Inventario de dispositivos de Networking.

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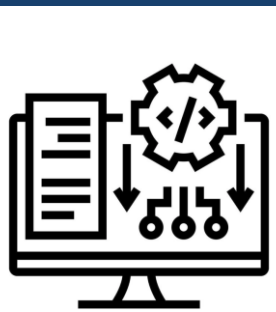
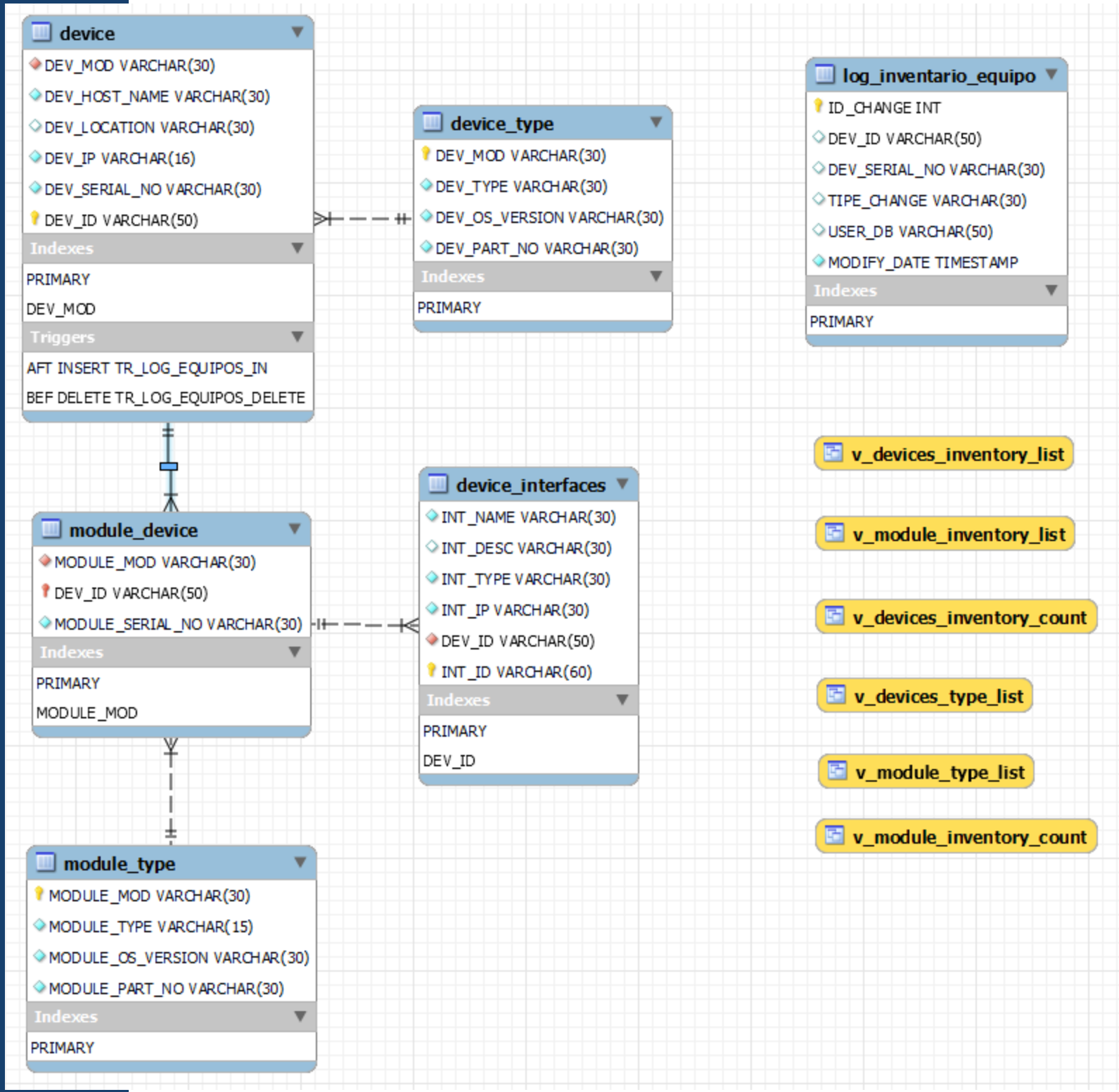
Propuesta

Se necesita realizar una base de datos sobre equipos de telecomunicaciones en donde se tengan datos como modelo, número de serie, ip de gestión, puertos físicos, dirección, cantidad y datos de configuración como servicios internos (IPs), log de modificaciones de las tablas y control de cambios o usuarios.

Entidad de relación

- Se centra en el inventario del numero total de los equipos, y sus modelos.
- Además en el inventario de los modelos que tienes los equipos y sus particularidades ejemplo como una raza.
- Cada equipo va a tener módulos.
- Cada modulo cuenta con distintas interfaces.
- Y cada interfaz tiene distintos servicios.
- Además se incluyen las distintas vistas y la tabla de control de usuarios y cambios





Tablas:

Tabla de modelos de equipos (device_type)

PK	FK	Field name	Field database name	Data type	NULL	LEN	NOTES
X		Modelo	DEV_MOD	VARCHAR	NOT	30	Modelo del dispositivo
		Device Type	DEV_TYPE	VARCHAR	NOT	30	Tipo de dispositivo
		IOS	DEV_OS_VERSION	VARCHAR	NOT	30	Software del dispositivo
		Part number	DEV_PART_NO	VARCHAR	NOT	30	Numero de parte del fabricante

Tabla de equipos (device)

PK	FK	Field name	Field database name	Data type	NULL	LEN	NOTES
		Host name	DEV_HOST_NAME	VARCHAR	NOT	30	Nombre asignado al dispositivo
		Location	DEV_LOCATION	VARCHAR	YES	30	Locacion del dispositivo
		IP	DEV_IP	VARCHAR	NOT	16	IP de gestion
	X	Modelo	DEV_MOD	VARCHAR	NOT	30	Modelo del dispositivo
		Serial	DEV_SERIAL_NO	VARCHAR	NOT	30	Numero de serie
X		ID	DEV_ID	VARCHAR	NOT	50	DEV_IP + DEV_HOST_NAME

Tabla de modelos de modulos (module_type)

PK	FK	Field name	Field database name	Data type	NULL	LEN	NOTES
X		Modelo	MODULE_MOD	VARCHAR	NOT	30	Modelo del modulo
		Type	MODULE_TYPE	VARCHAR	NOT	15	Tipo de modulo
		IOS	MODULE_OS_VERSION	VARCHAR	NOT	30	Software del modulo
		Part number	MODULE_PART_NO	VARCHAR	NOT	30	Numero de parte del fabricante

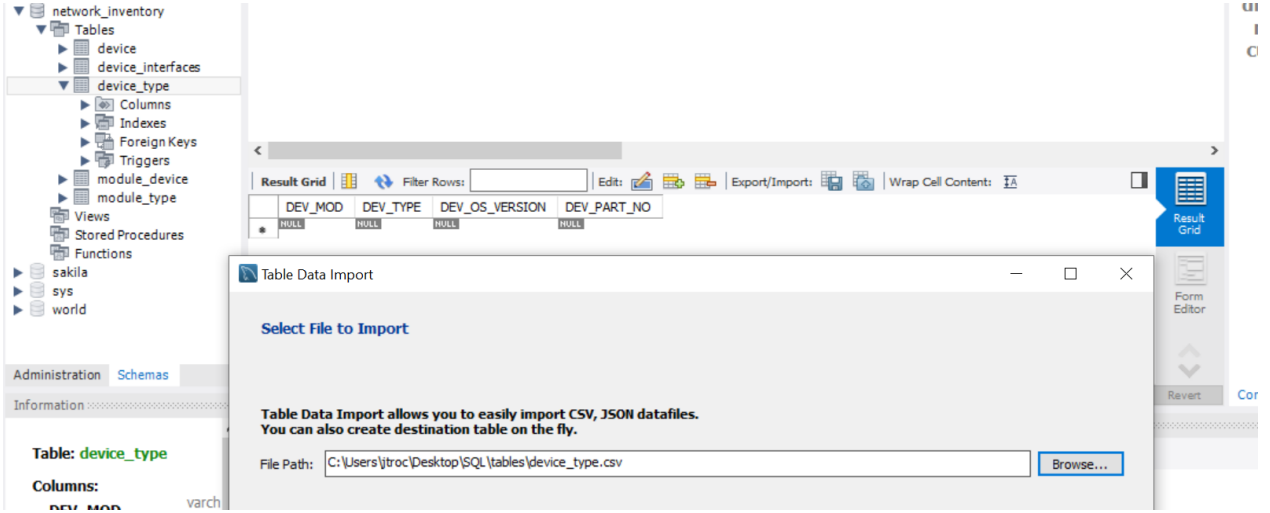
Tabla de modulos en devices (module_device)

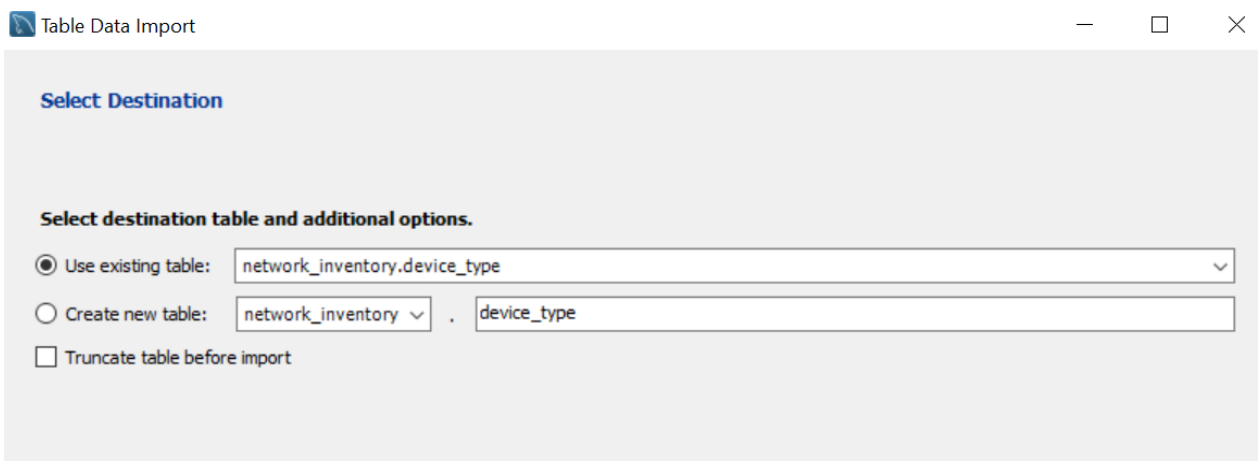
PK	FK	Field name	Field database name	Data type	NULL	LEN	NOTES
X	X	ID	DEV_ID	VARCHAR	NOT	50	DEV_IP + DEV_HOST_NAME
	X	Modelo	MODULE_MOD	VARCHAR	NOT	30	Modelo del modulo
		Serial number	MODULE_SERIAL_NO	VARCHAR	NOT	30	Numero de Serie

Tabla de Interfaz (device_interfaces)

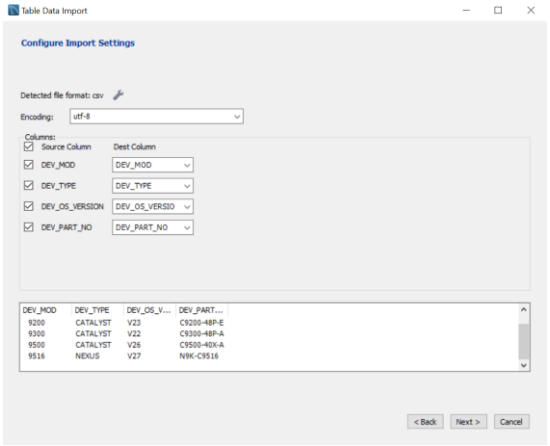
PK	FK	Field name	Field database name	Data type	NULL	LEN	NOTES
	X	ID	DEV_ID	VARCHAR	NOT	50	DEV_IP + DEV_HOST_NAME
		Interface name	INT_NAME	VARCHAR	NOT	30	Nombre de la interfaz
		Interface description	INT_DESC	VARCHAR	yes	30	Descipcion logica
		Interface type	INT_TYPE	VARCHAR	NOT	30	Tipo de interfaz
		Interface IP	INT_IP	VARCHAR	NOT	30	IP de la interfaz
X		ID	INT_ID	VARCHAR	NOT	60	INT_IP + INT_NAME

Insert device_type





Insertando datos a las tablas

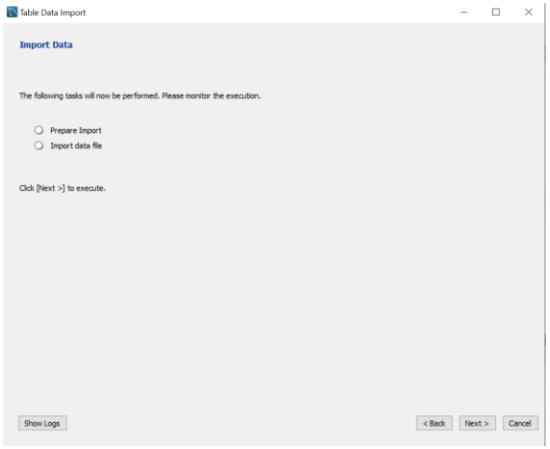


Import Results

File C:\Users\jtroc\Desktop\SQL\tables\device_type.csv was imported in 0.361 s

Table network_inventory.device_type has been used

6 records imported

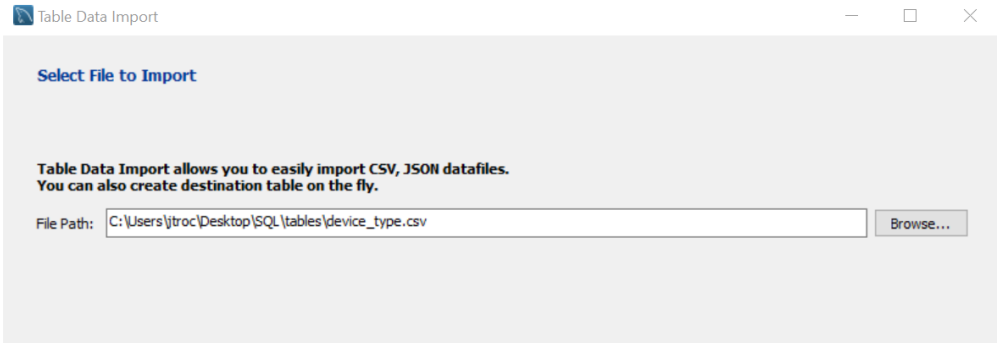


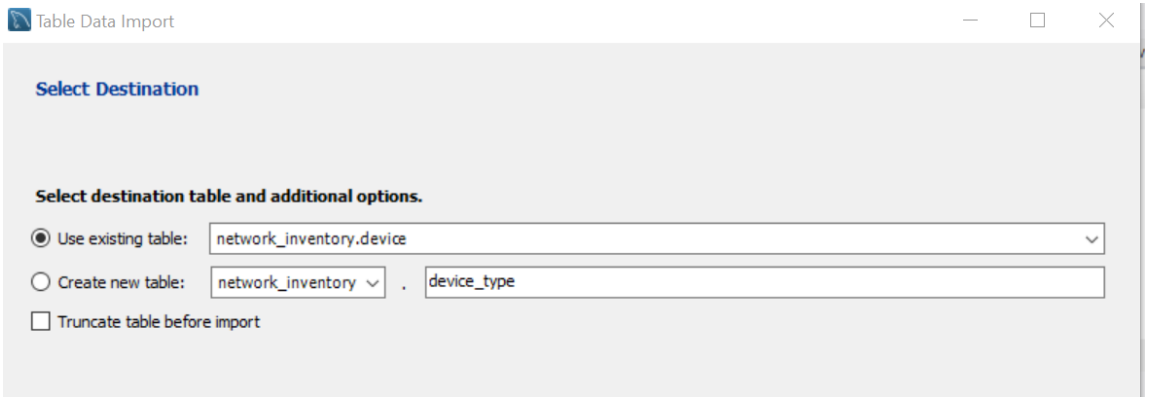

```
1 •  SELECT * FROM network_inventory.device_type;
```

Result Grid | Filter Rows: | Edit:

DEV_MOD	DEV_TYPE	DEV_OS_VERSION	DEV_PART_NO
C3850	CATALYST	V23	WS-C3850-48F-S
C9200	CATALYST	V23	C9200-48P-E
C9300	CATALYST	V22	C9300-48P-A
C9500	CATALYST	V26	C9500-40X-A
N9504	NEXUS	V27	N9K-C9504
N9516	NEXUS	V27	N9K-C9516

Insert device





Insertando datos a las tablas


Table Data Import
Import Data
The following tasks will now be performed. Please monitor the execution.
Prepare Import
Import data file
Finished performing tasks. Click [Next >] to continue.

