"/> limite	
<input checked="" type="checkbox"/> clienteId	id

Foreign Key Options

On Update:

On Delete:

☐ Skip in SQL generation

Foreign Key Comment:

Columns Indexes **Foreign Keys** Triggers Partitioning Options

# Workbench: Tabelas e Relacionamentos

Review the SQL Script to be Applied on the Database

```
1 CREATE TABLE `bancoabc`.`conta` (  
2   `id` INT NOT NULL AUTO_INCREMENT,  
3   `numero` BIGINT NOT NULL,  
4   `saldo` DOUBLE NOT NULL,  
5   `limite` DOUBLE NOT NULL,  
6   `clienteId` INT NOT NULL,  
7   PRIMARY KEY (`id`),  
8   INDEX `FK_conta_cliente_idx` (`clienteId` ASC) VISIBLE,  
9   CONSTRAINT `FK_conta_cliente`  
10  FOREIGN KEY (`clienteId`)  
11  REFERENCES `bancoabc`.`cliente` (`id`)  
12  ON DELETE NO ACTION  
13  ON UPDATE NO ACTION);
```

Back

Apply

Cancel



# Workbench: Tabelas e Relacionamentos

## Applying SQL script to the database

The following tasks will now be executed. Please monitor the execution.  
Press Show Logs to see the execution logs.

☒ Execute SQL Statements

SQL script was successfully applied to the database.

