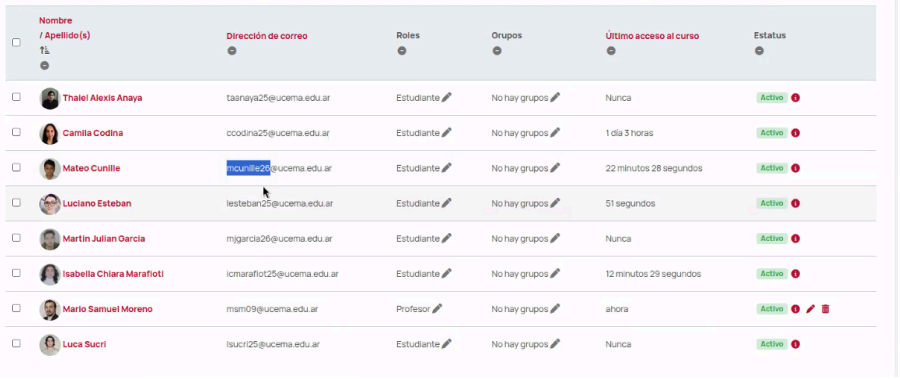
Clase 1 - BD2

#bd_2_tag

Contenido



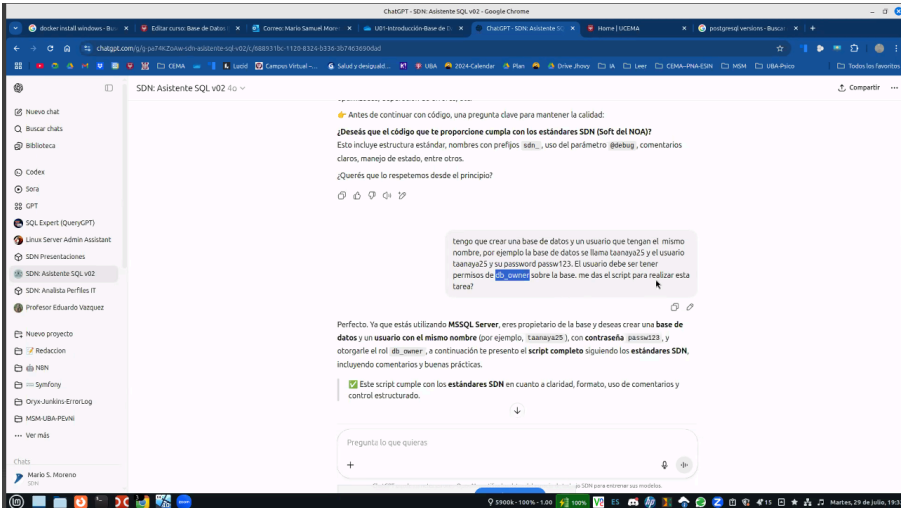
Nombre / Apellido(s)	Dirección de correo	Roles	Grupos	Último acceso al curso	Estatus
Thaiel Alexis Anaya	taanaya25@ucema.edu.ar	Estudiante	No hay grupos	Nunca	Activo
Camila Codina	ccodina25@ucema.edu.ar	Estudiante	No hay grupos	1 día 3 horas	Activo
Mateo Cunille	mcunille25@ucema.edu.ar	Estudiante	No hay grupos	22 minutos 28 segundos	Activo
Luciano Esteban	lesteban25@ucema.edu.ar	Estudiante	No hay grupos	51 segundos	Activo
Martin Julian Garcia	mjgarcia26@ucema.edu.ar	Estudiante	No hay grupos	Nunca	Activo
Isabella Chiara Marafioti	icmarafiot25@ucema.edu.ar	Estudiante	No hay grupos	12 minutos 29 segundos	Activo
Mario Samuel Moreno	msm09@ucema.edu.ar	Profesor	No hay grupos	ahora	Activo
Luca Sucri	lsucri25@ucema.edu.ar	Estudiante	No hay grupos	Nunca	Activo