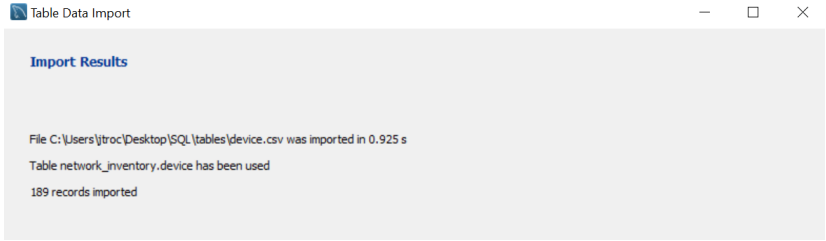
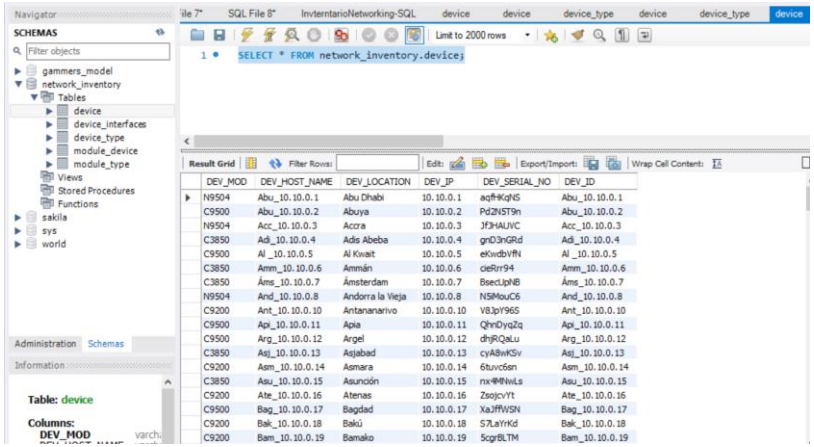


Table Data Import
Import Results
File C:\Users\jtroc\Desktop\SQL\tables\device.csv was imported in 0.925 s
Table network_inventory.device has been used
189 records imported


Navigator
SCHEMAS
Filter objects
gammers_model
network_inventory
Tables
device
device_interfaces
device_type
module_device
module_type
Views
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
Table: device
Columns:
DEV_MOD
SELECT * FROM network_inventory.device;
Result Grid
DEV_MOD DEV_HOST_NAME DEV_LOCATION DEV_IP DEV_SERIAL_NO DEV_ID
N9504 Abu_10.10.0.1 Abu Dhabi 10.10.0.1 aqfHKqNS Abu_10.10.0.1
C9500 Abu_10.10.0.2 Abuya 10.10.0.2 Pd2NST9n Abu_10.10.0.2
N9504 Acc_10.10.0.3 Accra 10.10.0.3 JfJHAUVC Acc_10.10.0.3
C3850 Adi_10.10.0.4 Adis Abeba 10.10.0.4 gnD3nGRd Adi_10.10.0.4
C9500 Al _10.10.0.5 Al Kwait 10.10.0.5 eKwdbVfN Al _10.10.0.5
C3850 Amm_10.10.0.6 Ammán 10.10.0.6 cieRrr94 Amm_10.10.0.6
C3850 Ams_10.10.0.7 Ámsterdam 10.10.0.7 BsecUpNB Ams_10.10.0.7
N9504 And_10.10.0.8 Andorra la Vieja 10.10.0.8 NSiMouC6 And_10.10.0.8
C9200 Ant_10.10.0.10 Antananarivo 10.10.0.10 V8JpY965 Ant_10.10.0.10
C9500 Api_10.10.0.11 Apia 10.10.0.11 QhnDyqZq Api_10.10.0.11
C9500 Arg_10.10.0.12 Argel 10.10.0.12 dhjRQaLu Arg_10.10.0.12
C3850 Asj_10.10.0.13 Asjabad 10.10.0.13 cyA8wKSv Asj_10.10.0.13
C9200 Asm_10.10.0.14 Asmara 10.10.0.14 6tuvc6sn Asm_10.10.0.14
C3850 Asu_10.10.0.15 Asunción 10.10.0.15 nx4MNwLs Asu_10.10.0.15
C9200 Ate_10.10.0.16 Atenas 10.10.0.16 ZsojcvYt Ate_10.10.0.16
C9500 Bag_10.10.0.17 Bagdad 10.10.0.17 XaJffWSN Bag_10.10.0.17
C9200 Bak_10.10.0.18 Bakú 10.10.0.18 S7LaYrKd Bak_10.10.0.18
C9200 Bam_10.10.0.19 Bamako 10.10.0.19 5cgrBLTM Bam_10.10.0.19

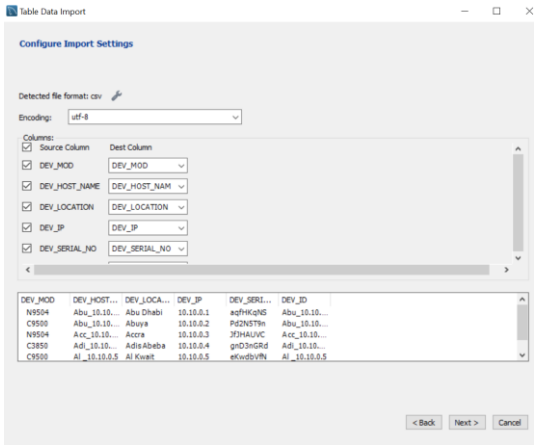
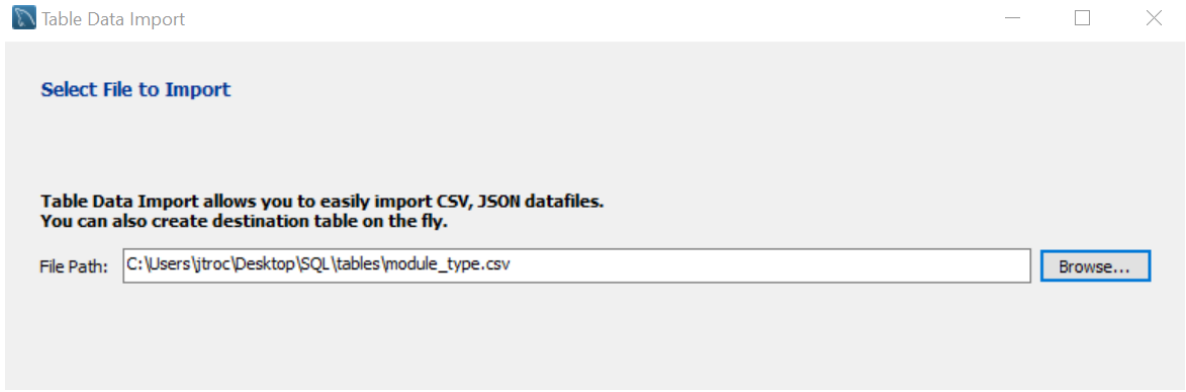
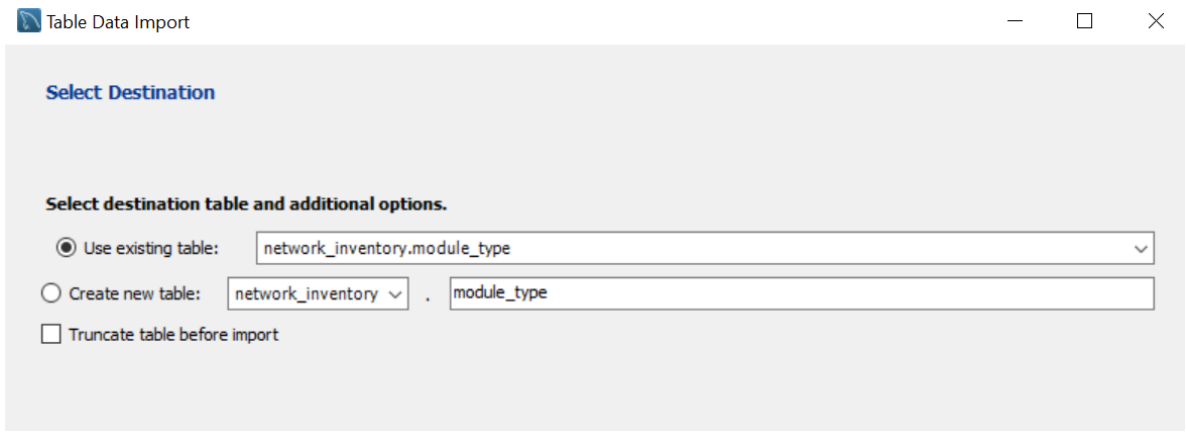


Table Data Import
Configure Import Settings
Detected file format: csv
Encoding: utf-8
Columns:
Source Column
Dest Column
DEV_MOD
DEV_HOST_NAME
DEV_LOCATION
DEV_IP
DEV_SERIAL_NO
< Back
Next >
Cancel

Insert module_type





Insertando datos a las tablas

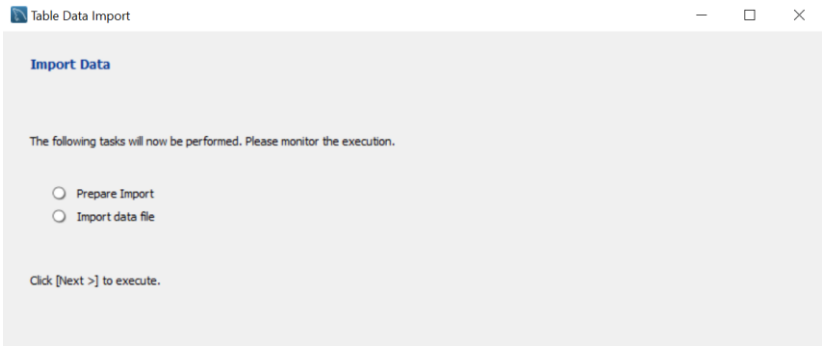


Table Data Import
Import Data
The following tasks will now be performed. Please monitor the execution.
Prepare Import
Import data file
Click [Next >] to execute.

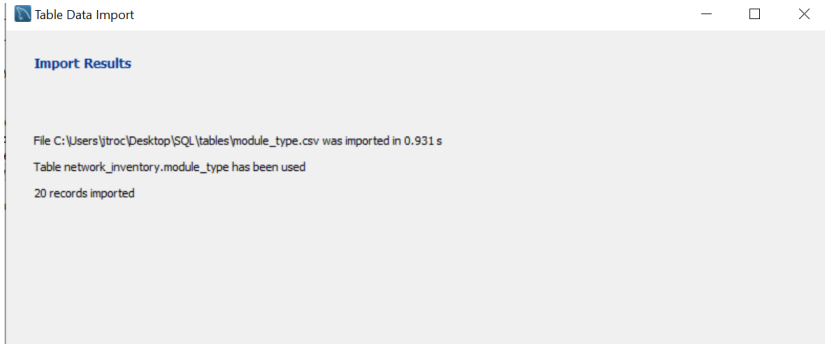


Table Data Import
Import Results
File C:\Users\jtroc\Desktop\SQL\tables\module_type.csv was imported in 0.931 s
Table network_inventory.module_type has been used
20 records imported

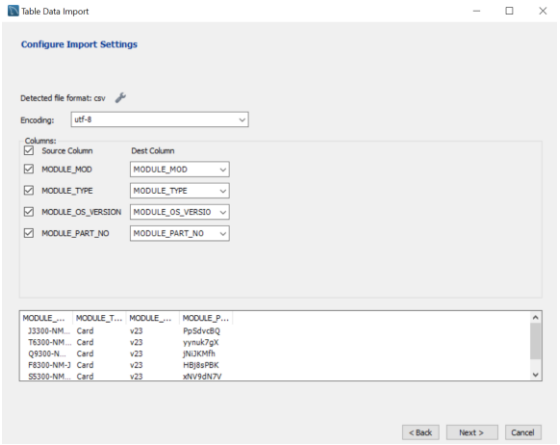
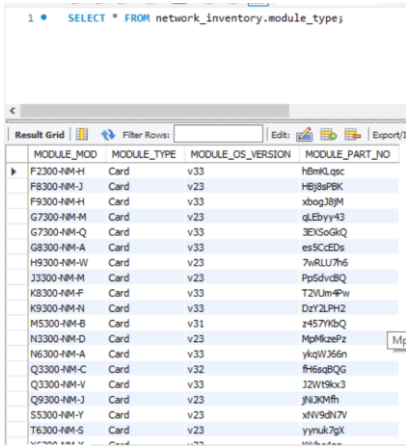
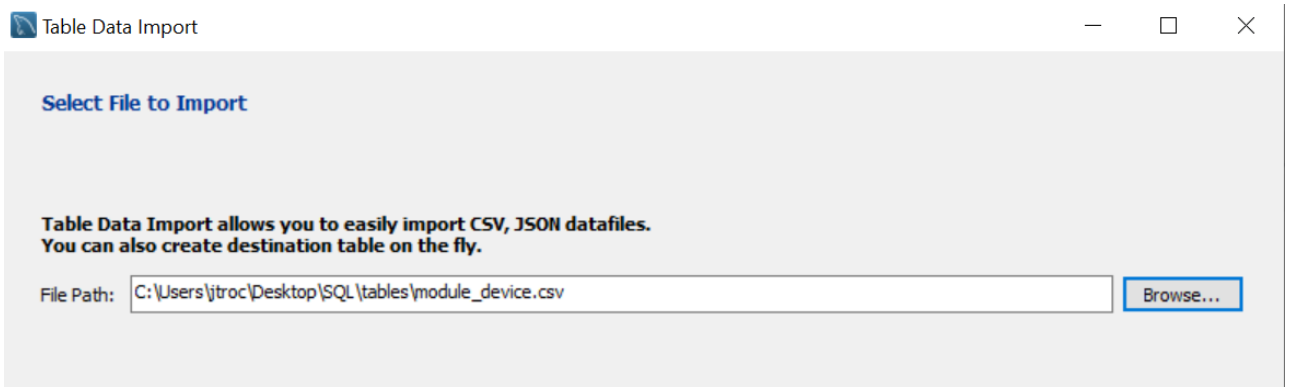
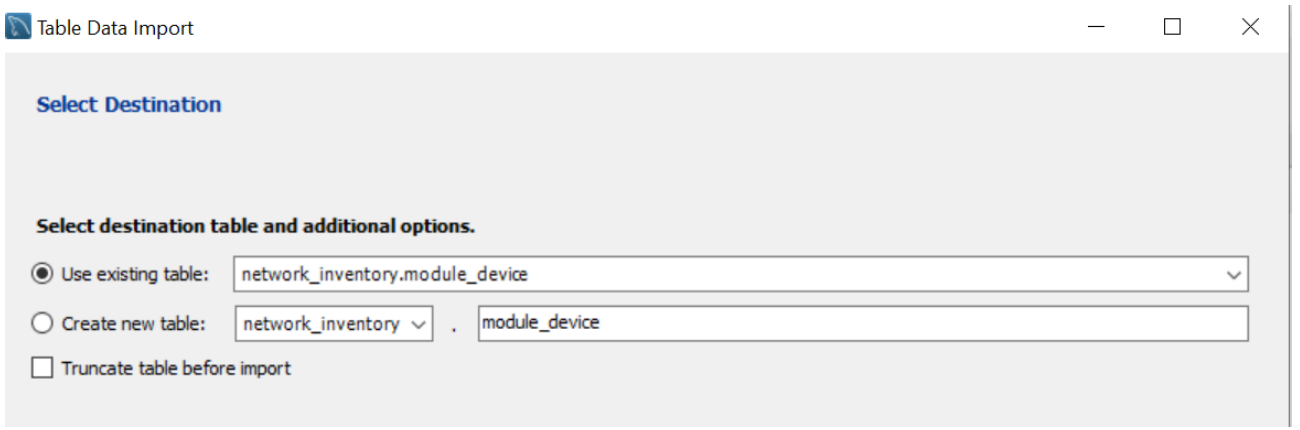