Show Logs

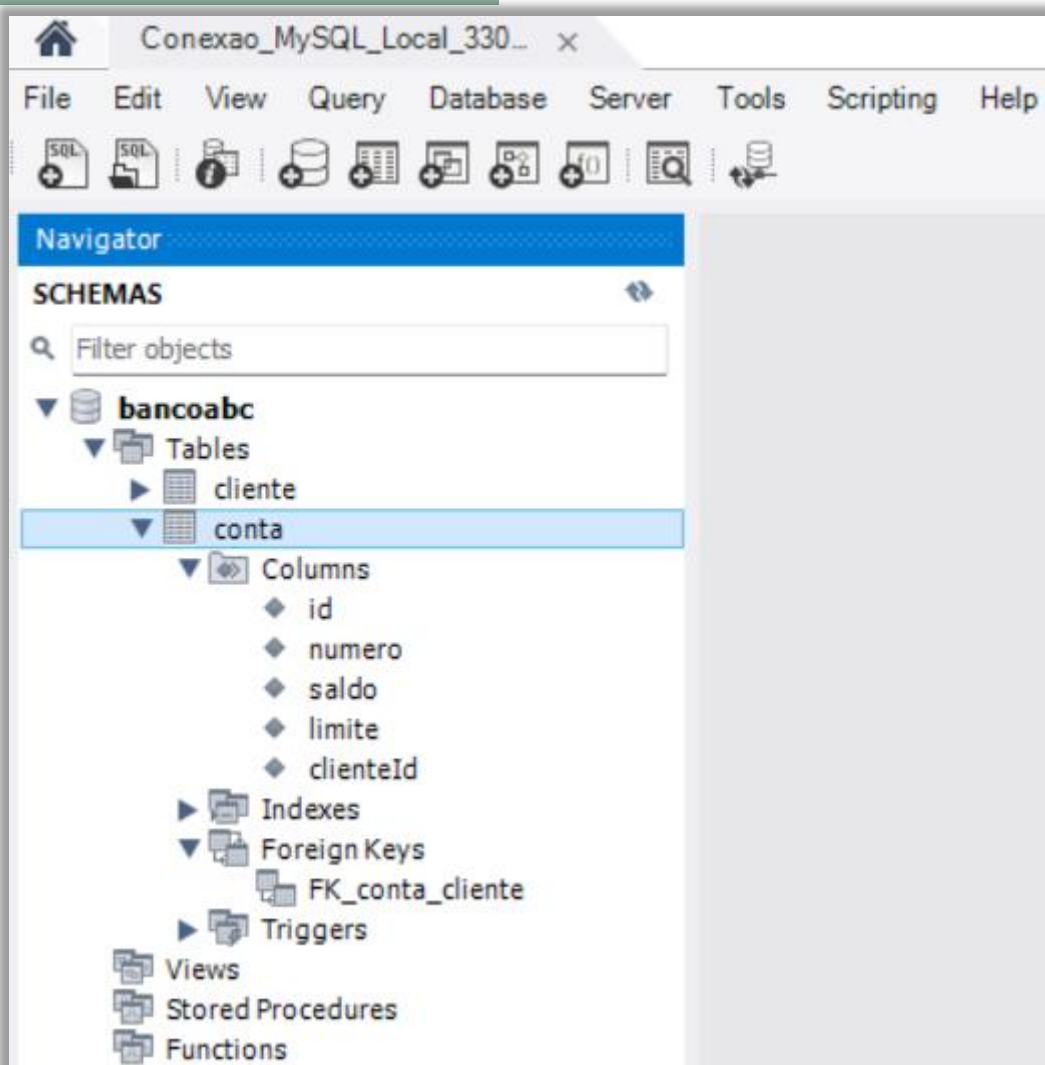
Back

Finish

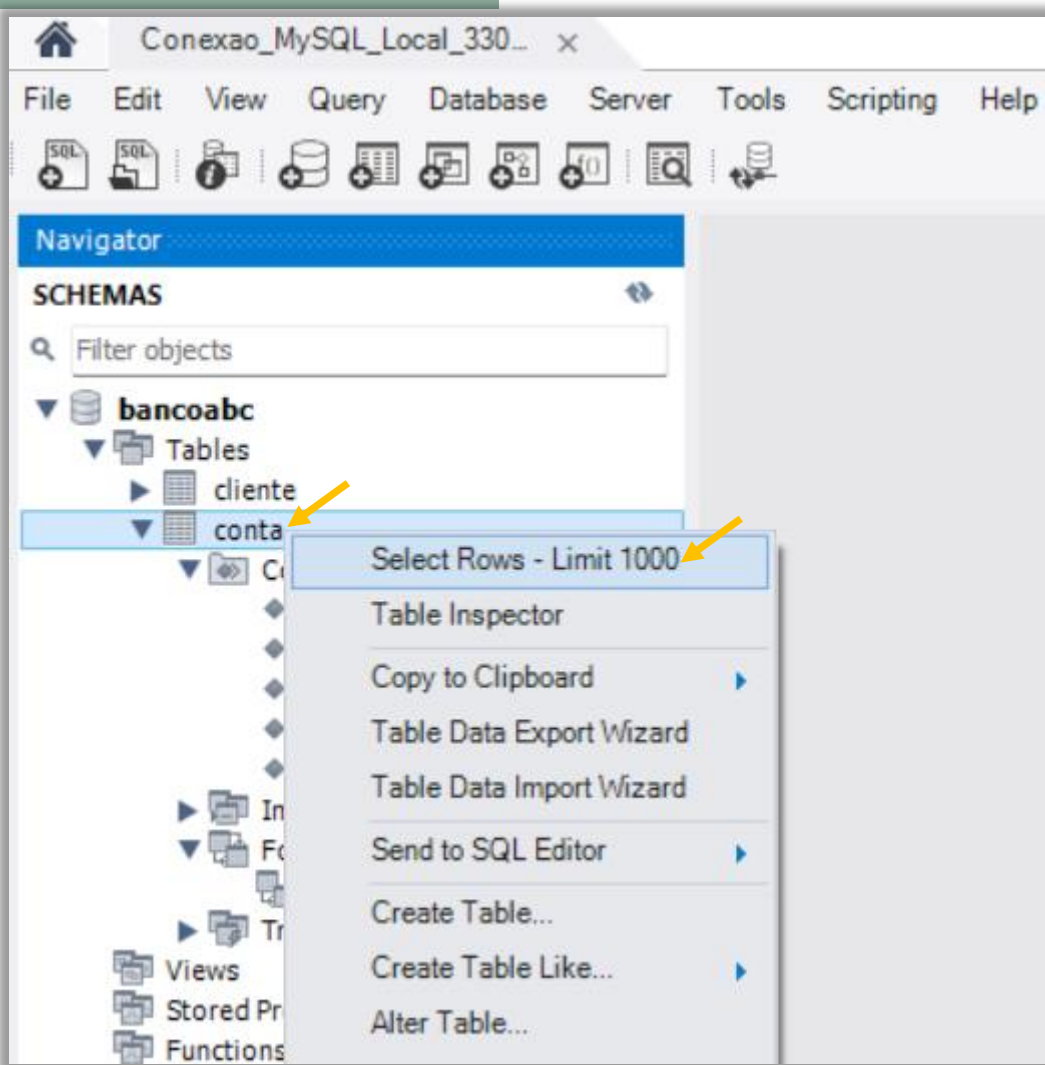
Cancel



# Workbench: Tabelas e Relacionamentos



# Workbench: Exibindo Dados da Tabela



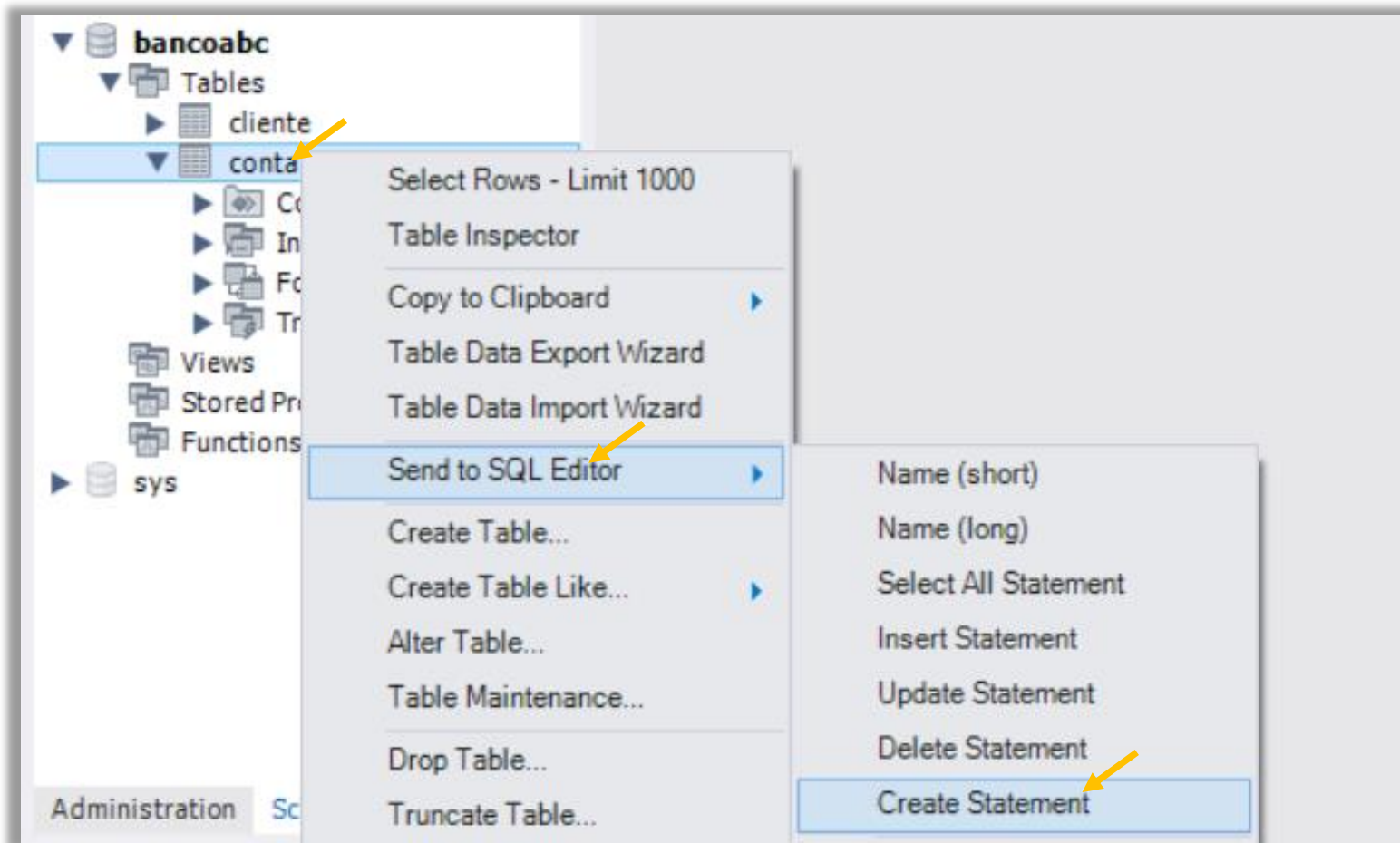
# Workbench: Exibindo Dados da Tabela

The screenshot shows the MySQL Workbench interface. At the top, a tab labeled 'conta' is active. Below the tab is a toolbar with various icons, including a 'Limit to 1000 rows' dropdown. The SQL editor contains the query: `1 • SELECT * FROM bancoabc.conta;`. Below the editor is a 'Result Grid' section with a toolbar containing 'Filter Rows', 'Edit', 'Export/Import', and 'Wrap Cell Content'. The grid displays the following columns: **id**, **numero**, **saldo**, **limite**, and **clienteId**. The first row shows all values as **NULL**. To the right of the grid is a blue button labeled 'Result Grid'. Below the grid is an 'Output' section with a dropdown menu set to 'Action Output'. The output table shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
✓ 1	00:39:33	SELECT * FROM bancoabc.conta LIMIT 0, ...	0 row(s) returned	0.000 sec / 0.000 sec