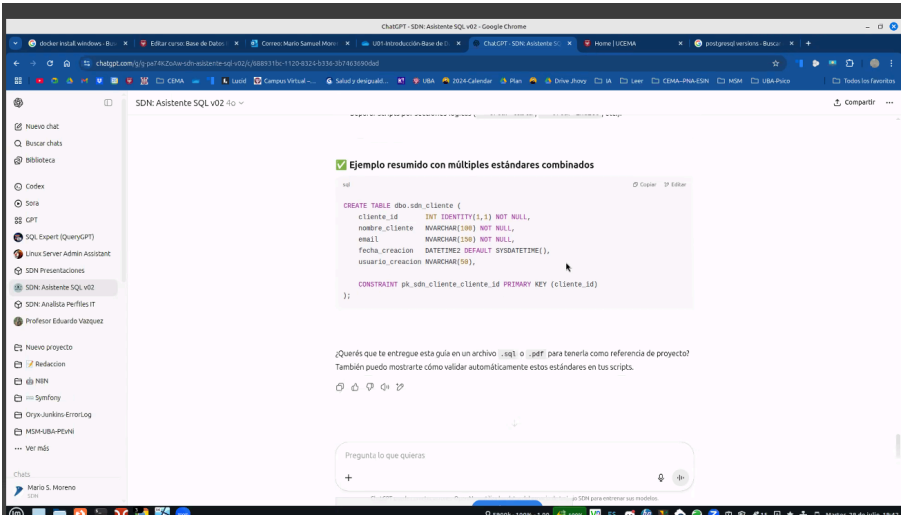
Usuario generado a partir de acá

Parciales

- 1: Cubo des normalizado
- 2: Proyecto individual
  - armar der de proyecto
  - poblar tablas
  - armar stored procedures
  - armado de auditoría con triggers de la bd

Intro con GPT

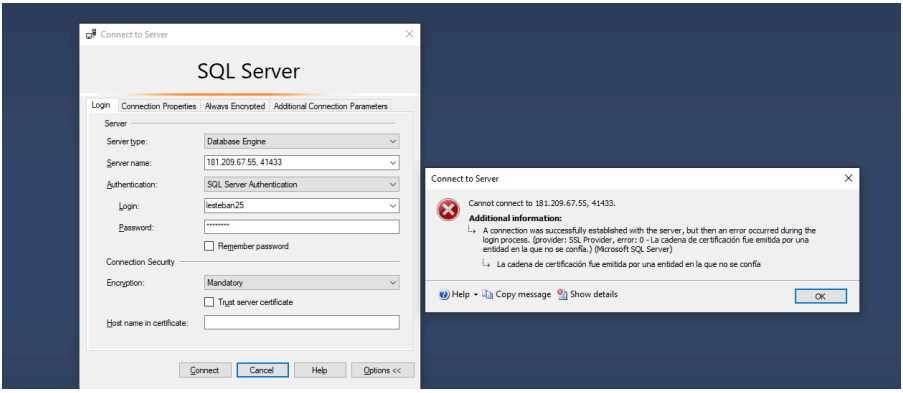




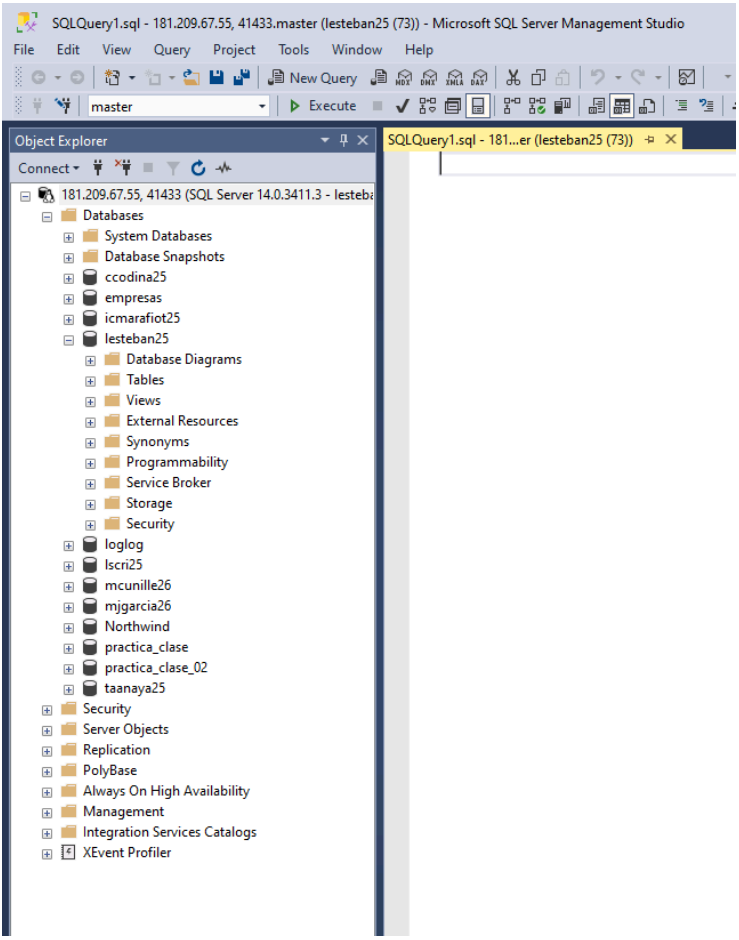
Conexión al servidor

- IP: 181.209.67.55
- puerto: 41433
- user: lesteban25

SQLSERVER cema: Acceso a Base de Datos Personalizada
IP: 181.209.67.55: 41433
DataBase: <usuario campus>
Usr: <usuario campus>
Passw: passw123