Table Data Import
Configure Import Settings
Detected file format: csv
Encoding: utf-8
Columns:
Source Column
Dest Column
MODULE_MOD
MODULE_TYPE
MODULE_OS_VERSION
MODULE_PART_NO
< Back
Next >
Cancel

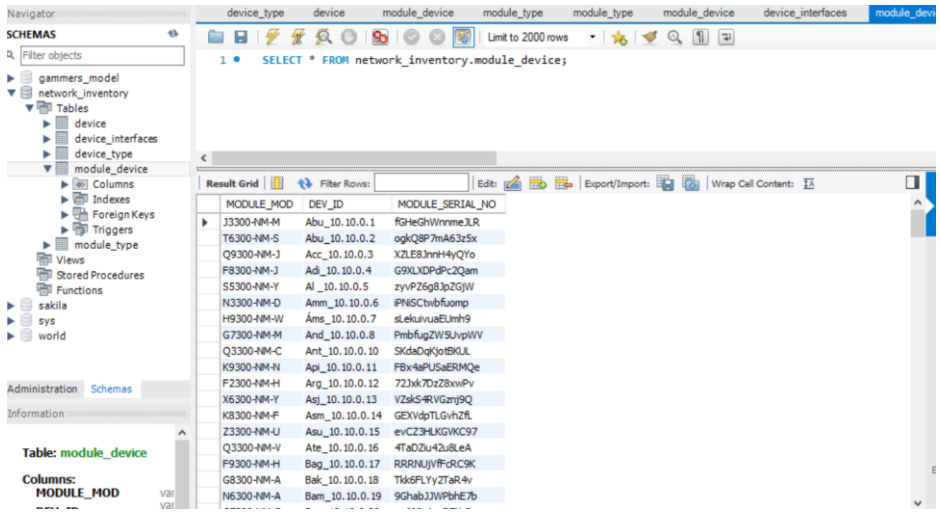

1 • SELECT * FROM network_inventory.module_type;
Result Grid
Filter Rows:
Edit:
MODULE_MOD
MODULE_TYPE
MODULE_OS_VERSION
MODULE_PART_NO
F2300-NM-H Card v33 hBmKLqsc
F8300-NM-J Card v23 HBj8sPBK
F9300-NM-H Card v33 xbogJ8jM
G7300-NM-M Card v23 qLEbyy43
G7300-NM-Q Card v33 3EXSoGkQ
G8300-NM-A Card v33 es5CdEDs
H9300-NM-W Card v23 7wRLU7h6
J3300-NM-M Card v23 PpSdvcBQ
K8300-NM-F Card v33 T2VUm4Pw
K9300-NM-N Card v33 DzY2LPH2
M5300-NM-B Card v31 z457YKbQ
N3300-NM-D Card v23 MpMkzePz
N6300-NM-A Card v33 ykqWJ66n
Q3300-NM-C Card v32 fH6sqBQG
Q3300-NM-V Card v33 J2Wt9kx3
Q9300-NM-J Card v23 jNiJKMfh
S5300-NM-Y Card v23 xNV9dN7V
T6300-NM-S Card v23 yynuk7gX

Insert module_device





Insertando datos a las tablas


Navigator
SCHEMAS
Filter objects
gammers_model
network_inventory
Tables
device
device_interfaces
device_type
module_device
Columns
Indexes
Foreign Keys
Triggers
module_type
Views
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
Table: module_device
Columns:
MODULE_MOD
device_type
device
module_device
module_type
module_type
module_device
device_interfaces
Limit to 2000 rows
1 • SELECT * FROM network_inventory.module_device;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
MODULE_MOD
DEV_ID
MODULE_SERIAL_NO
J3300-NM-M
Abu_10.10.0.1
fGHeGhWnnmeJLR
T6300-NM-S
Abu_10.10.0.2
ogkQ8P7mA63z5x
Q9300-NM-J
Acc_10.10.0.3
XZLE8JnnH4yQYo
F8300-NM-J
Adi_10.10.0.4
G9XLXDPdPc2Qam
S5300-NM-Y
Al _10.10.0.5
zyvPZ6g8JpZGjW
N3300-NM-D
Amm_10.10.0.6
iPNSCtwbfuomp
H9300-NM-W
Ams_10.10.0.7
sLekuivuaEUmh9
G7300-NM-M
And_10.10.0.8
PmbfugZW5UvpWV
Q3300-NM-C
Ant_10.10.0.10
SKdaDqKjotBKUL
K9300-NM-N
Api_10.10.0.11
FBx4aPUSaERMQe
F2300-NM-H
Arg_10.10.0.12
72Jxk7DzZ8xwPv
X6300-NM-Y
Asj_10.10.0.13
VZskS4RVGznj9Q
K8300-NM-F
Asm_10.10.0.14
GEXVdpTLGvhZfL
Z3300-NM-U
Asu_10.10.0.15
evCZ3HLKGVKC97
Q3300-NM-V
Ate_10.10.0.16
4TaDZlu42u8LeA
F9300-NM-H
Bag_10.10.0.17
RRRNUjVfFcRC9K
G8300-NM-A
Bak_10.10.0.18
Tkk6FLYy2TaR4v
N6300-NM-A
Bam_10.10.0.19
9GhabJJWPbhE7b

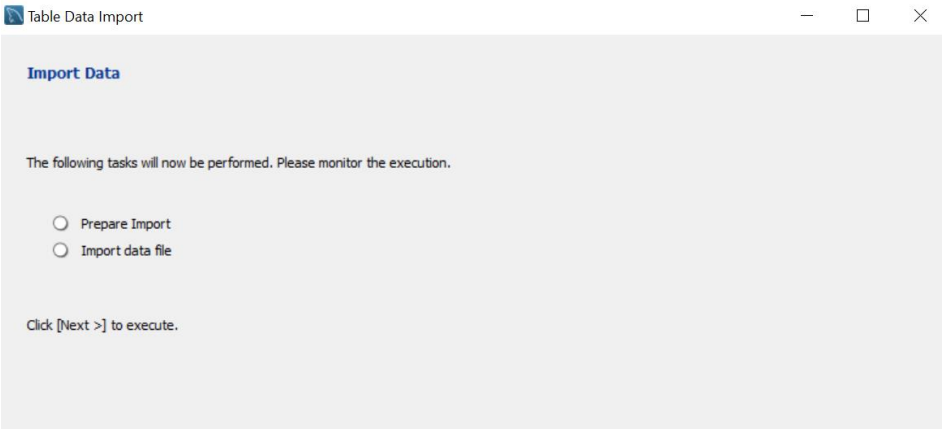


Table Data Import
Import Data
The following tasks will now be performed. Please monitor the execution.
Prepare Import
Import data file
Click [Next >] to execute.

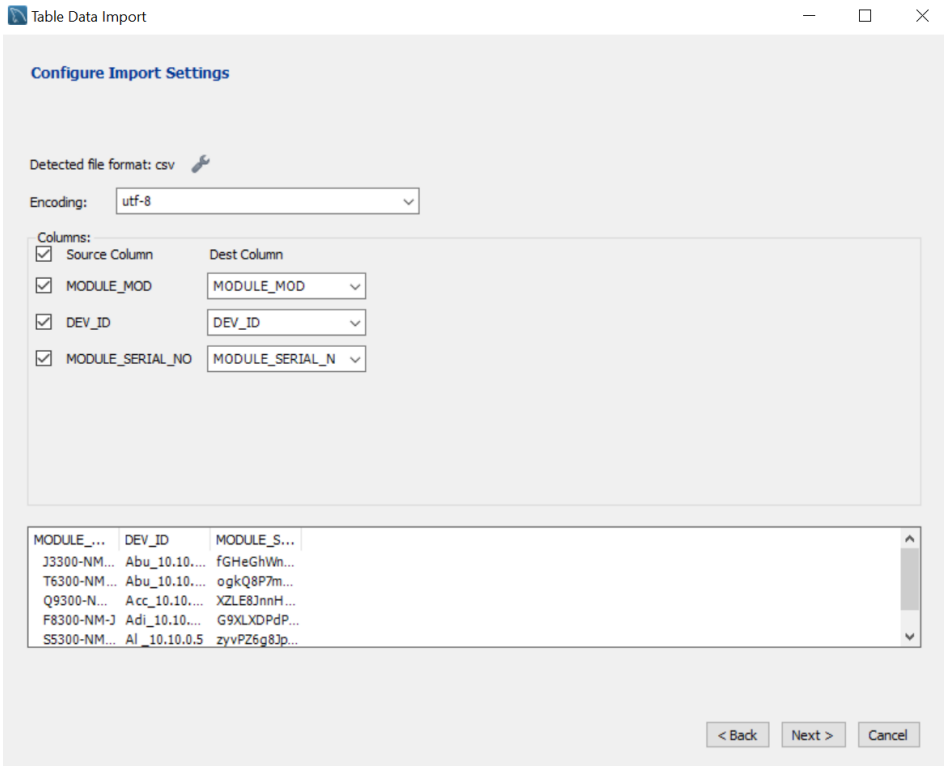
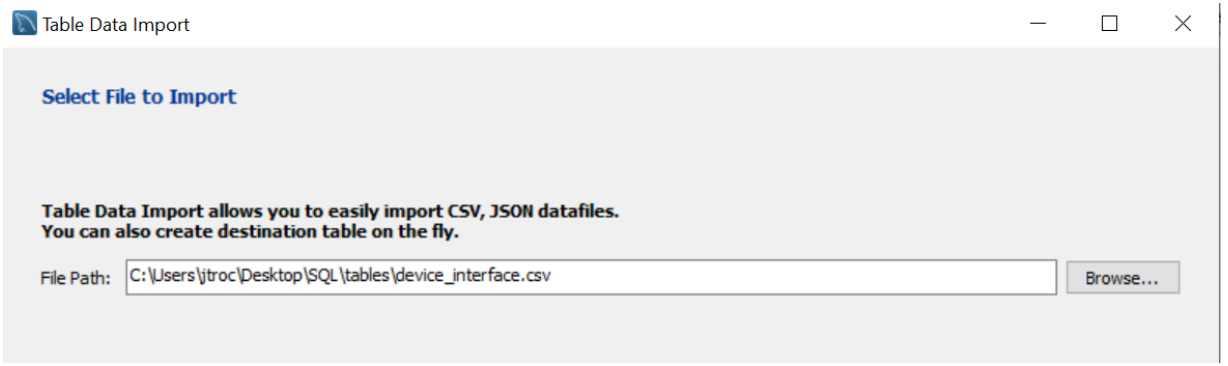
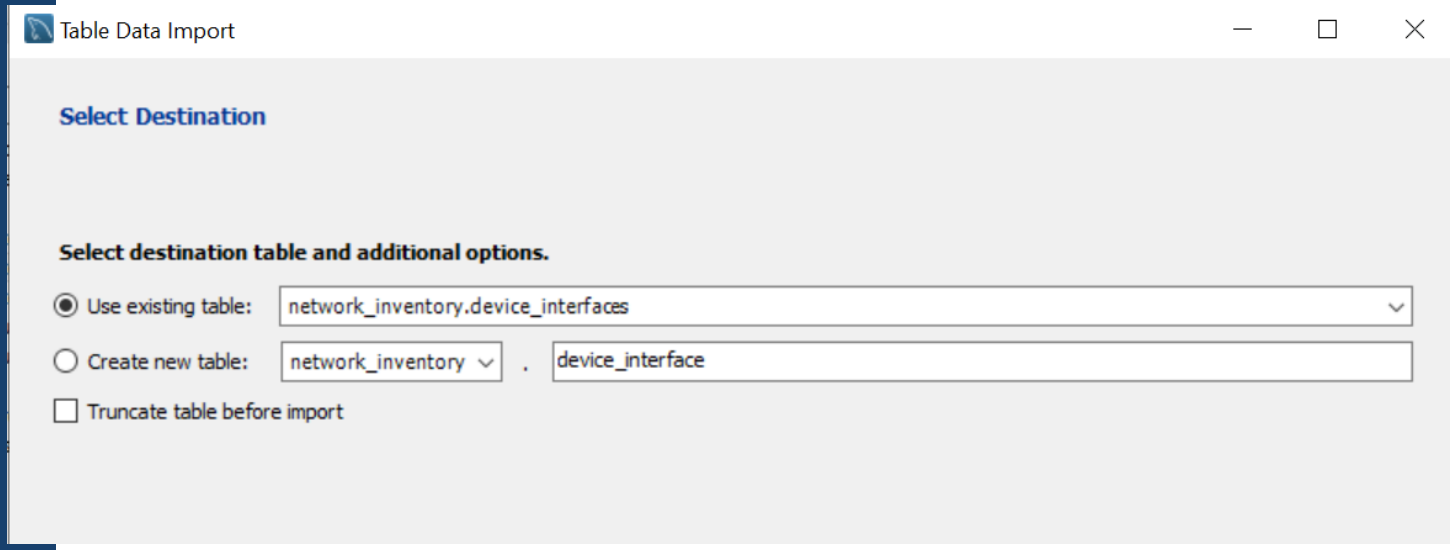


Table Data Import
Configure Import Settings
Detected file format: csv
Encoding:
utf-8
Columns:
Source Column
Dest Column
MODULE_MOD
MODULE_MOD
DEV_ID
DEV_ID
MODULE_SERIAL_NO
MODULE_SERIAL_N
MODULE_...
DEV_ID
MODULE_S...
J3300-NM...
Abu_10.10....
fGHeGhWn...
T6300-NM...
Abu_10.10....
ogkQ8P7m...
Q9300-N...
Acc_10.10....
XZLE8JnnH...
F8300-NM-J
Adi_10.10....
G9XLXDPdP...
S5300-NM...
Al _10.10.0.5
zyvPZ6g8Jp...
< Back
Next >
Cancel

Insert device_interface





Insertando datos a las tablas

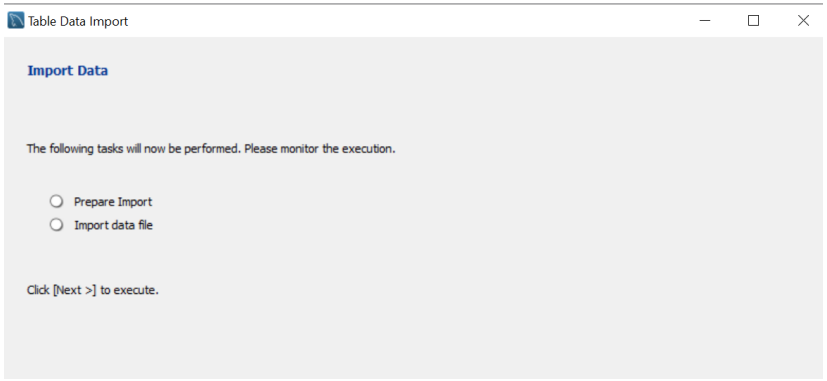
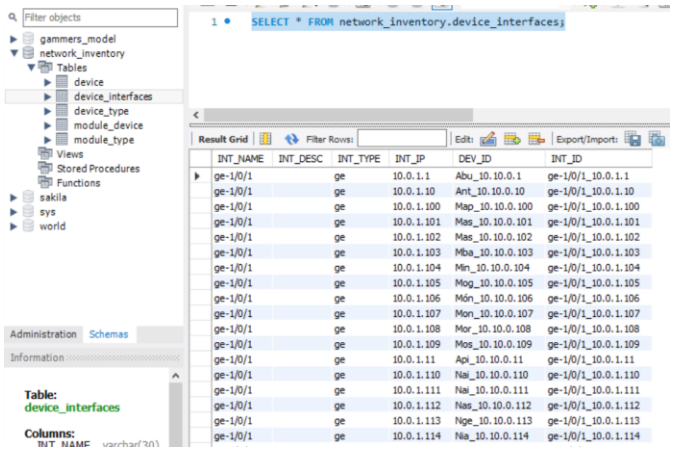


Table Data Import
Import Data
The following tasks will now be performed. Please monitor the execution.
Prepare Import
Import data file
Click [Next >] to execute.