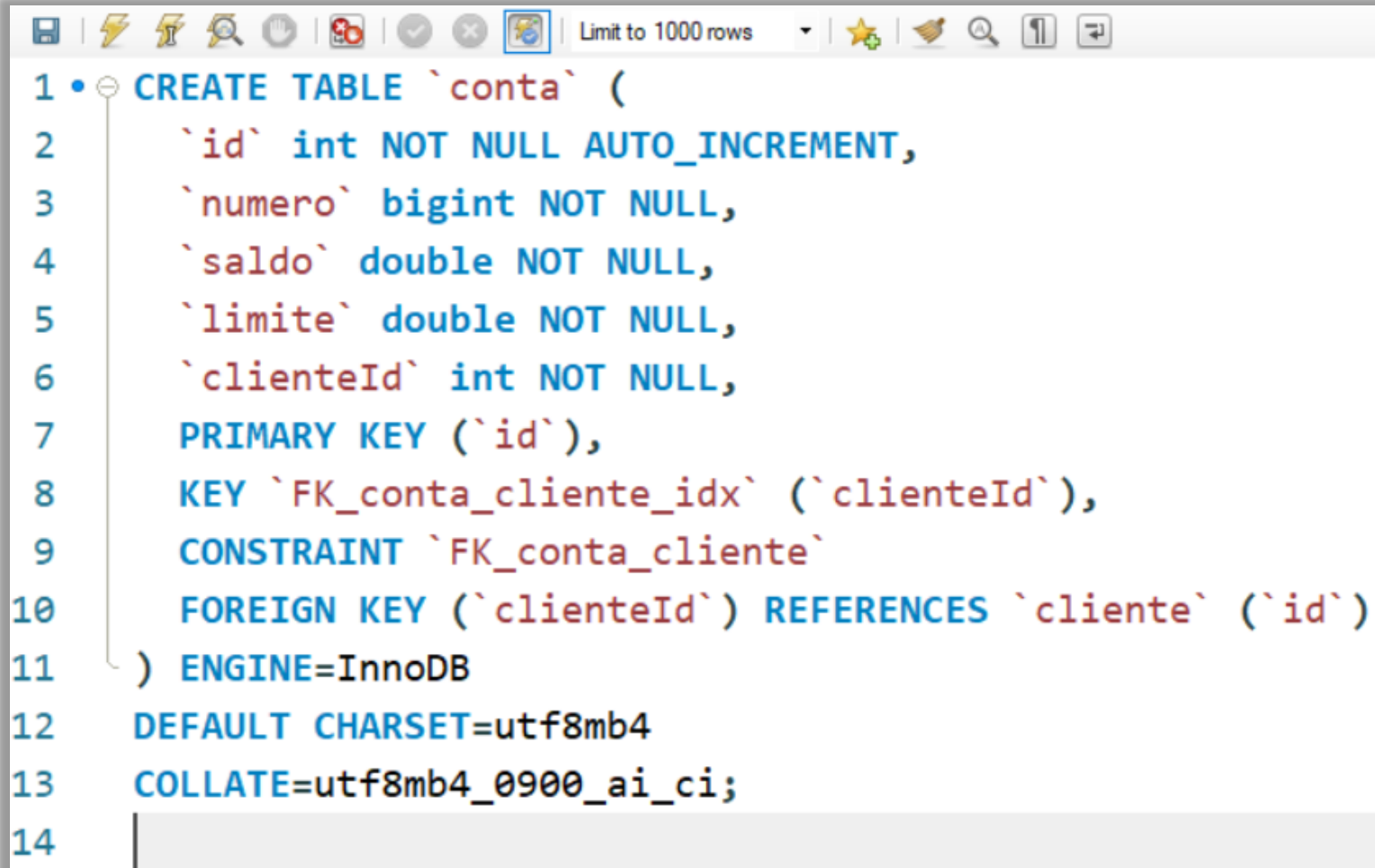


# Workbench: Ver SQL de Criação em Tabela Existente





# Workbench: Ver SQL de Criação em Tabela Existente

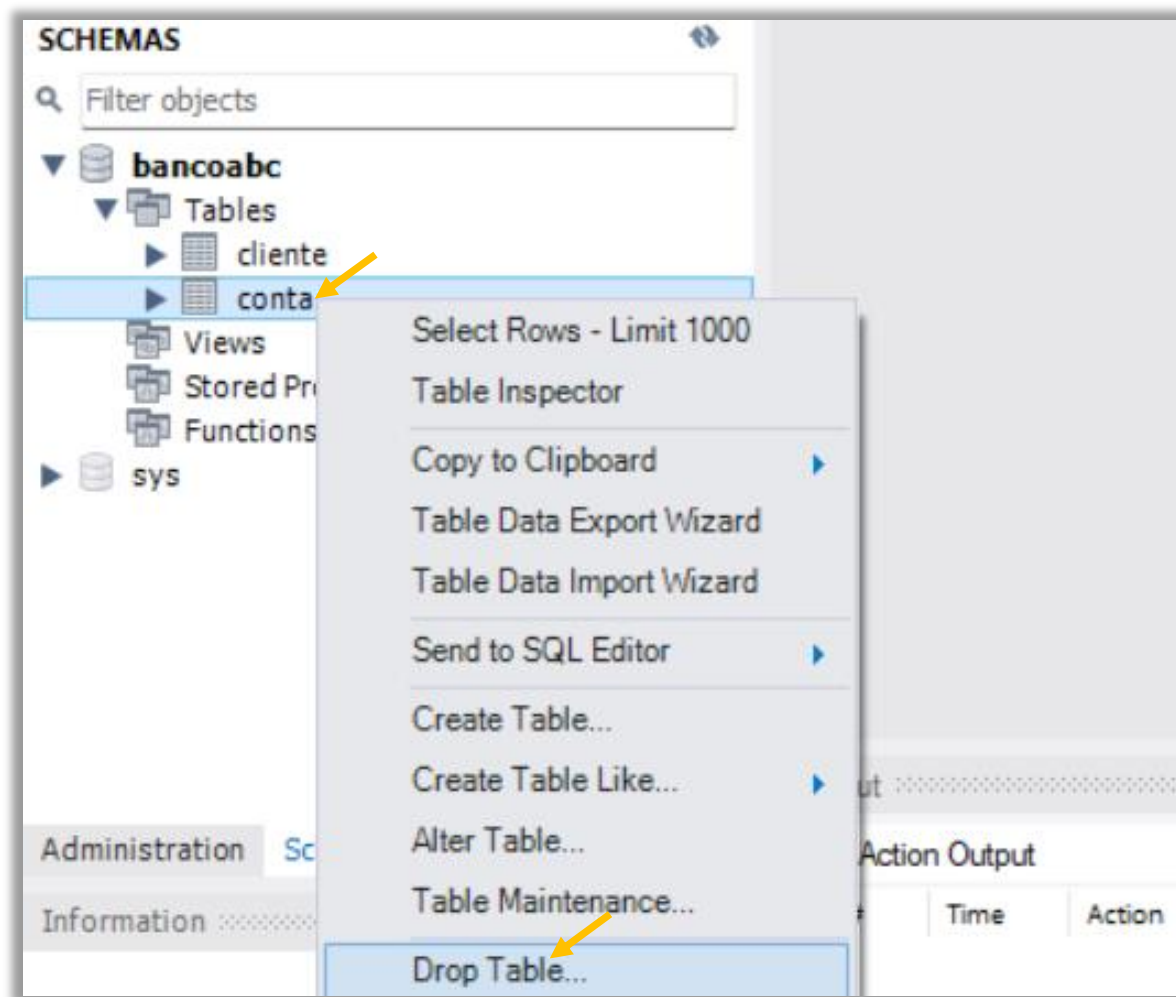


The screenshot shows the MySQL Workbench SQL editor interface. The top toolbar includes icons for saving, executing, and other database operations. The main text area contains the following SQL code:

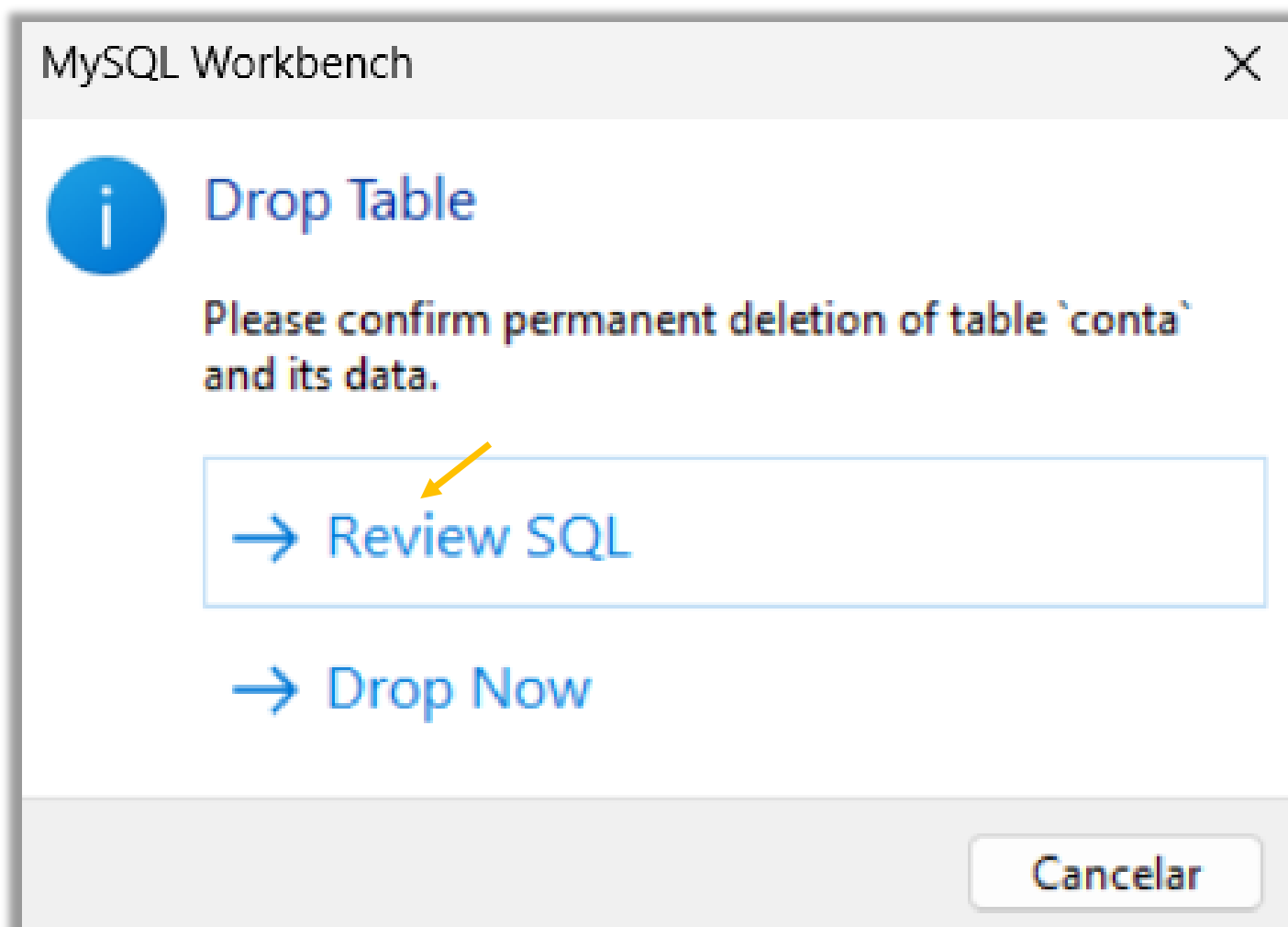
```
1 • CREATE TABLE `conta` (  
2     `id` int NOT NULL AUTO_INCREMENT,  
3     `numero` bigint NOT NULL,  
4     `saldo` double NOT NULL,  
5     `limite` double NOT NULL,  
6     `clienteId` int NOT NULL,  
7     PRIMARY KEY (`id`),  
8     KEY `FK_conta_cliente_idx` (`clienteId`),  
9     CONSTRAINT `FK_conta_cliente`  
10    FOREIGN KEY (`clienteId`) REFERENCES `cliente` (`id`)  
11 ) ENGINE=InnoDB  
12 DEFAULT CHARSET=utf8mb4  
13 COLLATE=utf8mb4_0900_ai_ci;  
14
```