DB



Práctica SQL Server

```
USE lesteban25

/* Variables globales con "@@"*/
SELECT @@SERVERNAME; -- sql1
SELECT @@VERSION; -- Microsoft SQL Server 2017 (RTM-CU26) (KB5005226) - 14.0.3411.3 (X64)   Aug 24 2021 09:59:15   Copyright (C) 2017 Microsoft Corporation  Deve

/* Funciones globales */
SELECT DB_NAME(); -- lesteban25
SELECT GETDATE(); -- 2025-07-30 00:03:35.620
```

```
USE lesteban25

/* Variables globales con "@@"*/
SELECT @@SERVERNAME; -- sql1
SELECT @@VERSION; -- Microsoft SQL Server 2017 (RTM-CU26) (KB5005226) -
```

```
14.0.3411.3 (X64)   Aug 24 2021 09:59:15   Copyright (C) 2017 Microsoft
Corporation  Developer Edition (64-bit) on Linux (Ubuntu 16.04.7 LTS)
```

```
select isnull(null,'valor no nulo' )

-- contar caracteres
select len('contar caracteres')

-- nombre del usuario conectado
select sUSER_sNAME()
```

```
-- contar caracteres
select len('contar caracteres')
-- nombre del usuario conectado
select sUSER_sNAME()
```

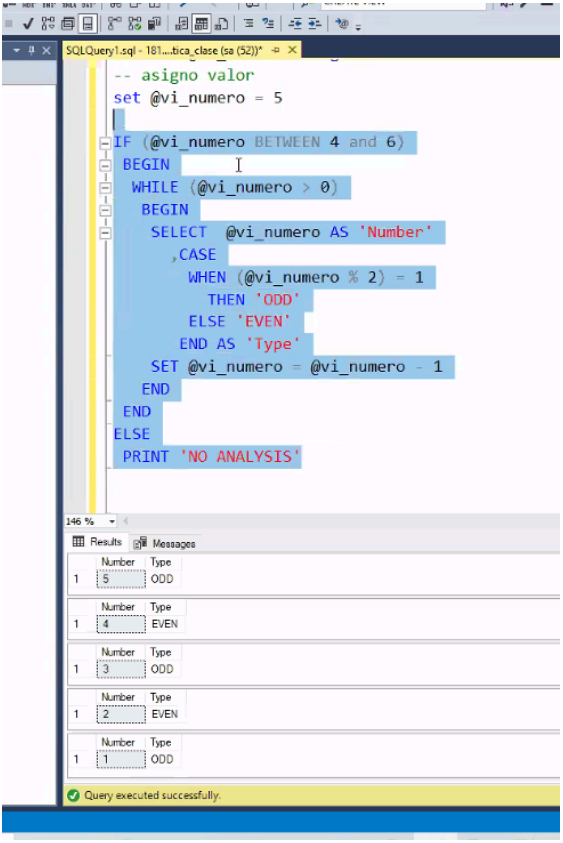
```
-- Declaración de variables
DECLARE @vc_fecha_format varchar(30);
-- Asignación
SELECT @vc_fecha_format = convert(varchar(30), getdate(), 112);
-- Muestra de valor
SELECT @vc_fecha_format as fecha_formateada;
```