Table Data Import
Import Results
File C:\Users\jtroc\Desktop\SQL\tables\device_interface.csv was imported in 1.980 s
Table network_inventory.device_interfaces has been used
378 records imported


Filter objects
gammers_model
network_inventory
Tables
device
device_interfaces
device_type
module_device
module_type
Views
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
Table:
device_interfaces
Columns:
SELECT * FROM network_inventory.device_interfaces;
Result Grid
Filter Rows:
Edit:
Export/Import:
INT_NAME INT_DESC INT_TYPE INT_IP DEV_ID INT_ID
ge-1/0/1 ge 10.0.1.1 Abu_10.10.0.1 ge-1/0/1_10.0.1.1
ge-1/0/1 ge 10.0.1.10 Ant_10.10.0.10 ge-1/0/1_10.0.1.10
ge-1/0/1 ge 10.0.1.100 Map_10.10.0.100 ge-1/0/1_10.0.1.100
ge-1/0/1 ge 10.0.1.101 Mas_10.10.0.101 ge-1/0/1_10.0.1.101
ge-1/0/1 ge 10.0.1.102 Mas_10.10.0.102 ge-1/0/1_10.0.1.102
ge-1/0/1 ge 10.0.1.103 Mba_10.10.0.103 ge-1/0/1_10.0.1.103
ge-1/0/1 ge 10.0.1.104 Min_10.10.0.104 ge-1/0/1_10.0.1.104
ge-1/0/1 ge 10.0.1.105 Mog_10.10.0.105 ge-1/0/1_10.0.1.105
ge-1/0/1 ge 10.0.1.106 Món_10.10.0.106 ge-1/0/1_10.0.1.106
ge-1/0/1 ge 10.0.1.107 Mon_10.10.0.107 ge-1/0/1_10.0.1.107
ge-1/0/1 ge 10.0.1.108 Mor_10.10.0.108 ge-1/0/1_10.0.1.108
ge-1/0/1 ge 10.0.1.109 Mos_10.10.0.109 ge-1/0/1_10.0.1.109
ge-1/0/1 ge 10.0.1.11 Api_10.10.0.11 ge-1/0/1_10.0.1.11
ge-1/0/1 ge 10.0.1.110 Nai_10.10.0.110 ge-1/0/1_10.0.1.110
ge-1/0/1 ge 10.0.1.111 Nai_10.10.0.111 ge-1/0/1_10.0.1.111
ge-1/0/1 ge 10.0.1.112 Nas_10.10.0.112 ge-1/0/1_10.0.1.112
ge-1/0/1 ge 10.0.1.113 Nge_10.10.0.113 ge-1/0/1_10.0.1.113
ge-1/0/1 ge 10.0.1.114 Nia_10.10.0.114 ge-1/0/1_10.0.1.114

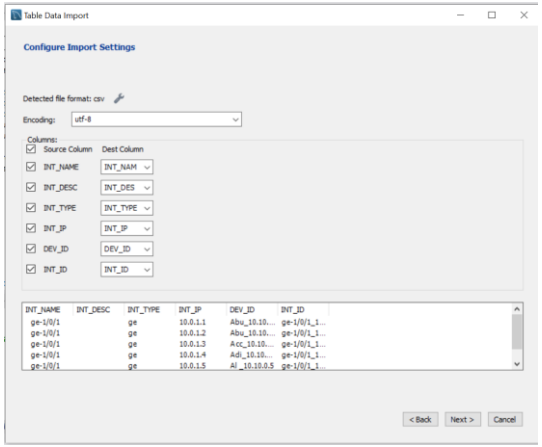
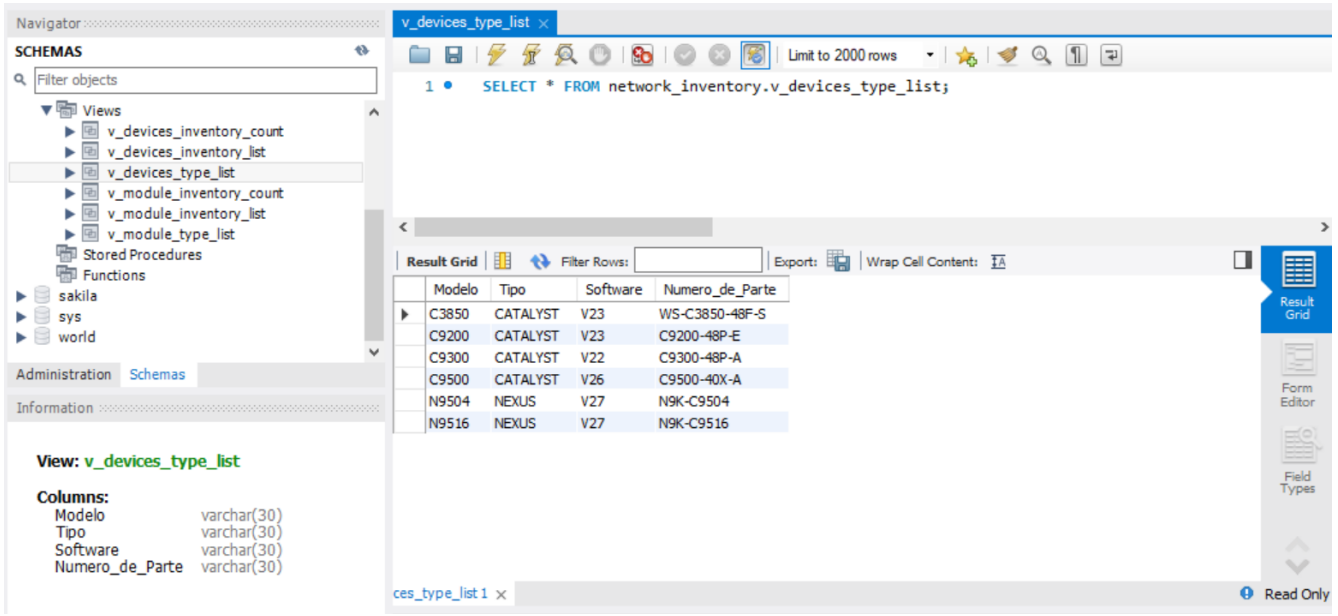
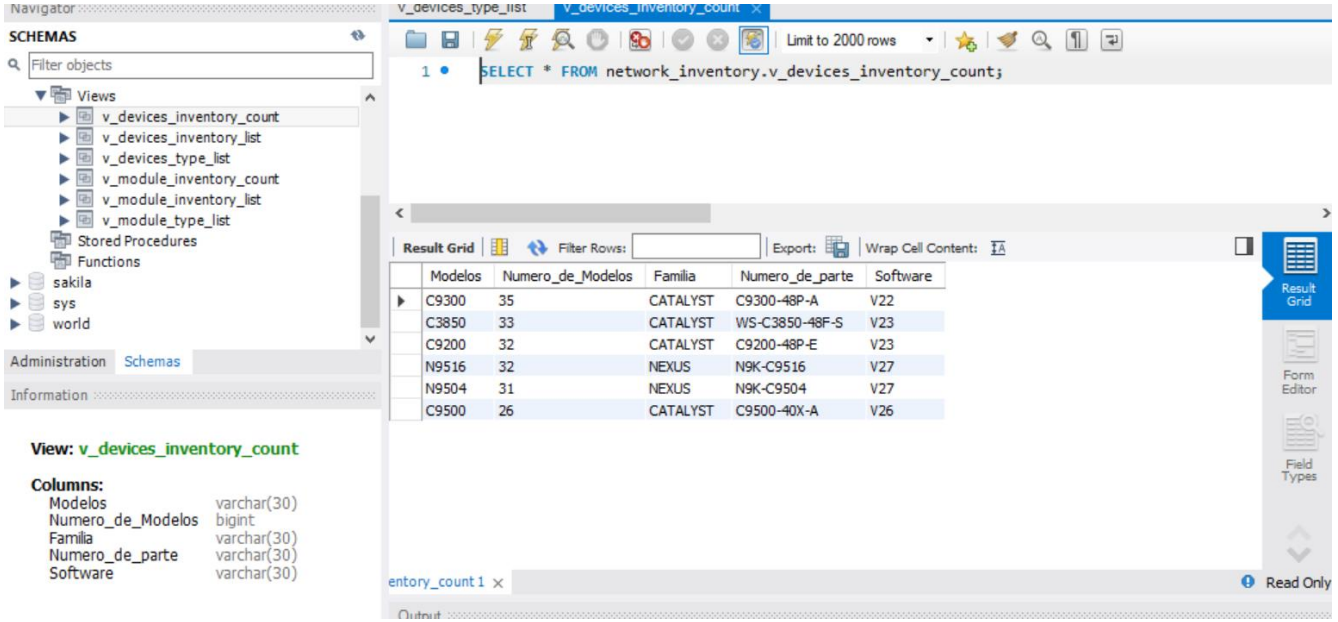


Table Data Import
Configure Import Settings
Detected file format: csv
Encoding: utf-8
Columns:
Source Column
Dest Column
INT_NAME
INT_DESC
INT_TYPE
INT_IP
DEV_ID
INT_ID
< Back
Next >
Cancel

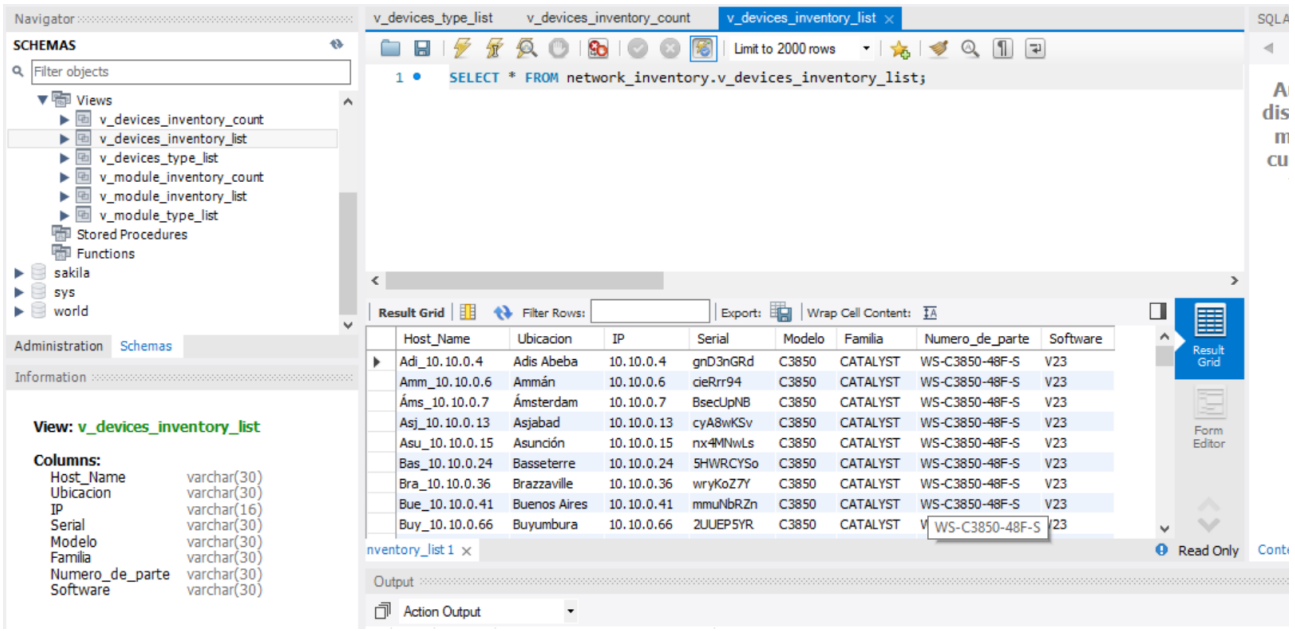
Vistas

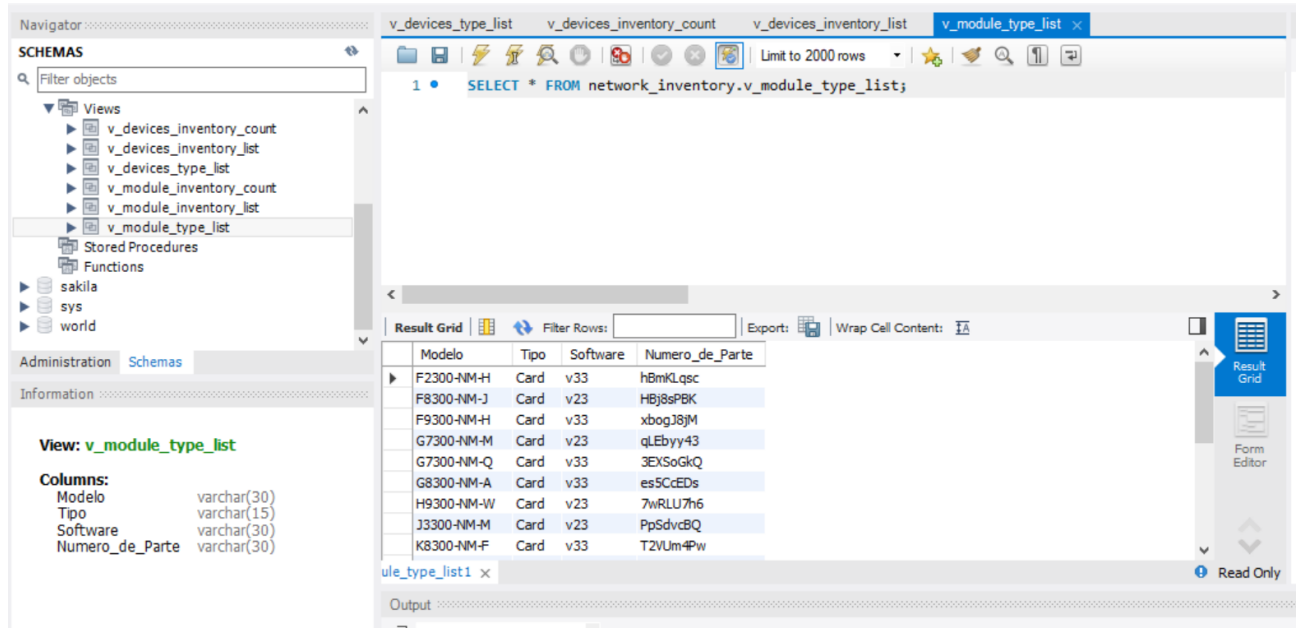
Se crean las distintas vistas para ser usadas por el personal con permiso de solo lectura, y así no trabajen en las tablas raw