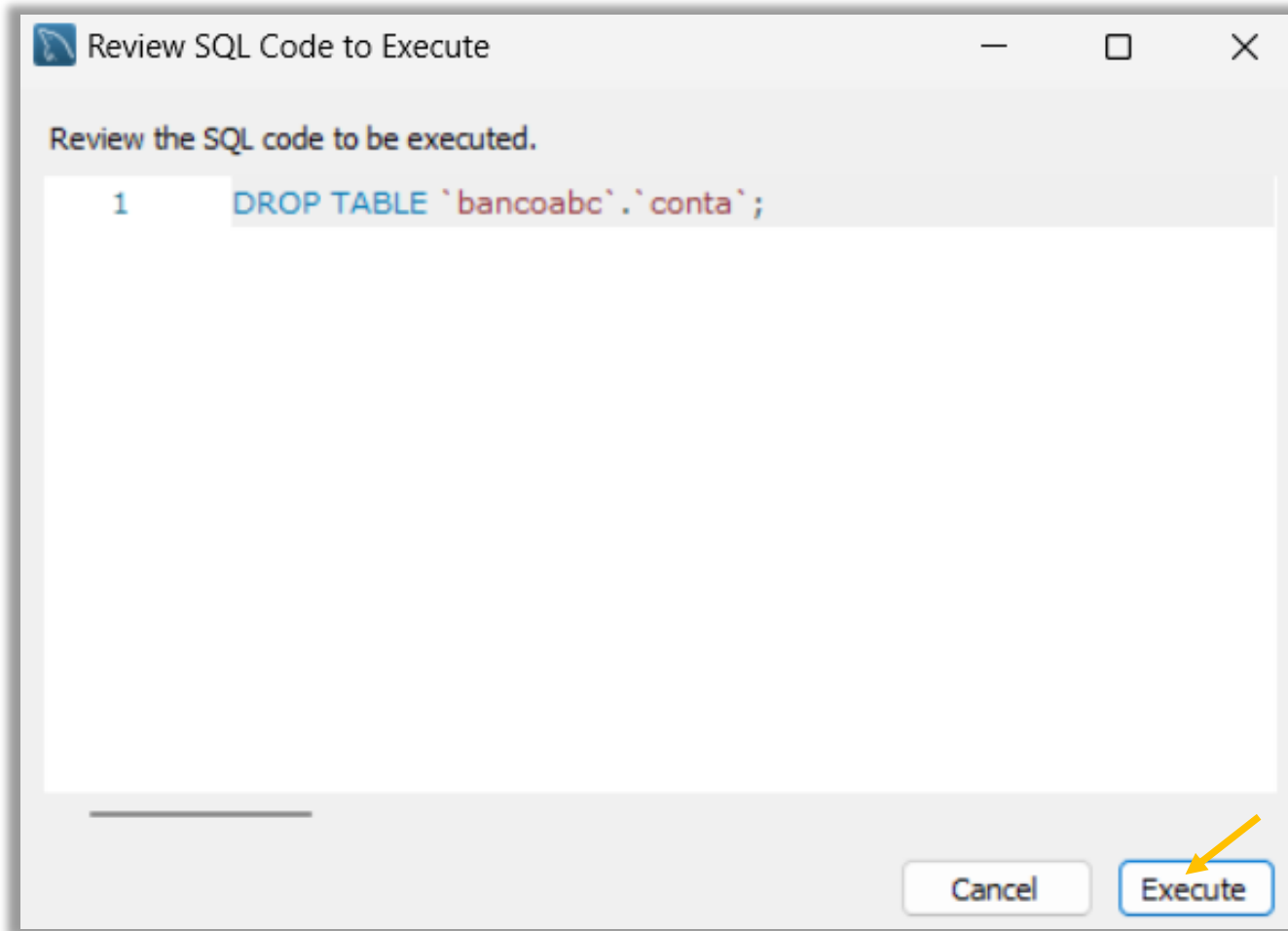
# Workbench: Excluindo Tabela



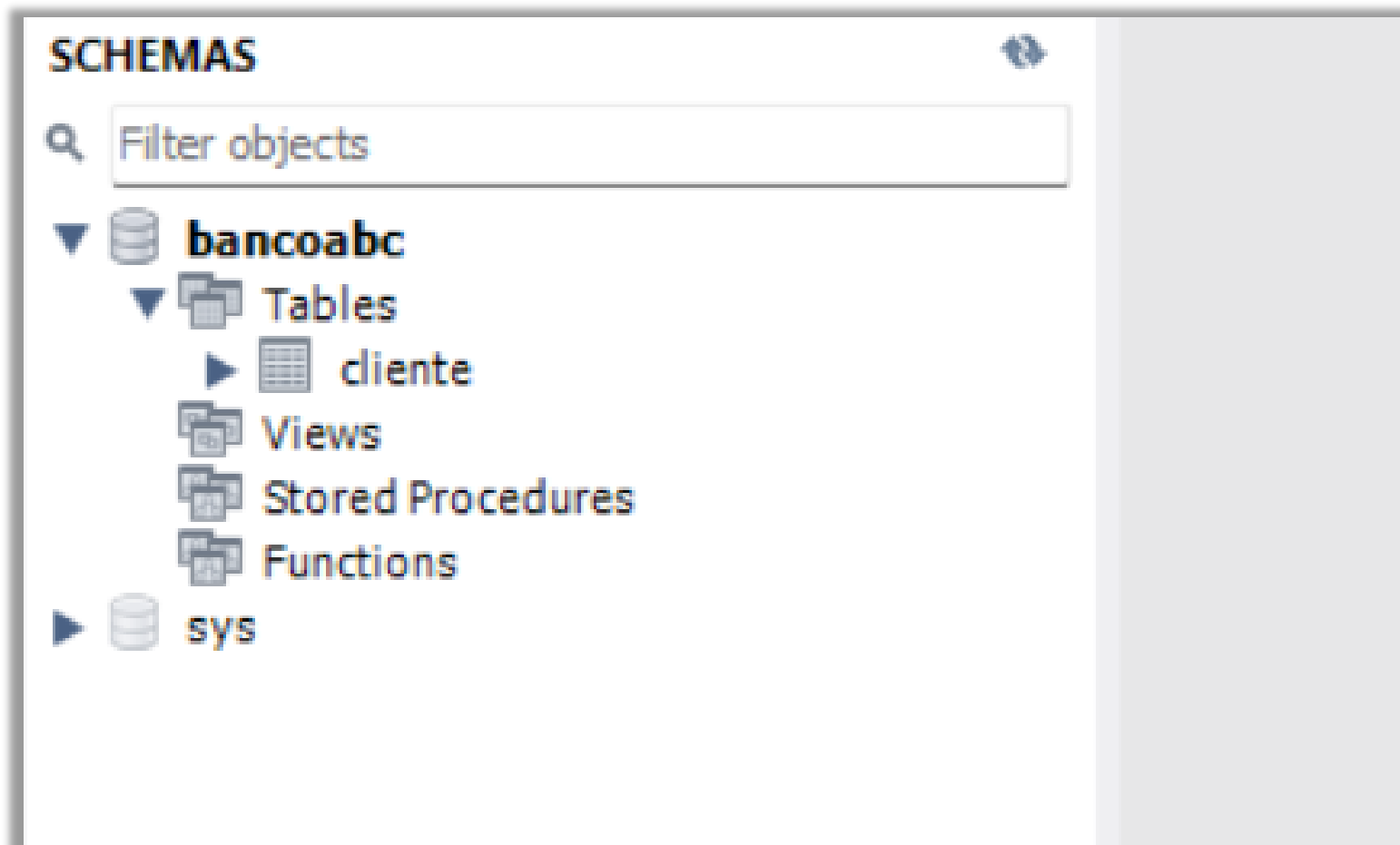
# Workbench: Excluindo Tabela



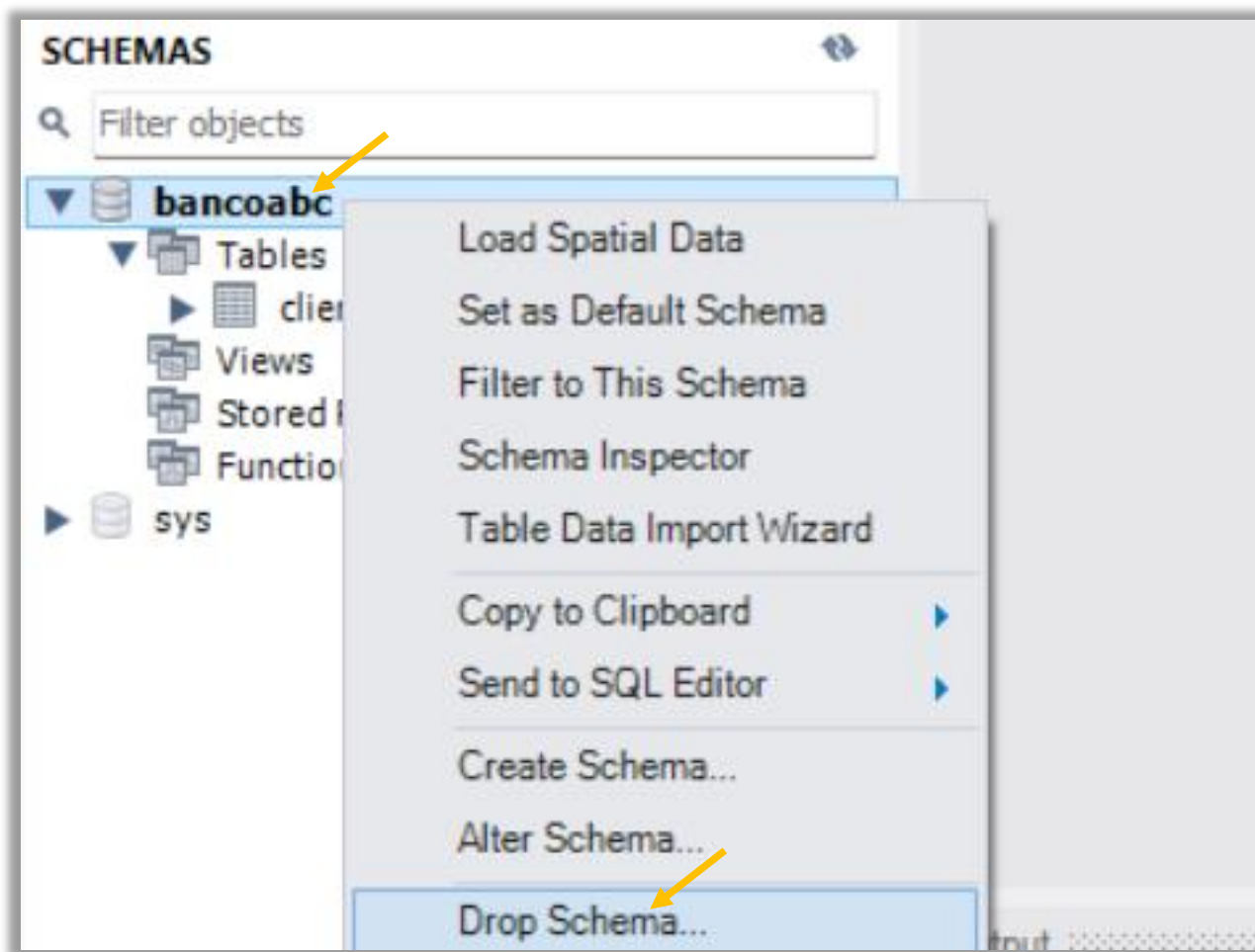
# Workbench: Excluindo Tabela



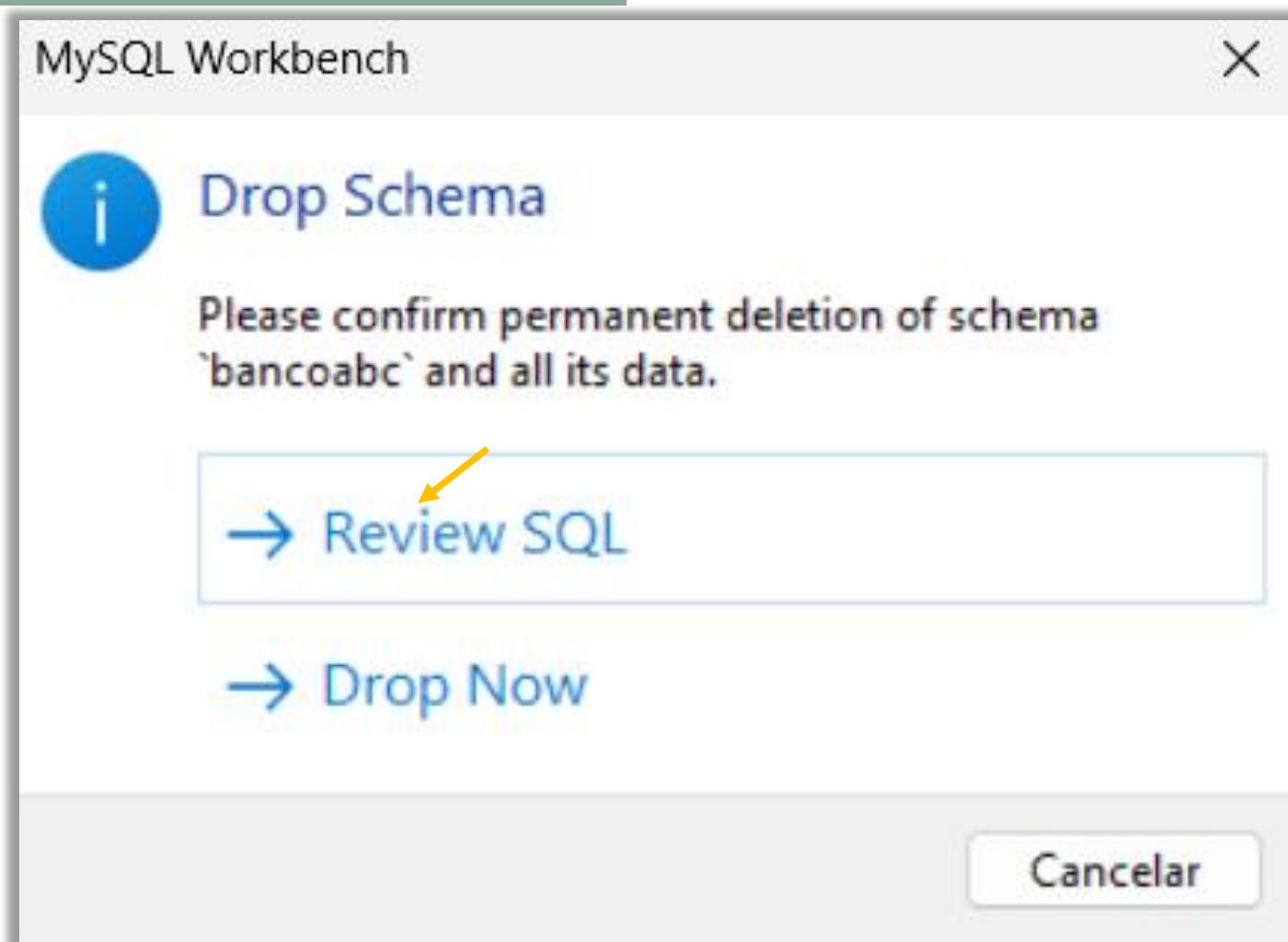