128 %

Results | Messages

	fecha_fomateada
1	20250730

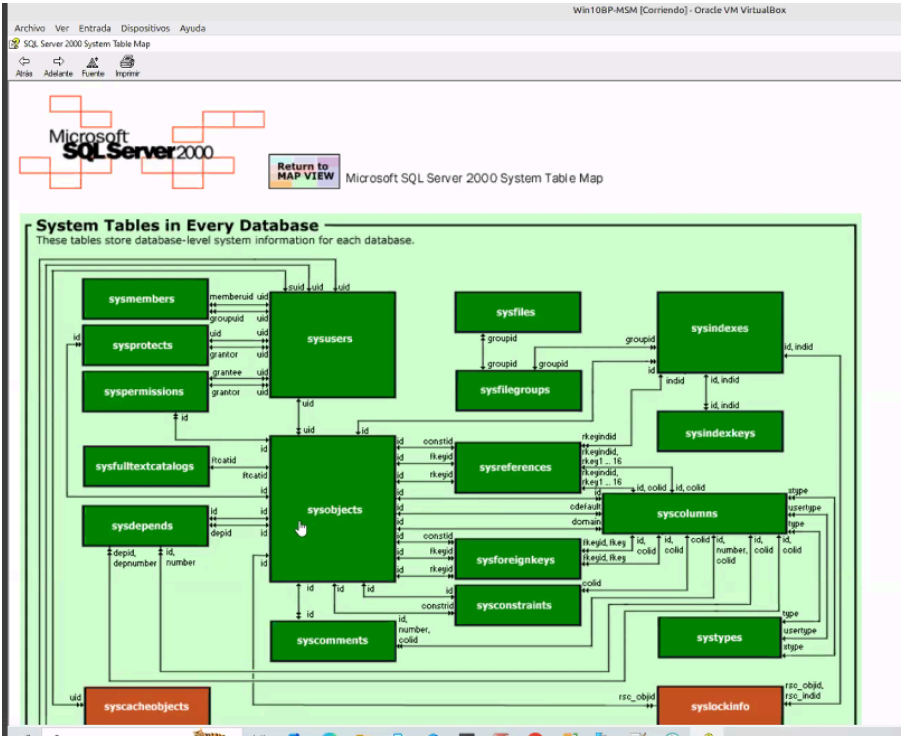
- Ojo, noté que estas variables solo viven durante el tiempo de ejecución



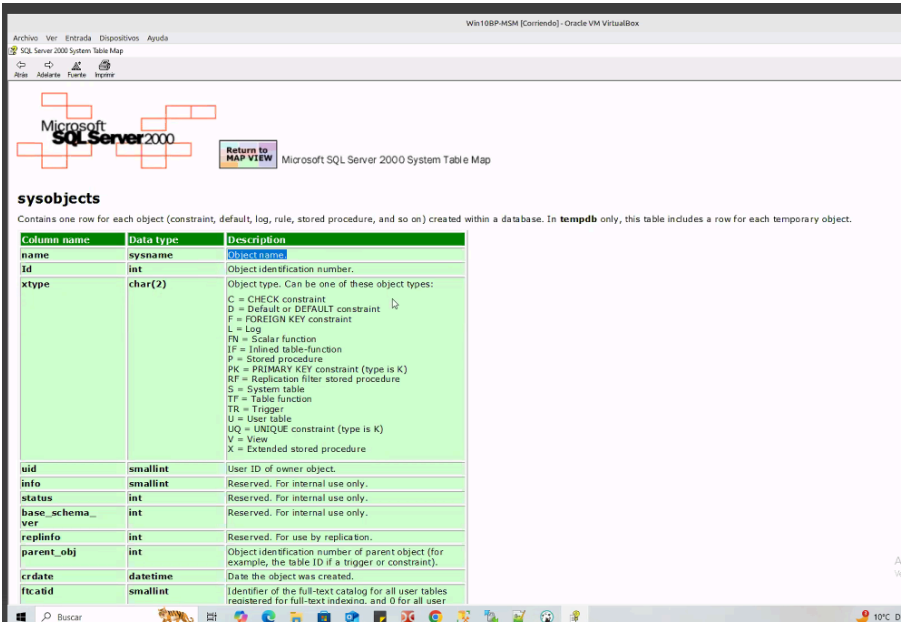

```sql
-- declaro variable
declare @vi_numero integer
-- asigno valor
set @vi_numero = 5
IF (@vi_numero BETWEEN 4 and 6)
 BEGIN
  WHILE (@vi_numero > 0)
   BEGIN
    SELECT  @vi_numero AS 'Number'
      ,CASE
        WHEN (@vi_numero % 2) = 1
          THEN 'ODD'
        ELSE 'EVEN'
       END AS 'Type'
    SET @vi_numero = @vi_numero - 1
   END
 END
ELSE
 PRINT 'NO ANALYSIS'
```

```
-- declaro var
declare @vc_fecha_format varchar(30)
-- asigno valor
select @vc_fecha_format  = convert(varchar(30), dateadd(day,1 ,getdate())  , 112)
--select @vc_fecha_format  = convert(varchar(30), getdate()  , 112)
-- muestro valor
select @vc_fecha_format  as fecha_formateada
```