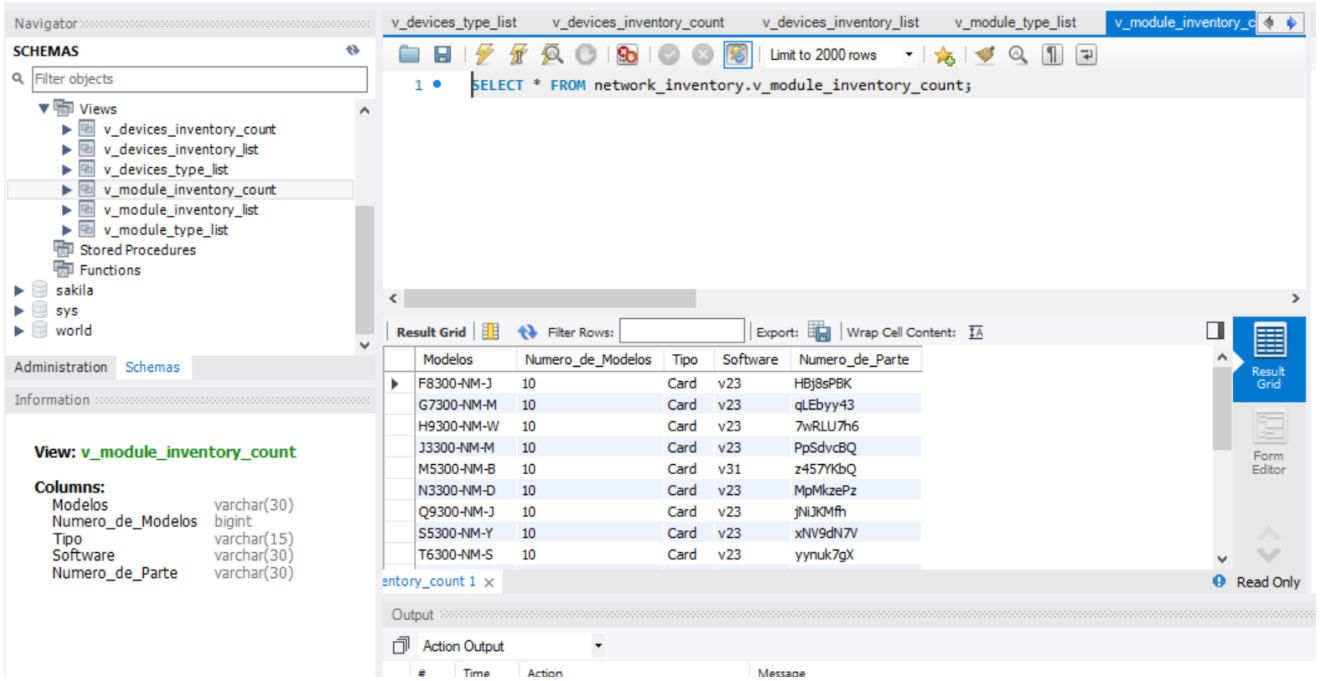


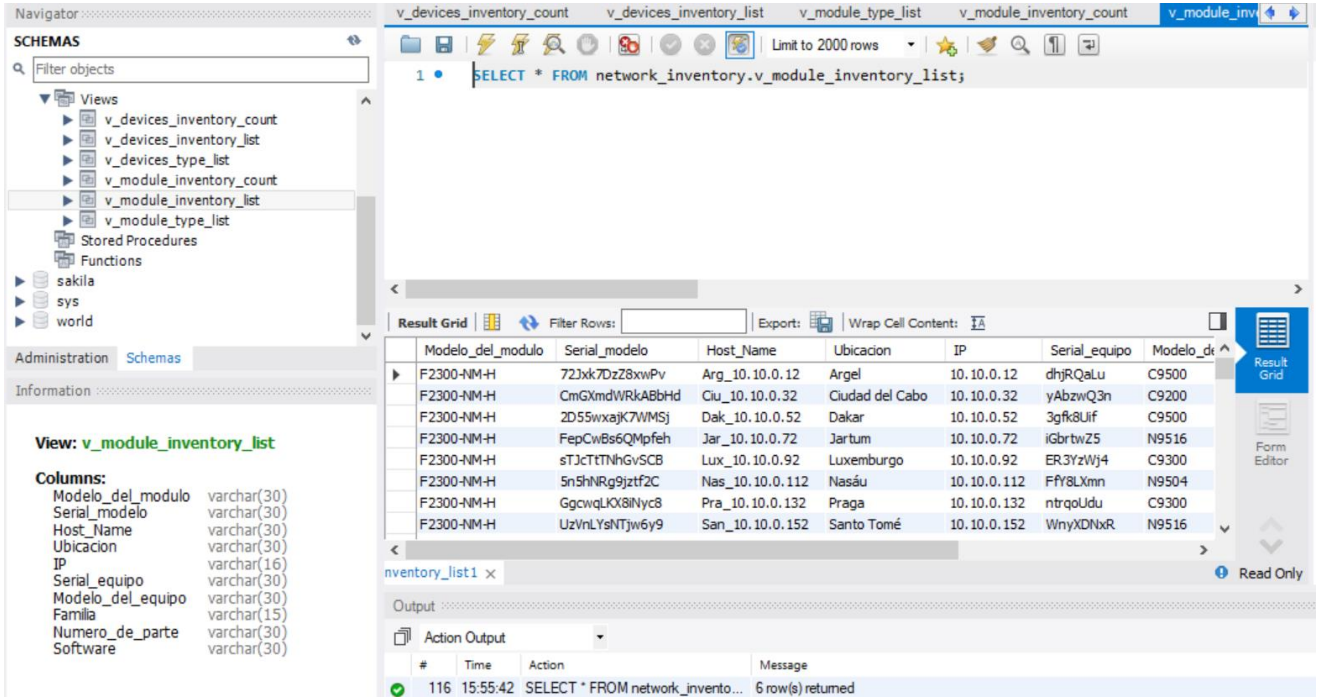
Vistas


Navigator
SCHEMAS
Filter objects
Views
v_devices_inventory_count
v_devices_inventory_list
v_devices_type_list
v_module_inventory_count
v_module_inventory_list
v_module_type_list
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
View: v_devices_inventory_list
Columns:
Host_Name varchar(30)
Ubicacion varchar(30)
IP varchar(16)
Serial varchar(30)
Modelo varchar(30)
Familia varchar(30)
Numero_de_parte varchar(30)
Software varchar(30)
v_devices_type_list
v_devices_inventory_count
v_devices_inventory_list
Limit to 2000 rows
1 SELECT * FROM network_inventory.v_devices_inventory_list;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Host_Name Ubicacion IP Serial Modelo Familia Numero_de_parte Software
Adi_10.10.0.4 Adis Abeba 10.10.0.4 gnD3nGRd C3850 CATALYST WS-C3850-48F-S V23
Amm_10.10.0.6 Ammán 10.10.0.6 cieRrr94 C3850 CATALYST WS-C3850-48F-S V23
Áms_10.10.0.7 Ámsterdam 10.10.0.7 BsecUpNB C3850 CATALYST WS-C3850-48F-S V23
Asj_10.10.0.13 Asjabad 10.10.0.13 cyA8wKSv C3850 CATALYST WS-C3850-48F-S V23
Asu_10.10.0.15 Asunción 10.10.0.15 nx4MNwLs C3850 CATALYST WS-C3850-48F-S V23
Bas_10.10.0.24 Basseterre 10.10.0.24 5HWRCYSo C3850 CATALYST WS-C3850-48F-S V23
Bra_10.10.0.36 Brazzaville 10.10.0.36 wryKoZ7Y C3850 CATALYST WS-C3850-48F-S V23
Bue_10.10.0.41 Buenos Aires 10.10.0.41 mmuNbRZn C3850 CATALYST WS-C3850-48F-S V23
Buy_10.10.0.66 Buyumbura 10.10.0.66 2UUEP5YR C3850 CATALYST
WS-C3850-48F-S
Result Grid
Form Editor
Read Only
Output
Action Output


Navigator
SCHEMAS
Filter objects
Views
v_devices_inventory_count
v_devices_inventory_list
v_devices_type_list
v_module_inventory_count
v_module_inventory_list
v_module_type_list
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
View: v_module_type_list
Columns:
Modelo varchar(30)
Tipo varchar(15)
Software varchar(30)
Numero_de_Parte varchar(30)
v_devices_type_list
v_devices_inventory_count
v_devices_inventory_list
v_module_type_list
Limit to 2000 rows
1 SELECT * FROM network_inventory.v_module_type_list;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Modelo Tipo Software Numero_de_Parte
F2300-NM-H Card v33 hBmKLqsc
F8300-NM-J Card v23 HBj8sPBK
F9300-NM-H Card v33 xbogJ8jM
G7300-NM-M Card v23 qLEbyy43
G7300-NM-Q Card v33 3EXSoGkQ
G8300-NM-A Card v33 es5CcEDs
H9300-NM-W Card v23 7wRLU7h6
J3300-NM-M Card v23 PpSdvcBQ
K8300-NM-F Card v33 T2VUm4Pw
Result Grid
Form Editor
Read Only
Output

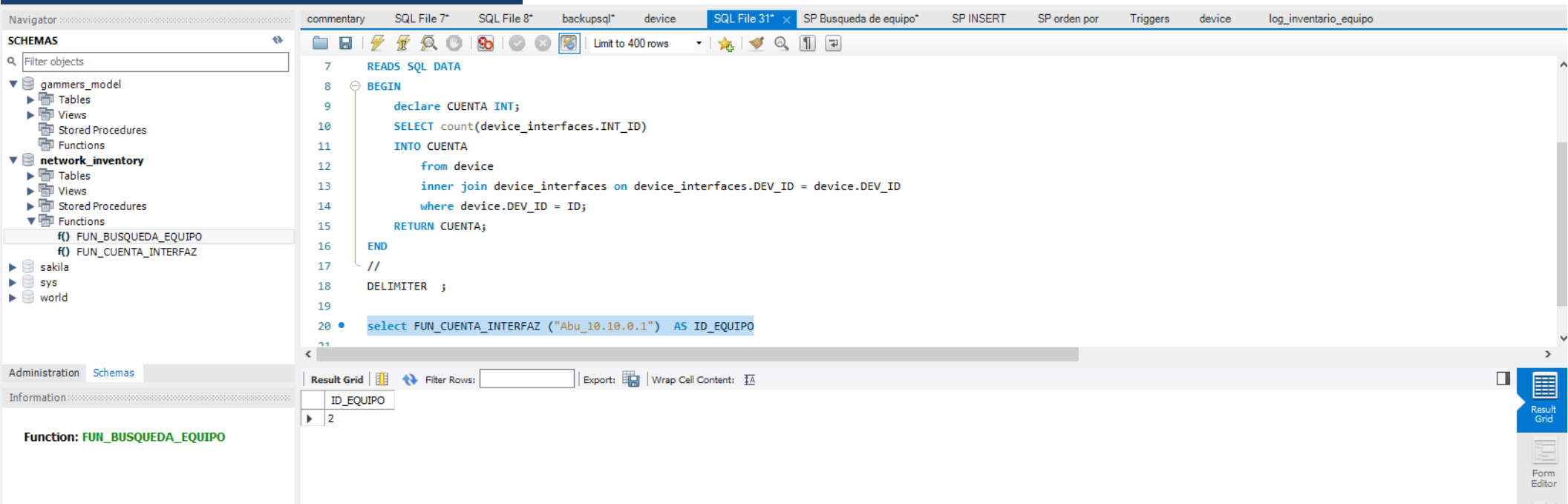
Vistas


Navigator
SCHEMAS
Filter objects
Views
v_devices_inventory_count
v_devices_inventory_list
v_devices_type_list
v_module_inventory_count
v_module_inventory_list
v_module_type_list
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
View: v_module_inventory_count
Columns:
Modelos varchar(30)
Numero_de_Modelos bigint
Tipo varchar(15)
Software varchar(30)
Numero_de_Parte varchar(30)
v_devices_type_list
v_devices_inventory_count
v_devices_inventory_list
v_module_type_list
Limit to 2000 rows
1 SELECT * FROM network_inventory.v_module_inventory_count;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Modelos Numero_de_Modelos Tipo Software Numero_de_Parte
F8300-NM-J 10 Card v23 HBj8sPBK
G7300-NM-M 10 Card v23 qLEbyy43
H9300-NM-W 10 Card v23 7wRLU7h6
J3300-NM-M 10 Card v23 PpSdvcBQ
M5300-NM-B 10 Card v31 z457YKbQ
N3300-NM-D 10 Card v23 MpMkzePz
Q9300-NM-J 10 Card v23 jNiJKMfh
S5300-NM-Y 10 Card v23 xNV9dN7V
T6300-NM-S 10 Card v23 yynuk7gX
Result Grid
Form Editor
Read Only
Output
Action Output


Navigator
SCHEMAS
Filter objects
Views
v_devices_inventory_count
v_devices_inventory_list
v_devices_type_list
v_module_inventory_count
v_module_inventory_list
v_module_type_list
Stored Procedures
Functions
sakila
sys
world
Administration
Schemas
Information
View: v_module_inventory_list
Columns:
Modelo_del_modulo varchar(30)
Serial_modelo varchar(30)
Host_Name varchar(30)
Ubicacion varchar(30)
IP varchar(16)
Serial_equipo varchar(30)
Modelo_del_equipo varchar(30)
Familia varchar(15)
Numero_de_parte varchar(30)
Software varchar(30)
v_devices_inventory_count
v_devices_inventory_list
v_module_type_list
v_module_inventory_count
Limit to 2000 rows
1 SELECT * FROM network_inventory.v_module_inventory_list;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Modelo_del_modulo Serial_modelo Host_Name Ubicacion IP Serial_equipo
F2300-NM-H 72Jxk7DzZ8xwPv Arg_10.10.0.12 Argel 10.10.0.12 dhjRQaLu C9500
F2300-NM-H CmGXmdWRkABbHd Ciu_10.10.0.32 Ciudad del Cabo 10.10.0.32 yAbzwQ3n C9200
F2300-NM-H 2D55wxajK7WMSj Dak_10.10.0.52 Dakar 10.10.0.52 3gfk8Uif C9500
F2300-NM-H FepCwBs6QMpfeh Jar_10.10.0.72 Jartum 10.10.0.72 iGbrtwZ5 N9516
F2300-NM-H sTJcTtTNhGvSCB Lux_10.10.0.92 Luxemburgo 10.10.0.92 ER3YzWj4 C9300
F2300-NM-H 5n5hNRg9jztf2C Nas_10.10.0.112 Nasáu 10.10.0.112 FfY8LXmn N9504
F2300-NM-H GgcwqLKX8iNyc8 Pra_10.10.0.132 Praga 10.10.0.132 ntrqoUdu C9300
F2300-NM-H UzVnLYsNTjw6y9 San_10.10.0.152 Santo Tomé 10.10.0.152 WnyXDNxR N9516
Result Grid
Form Editor
Read Only
Output
Action Output
Time Action Message
116 15:55:42 SELECT * FROM network_invento... 6 row(s) returned

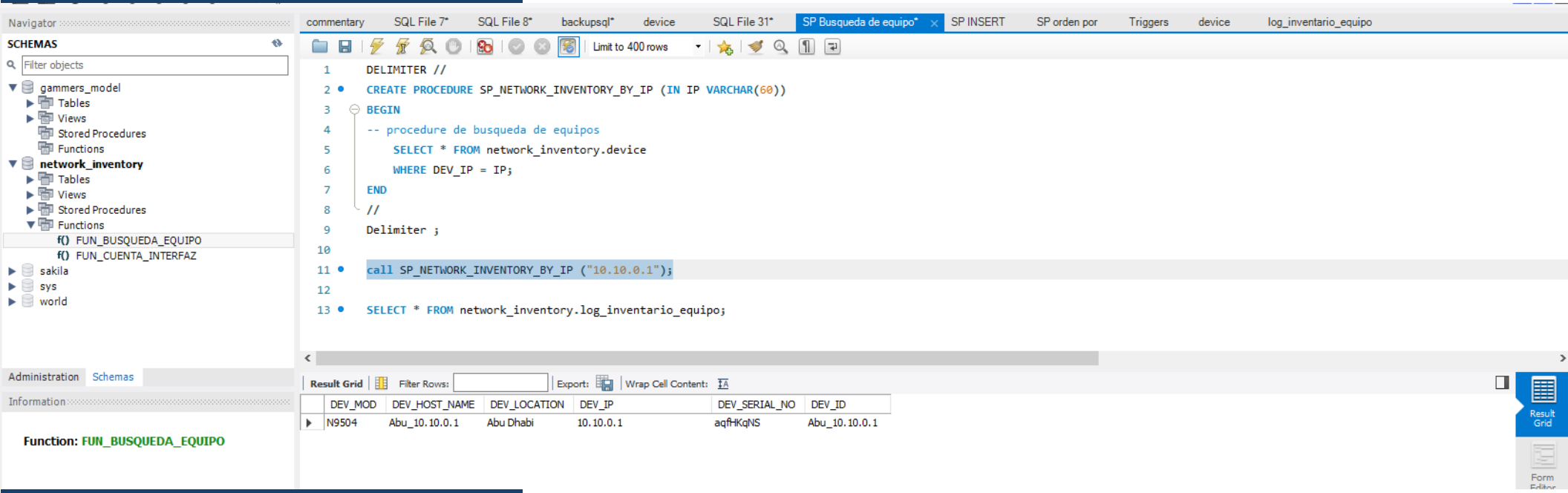
Pruebas Funciones

La siguiente función cuenta la cantidad de interfaces por equipo.