# Workbench: Excluindo Tabela



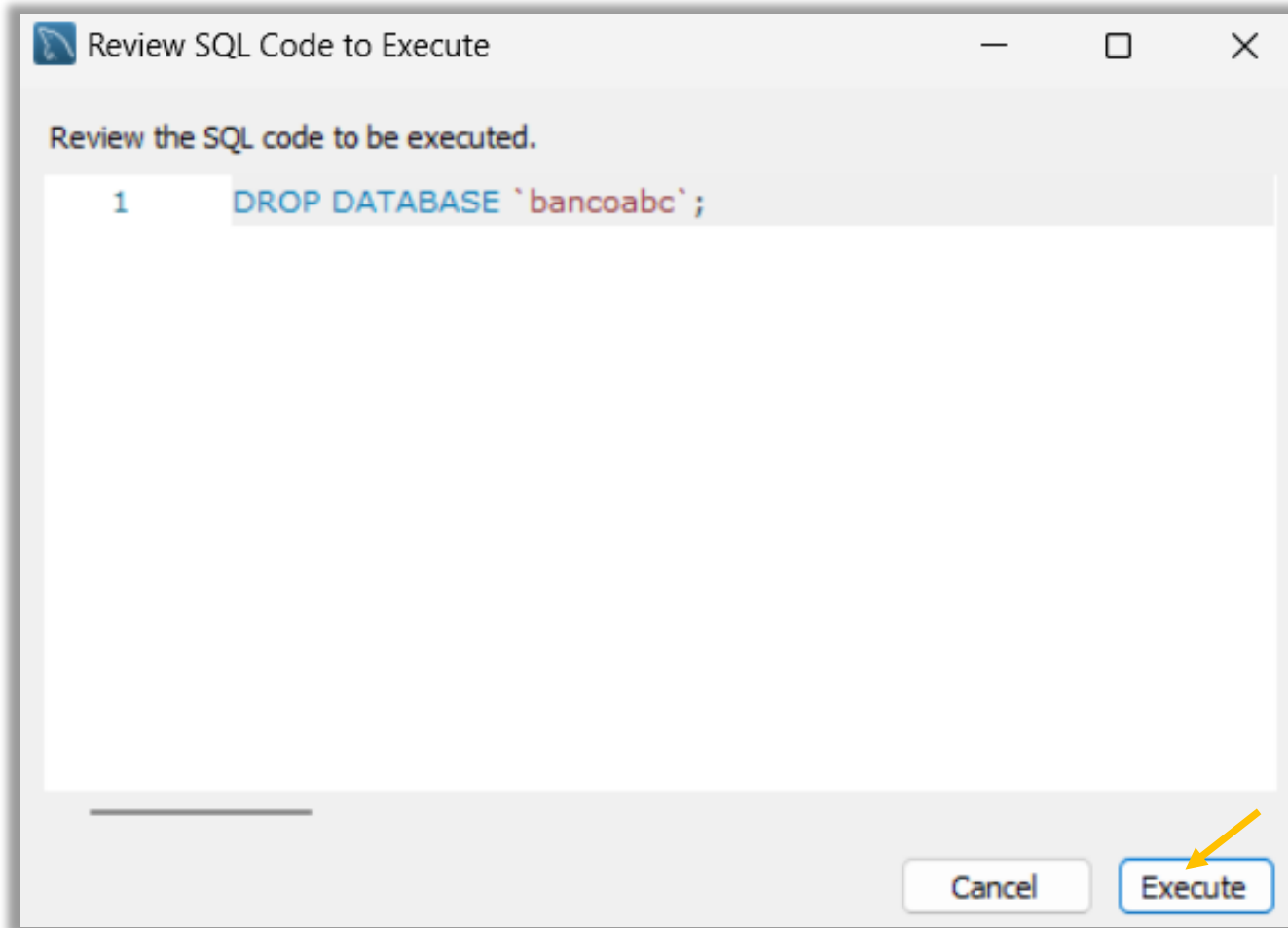
# Workbench: Excluindo Banco de Dados



# Workbench: Excluindo Banco de Dados

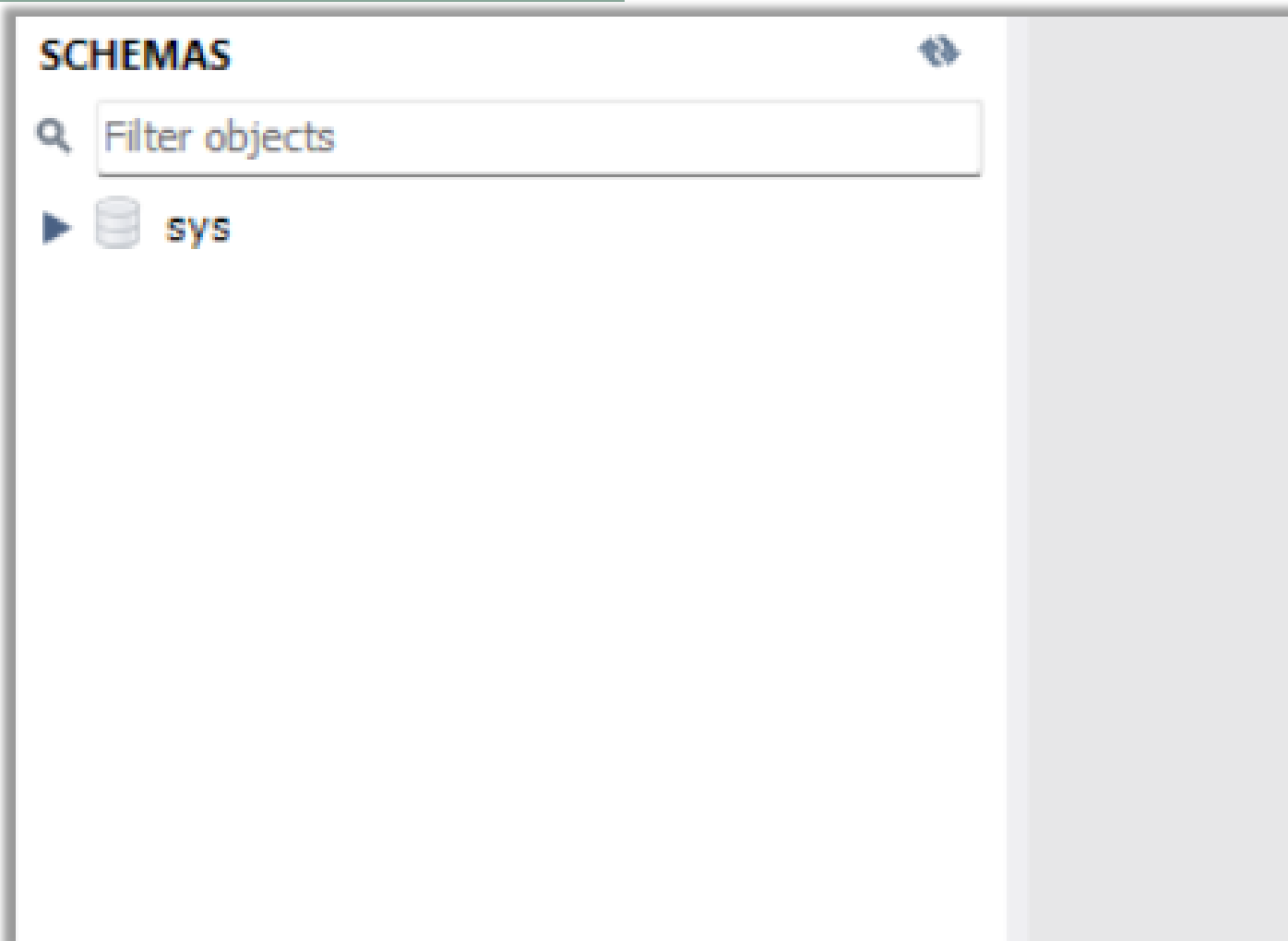


# Workbench: Excluindo Banco de Dados





# Workbench: Excluindo Banco de Dados



# Exercícios

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- 1) Abra uma conexão com o MySQL utilizando Workbench, conforme apresentado nos slides anteriores.
- 2) Conectado ao MySQL através do Workbench, crie os exemplos apresentados nos slides anteriores.



# Obrigado!

# Questões?