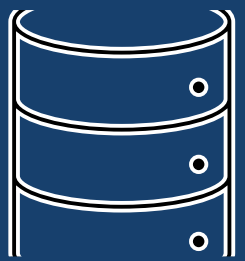
Pruebas Funciones

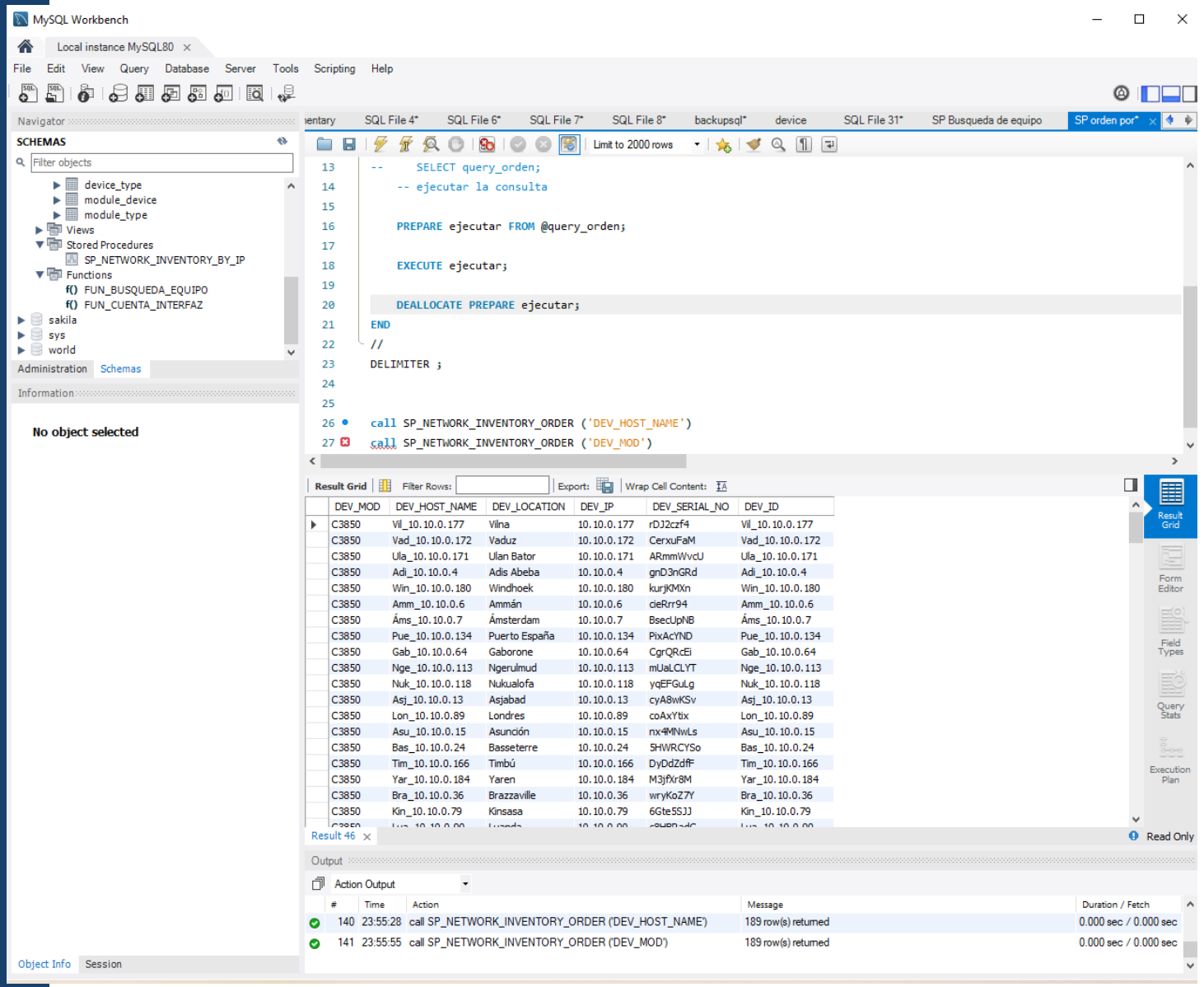
La siguiente función esta hecha para que los usuarios que solo conocen la IP del equipo puedan traerla información del equipo y ver si existe en la tabla



Muestra de SP funcionando

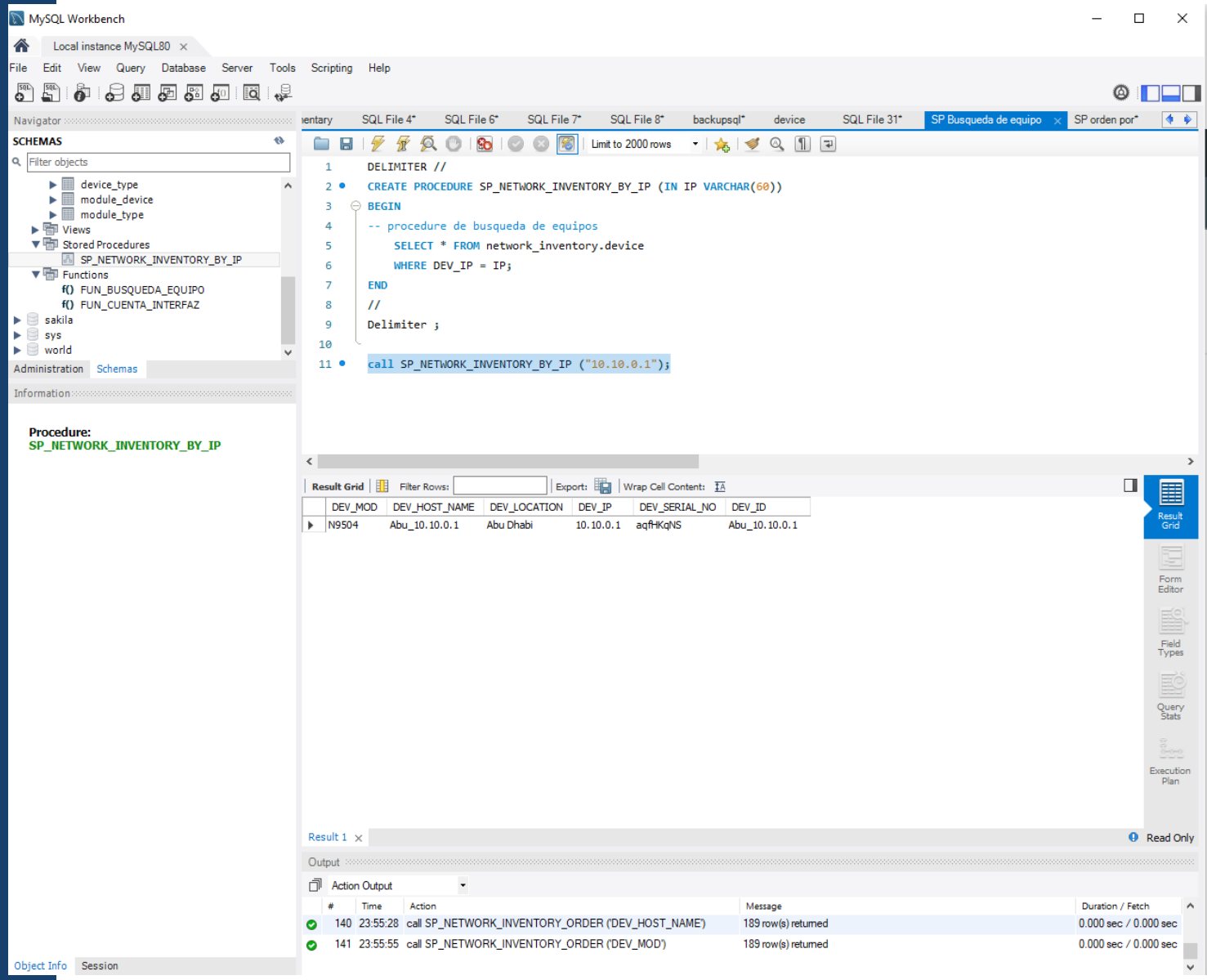
Se realiza el SP para que los usuarios puedan ordenar por hostname y o modelos, ya que son las dos columnas mas utilizadas.





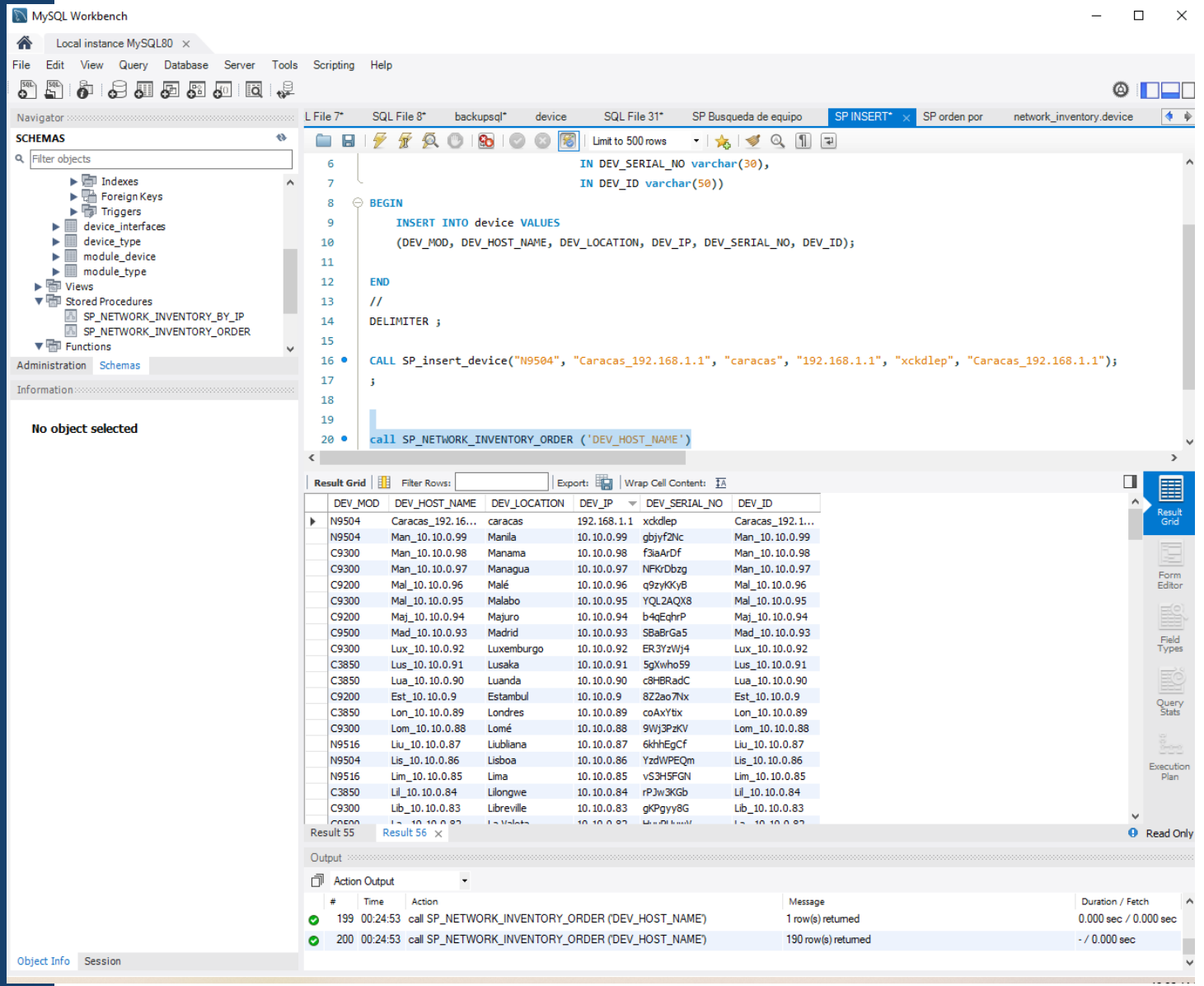
Muestra de SP funcionando

Se realiza el SP para que los usuarios puedan traer la información del equipo y su inventario para el uso de auditorias



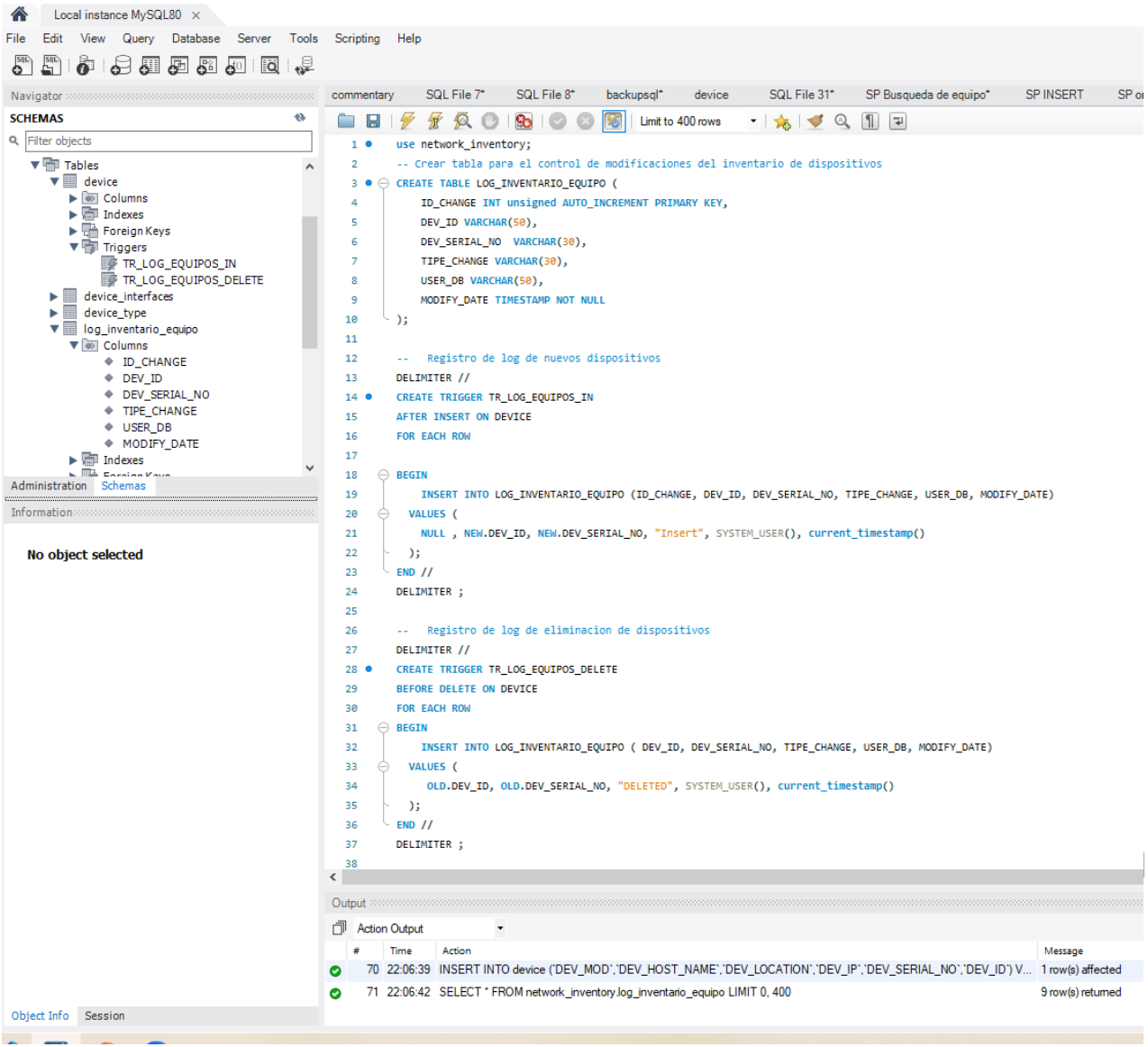
Muestra de SP funcionando

Se crea un SP para la inserción de datos

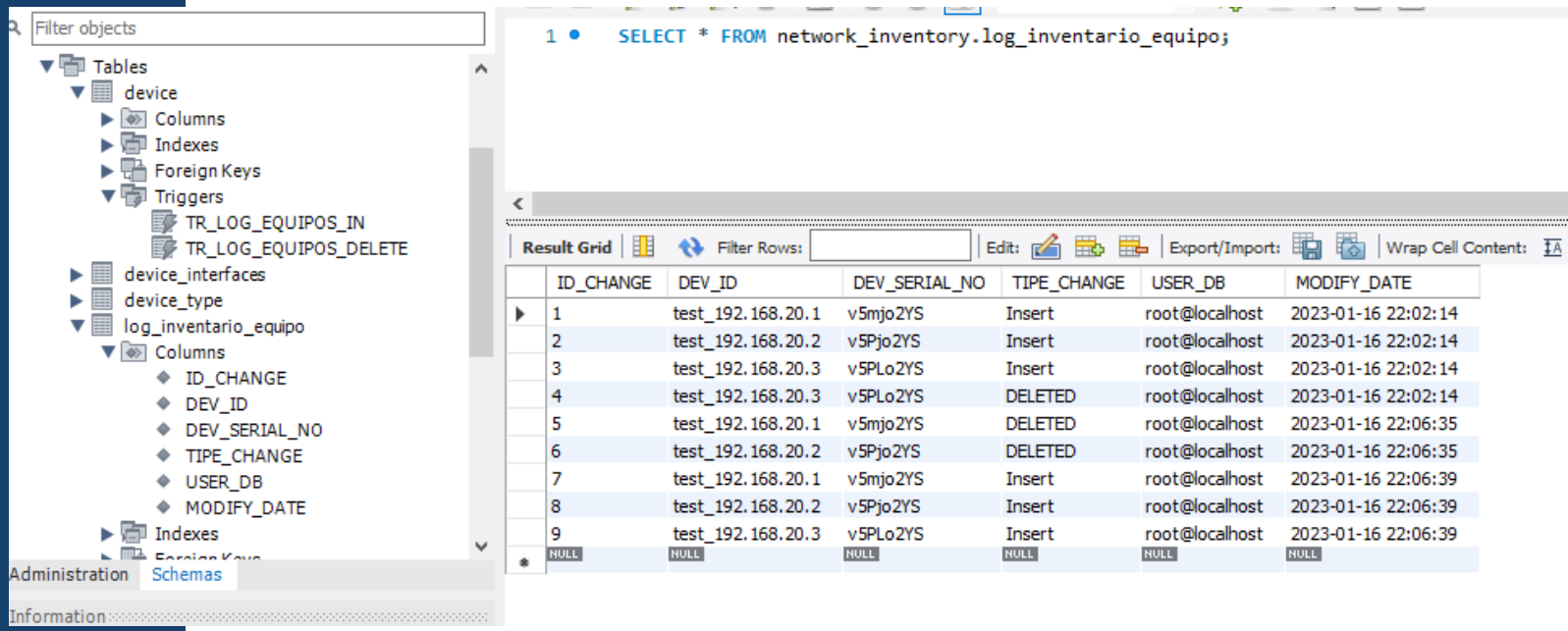


Creación de Tabla log mas 2 triggers

Se crean los triggers para el control de log de ingreso, modificación o eliminación de cualquier dato en la tabla de equipos



Pruebas realizadas triggers



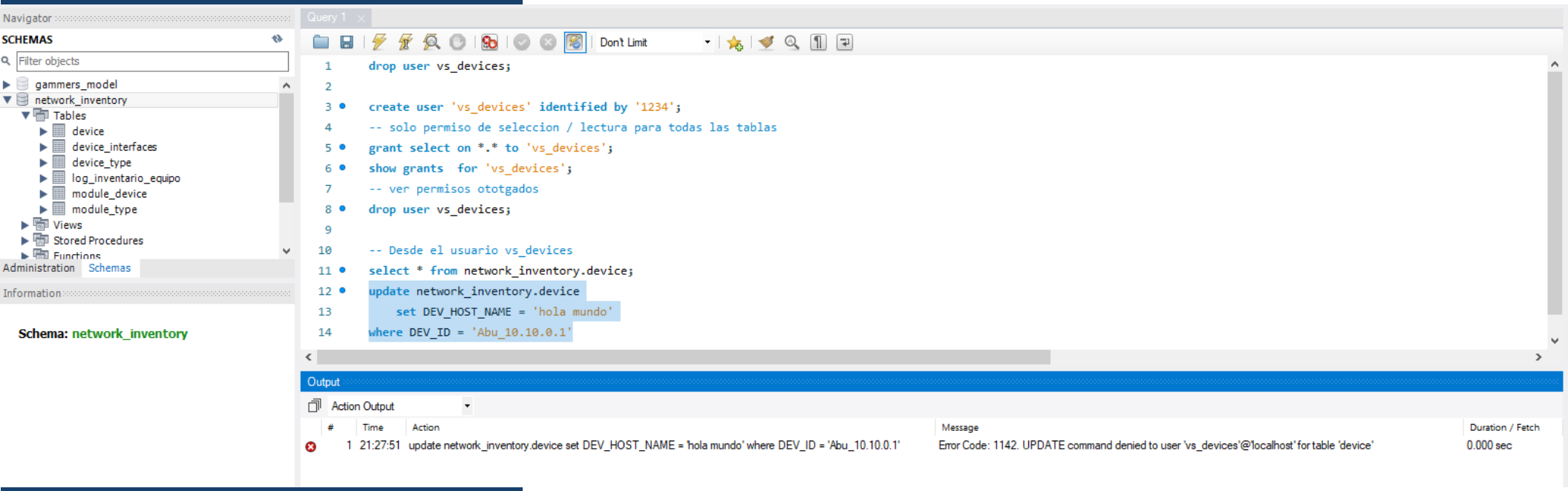
ID_CHANGE	DEV_ID	DEV_SERIAL_NO	TIPE_CHANGE	USER_DB	MODIFY_DATE
1	test_192.168.20.1	v5mjo2YS	Insert	root@localhost	2023-01-16 22:02:14
2	test_192.168.20.2	v5Pjo2YS	Insert	root@localhost	2023-01-16 22:02:14
3	test_192.168.20.3	v5PLo2YS	Insert	root@localhost	2023-01-16 22:02:14
4	test_192.168.20.3	v5PLo2YS	DELETED	root@localhost	2023-01-16 22:02:14
5	test_192.168.20.1	v5mjo2YS	DELETED	root@localhost	2023-01-16 22:06:35
6	test_192.168.20.2	v5Pjo2YS	DELETED	root@localhost	2023-01-16 22:06:35
7	test_192.168.20.1	v5mjo2YS	Insert	root@localhost	2023-01-16 22:06:39
8	test_192.168.20.2	v5Pjo2YS	Insert	root@localhost	2023-01-16 22:06:39
9	test_192.168.20.3	v5PLo2YS	Insert	root@localhost	2023-01-16 22:06:39
NULL	NULL	NULL	NULL	NULL	NULL

```
-- Prueba de nuevo registro
INSERT INTO device (`DEV_MOD`,`DEV_HOST_NAME`,`DEV_LOCATION`,`DEV_IP`,`DEV_SERIAL_NO`,`DEV_ID`) VALUES ('C9300','test_192.168.20.1','test','192.168.20.1','v5mjo2YS','test_192.168.20.1');
INSERT INTO device (`DEV_MOD`,`DEV_HOST_NAME`,`DEV_LOCATION`,`DEV_IP`,`DEV_SERIAL_NO`,`DEV_ID`) VALUES ('C9300','test_192.168.20.2','test','192.168.20.2','v5Pjo2YS','test_192.168.20.2');
INSERT INTO device (`DEV_MOD`,`DEV_HOST_NAME`,`DEV_LOCATION`,`DEV_IP`,`DEV_SERIAL_NO`,`DEV_ID`) VALUES ('C9300','test_192.168.20.3','test','192.168.20.3','v5PLo2YS','test_192.168.20.3');

-- prueba de eliminacion de registro
DELETE FROM device where DEV_ID = "test_192.168.20.1" ;
DELETE FROM device where DEV_ID = "test_192.168.20.2" ;
DELETE FROM device where DEV_ID = "test_192.168.20.3" ;
```

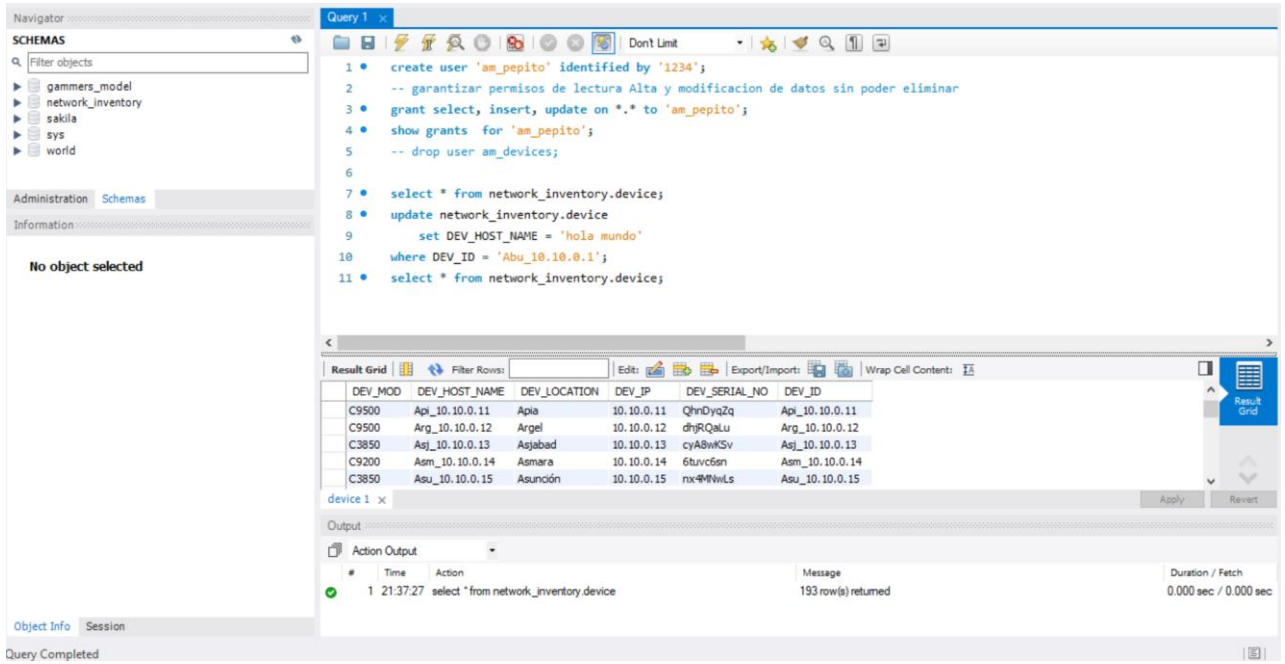
Implementación de sentencias

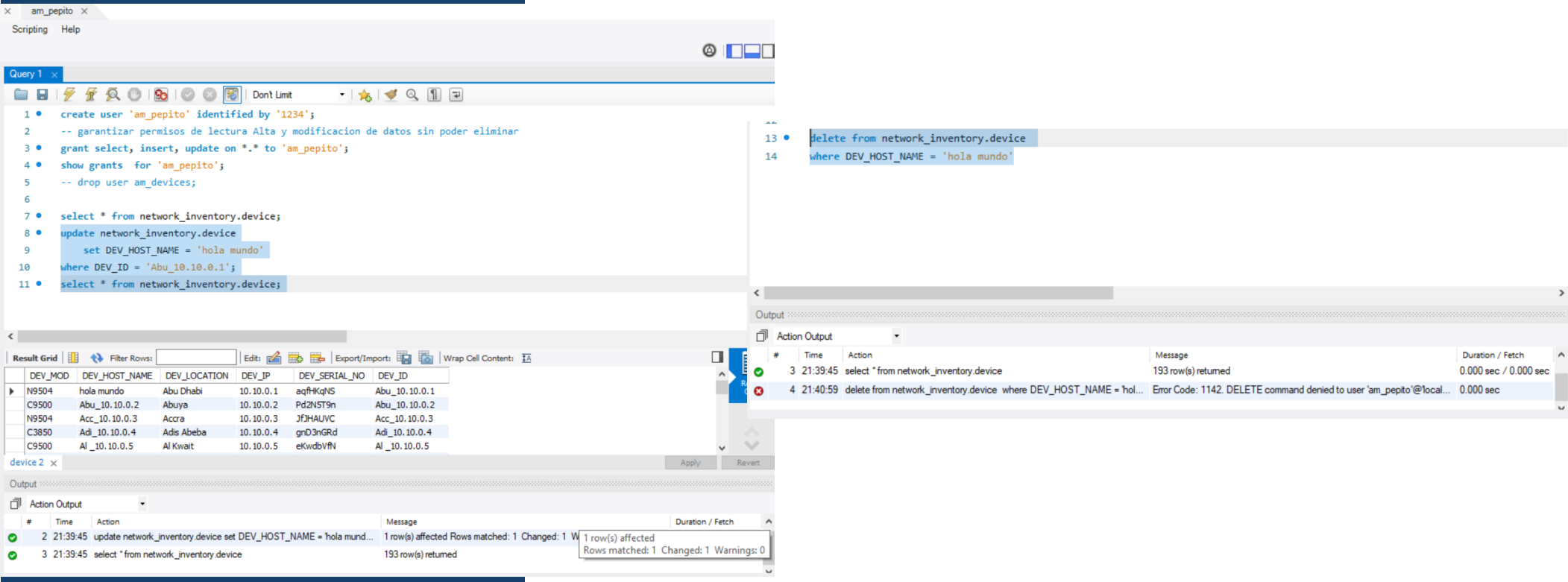
1. Creación de usuario con acceso solo lectura a todas las tablas y muestra de error al querer editar un registro de una tabla



2. Creación de usuario con acceso de AMV alta modificación y vista pero no de eliminación de datos a todas las tablas.

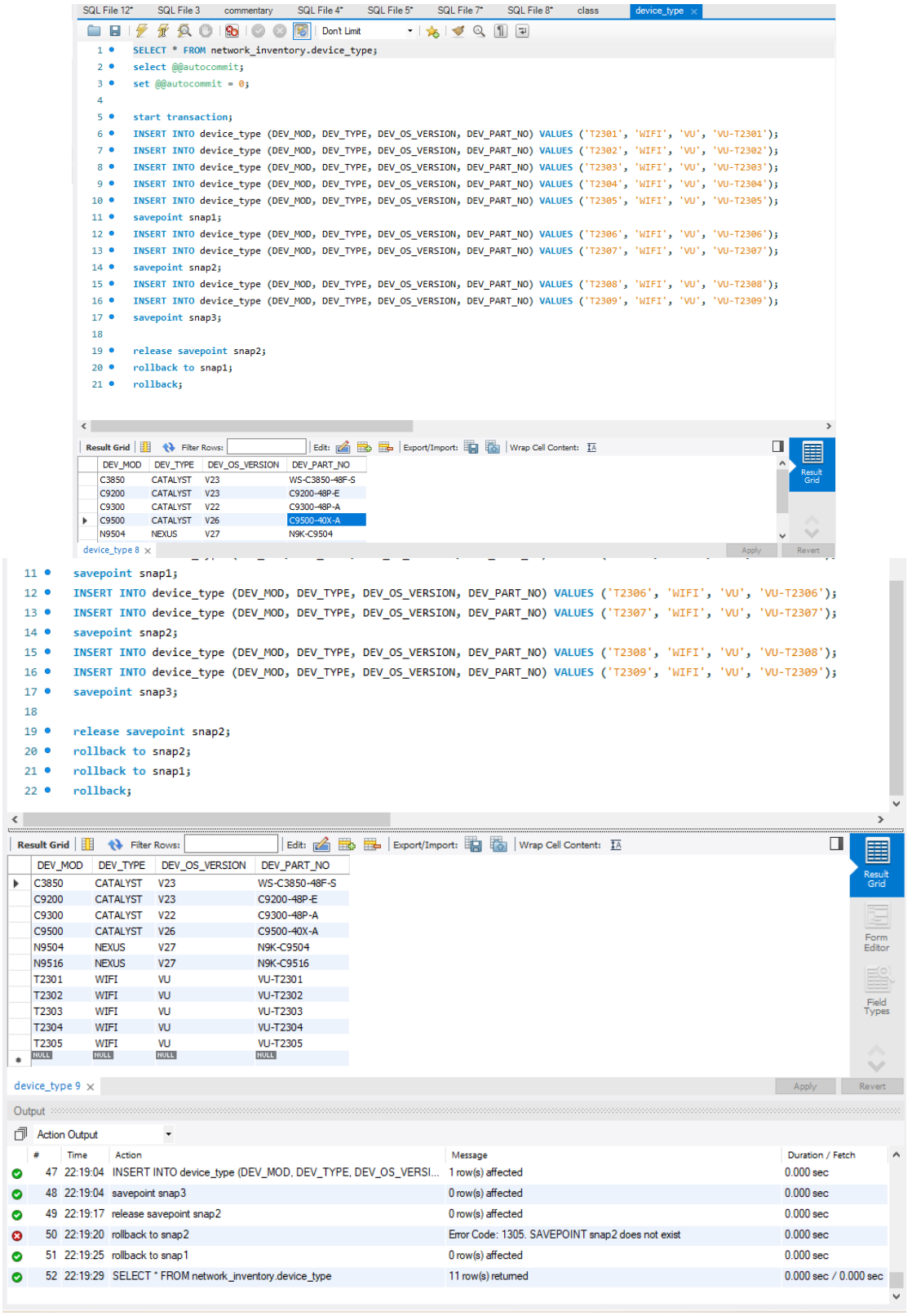
Se visualiza la modificación exitosa de un registro de una tabla, mas error al querer eliminar el registro.



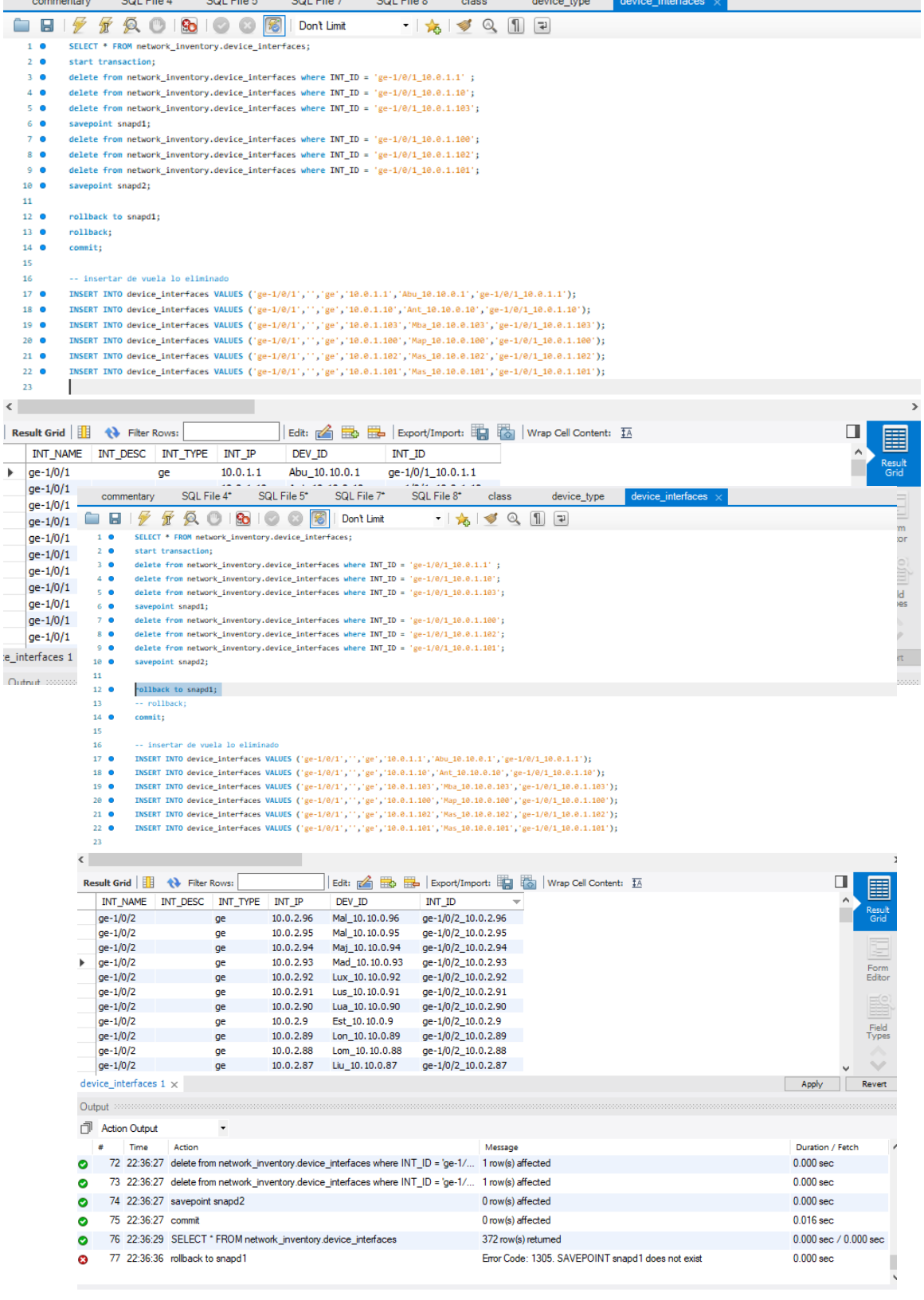


Sentencias del sublenguaje TCL

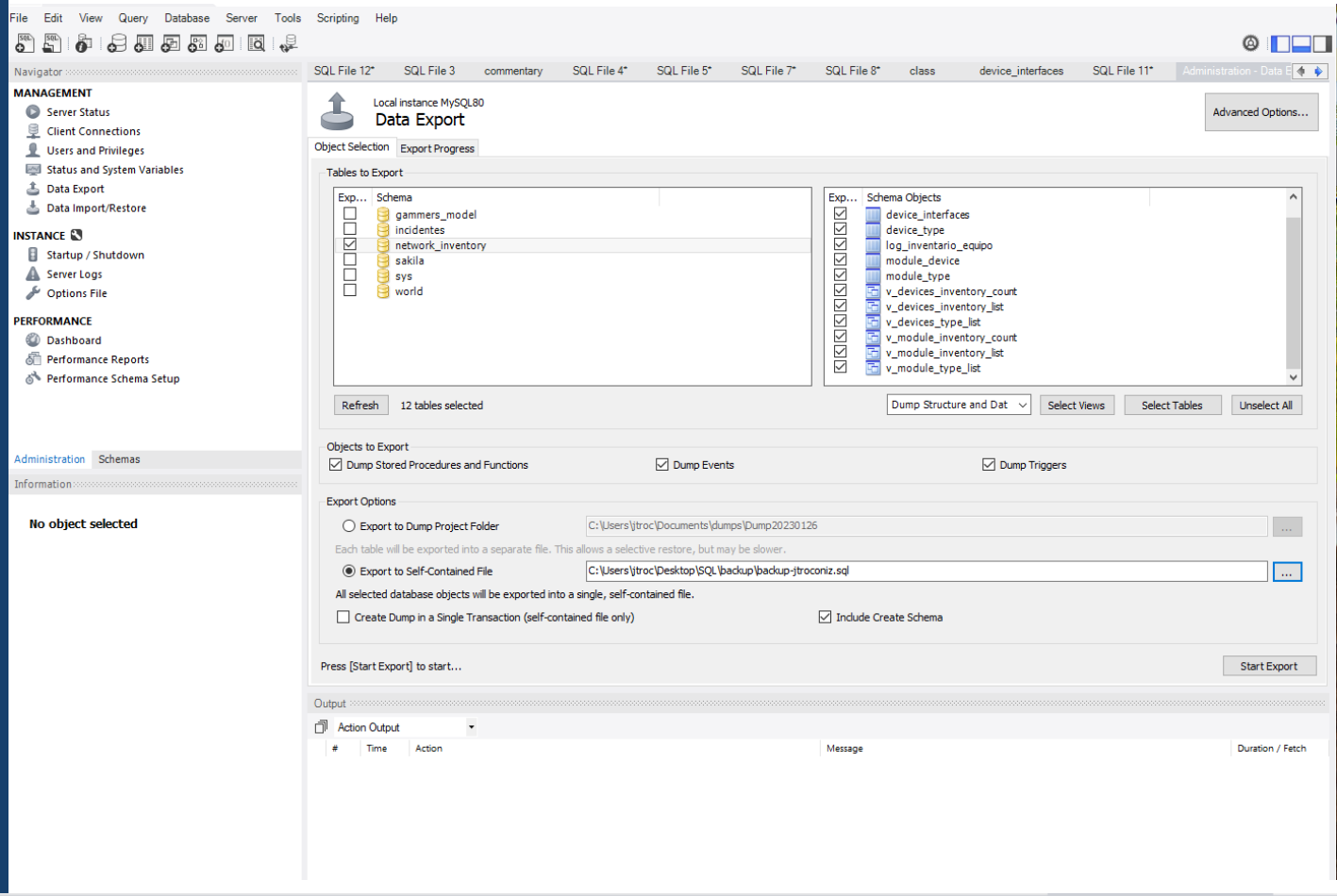
1. Inserción de nuevos registros con dos savepoint.

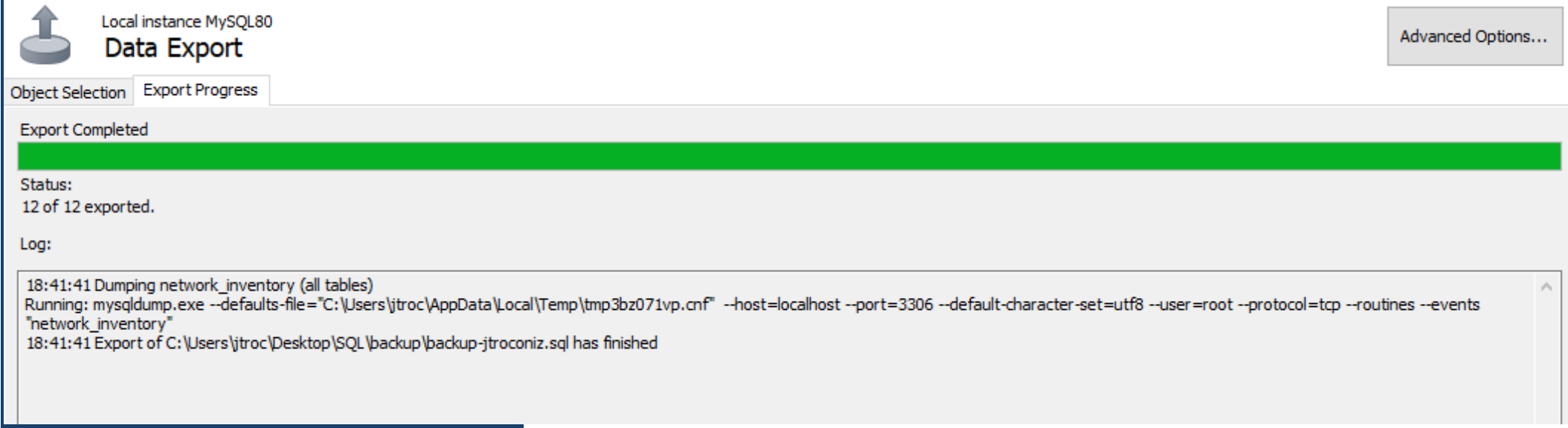


2. Eliminacion de productos con savepoint y commit para la eliminación definitiva



BACKUP


File Edit View Query Database Server Tools Scripting Help
Navigator
MANAGEMENT
Server Status
Client Connections
Users and Privileges
Status and System Variables
Data Export
Data Import/Restore
INSTANCE
Startup / Shutdown
Server Logs
Options File
PERFORMANCE
Dashboard
Performance Reports
Performance Schema Setup
Administration Schemas
Information
No object selected
SQL File 12* SQL File 3 commentary SQL File 4* SQL File 5* SQL File 7* SQL File 8* class device_interfaces SQL File 11*
Local instance MySQL80
Data Export
Advanced Options...
Object Selection Export Progress
Tables to Export
Exp... Schema
gammers_model
incidentes
network_inventory
sakila
sys
world
Exp... Schema Objects
device_interfaces
device_type
log_inventario_equipo
module_device
module_type
v_devices_inventory_count
v_devices_inventory_list
v_devices_type_list
v_module_inventory_count
v_module_inventory_list
v_module_type_list
Refresh
12 tables selected
Dump Structure and Dat
Select Views
Select Tables
Unselect All
Objects to Export
Dump Stored Procedures and Functions
Dump Events
Dump Triggers
Export Options
Export to Dump Project Folder
C:\Users\jtroc\Documents\dumps\Dump20230126
Each table will be exported into a separate file. This allows a selective restore, but may be slower.
Export to Self-Contained File
C:\Users\jtroc\Desktop\SQL\backup\backup-jtroconiz.sql
All selected database objects will be exported into a single, self-contained file.
Create Dump in a Single Transaction (self-contained file only)
Include Create Schema
Press [Start Export] to start...
Start Export
Output
Action Output
Time Action Message Duration / Fetch


Local instance MySQL80
Data Export
Advanced Options...
Object Selection
Export Progress
Export Completed
Status:
12 of 12 exported.
Log:
18:41:41 Dumping network_inventory (all tables)
Running: mysqldump.exe --defaults-file="C:\Users\jtroc\AppData\Local\Temp\tmp3bz071vp.cnf" --host=localhost --port=3306 --default-character-set=utf8 --user=root --protocol=tcp --routines --events "network_inventory"
18:41:41 Export of C:\Users\jtroc\Desktop\SQL\backup\backup-jtroconiz.sql has finished

Tecnologías utilizadas

My SQL Workbench

Excel

Draw.io

PDF

GitHub

VisualStudio Code

Word

Note ++

Data Base FIle

https://github.com/jtroconiz/SQL