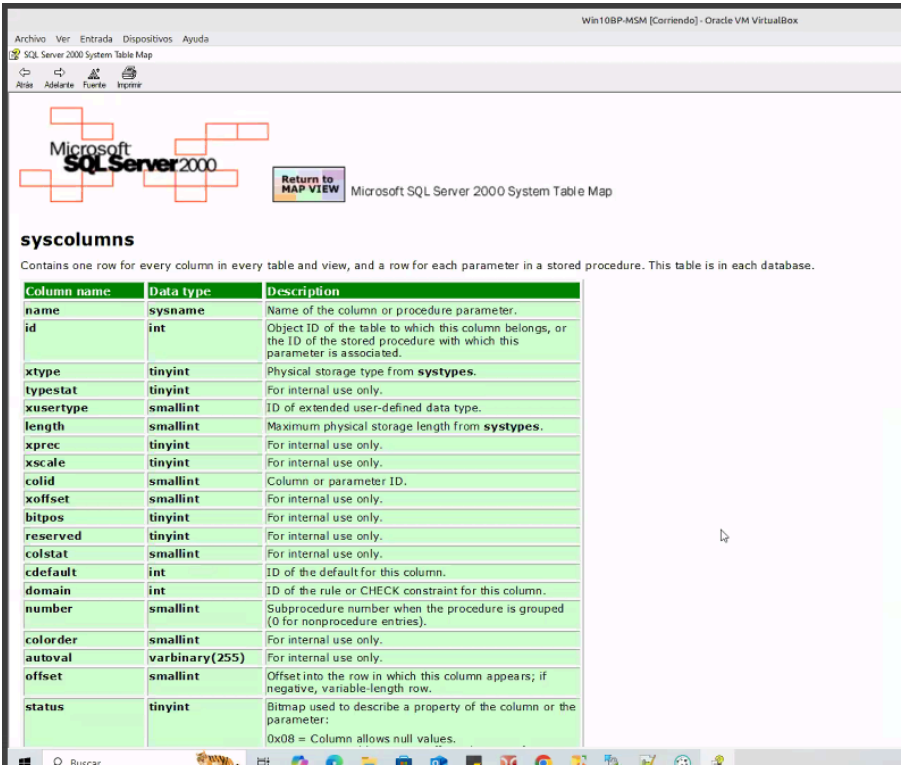
Tablas del sistema



Sysobject


Win10BP-MSM [Corriendo] - Oracle VM VirtualBox
Archivo Ver Entrada Dispositivos Ayuda
SQL Server 2000 System Table Map
Atrás Adelante Fuente Imprimir
Microsoft SQL Server 2000
Return to MAP VIEW
Microsoft SQL Server 2000 System Table Map
sysobjects
Contains one row for each object (constraint, default, log, rule, stored procedure, and so on) created within a database. In tempdb only, this table includes a row for each temporary object.
Column name
Data type
Description
name
sysname
Object name.
Id
int
Object identification number.
xtype
char(2)
Object type. Can be one of these object types:
C = CHECK constraint
D = Default or DEFAULT constraint
F = FOREIGN KEY constraint
L = Log
FN = Scalar function
IF = Inlined table-function
P = Stored procedure
PK = PRIMARY KEY constraint (type is K)
RF = Replication filter stored procedure
S = System table
TF = Table function
TR = Trigger
U = User table
UQ = UNIQUE constraint (type is K)
V = View
X = Extended stored procedure
uid
smallint
User ID of owner object.
info
smallint
Reserved. For internal use only.
status
int
Reserved. For internal use only.
base_schema_ver
int
Reserved. For internal use only.
replinfo
int
Reserved. For use by replication.
parent_obj
int
Object identification number of parent object (for example, the table ID if a trigger or constraint).
crdate
datetime
Date the object was created.
ftcatid
smallint
Identifier of the full-text catalog for all user tables registered for full-text indexing, and 0 for all user
Buscar
10°C

Syscolumns



syscolumns

Contains one row for every column in every table and view, and a row for each parameter in a stored procedure. This table is in each database.

Column name	Data type	Description
name	**sysname**	Name of the column or procedure parameter.
id	**int**	Object ID of the table to which this column belongs, or the ID of the stored procedure with which this parameter is associated.
xtype	**tinyint**	Physical storage type from **systypes**.
typestat	**tinyint**	For internal use only.
xusertype	**smallint**	ID of extended user-defined data type.
length	**smallint**	Maximum physical storage length from **systypes**.
xprec	**tinyint**	For internal use only.
xscale	**tinyint**	For internal use only.
colid	**smallint**	Column or parameter ID.
xoffset	**smallint**	For internal use only.
bitpos	**tinyint**	For internal use only.
reserved	**tinyint**	For internal use only.
colstat	**smallint**	For internal use only.
cdefault	**int**	ID of the default for this column.
domain	**int**	ID of the rule or CHECK constraint for this column.
number	**smallint**	Subprocedure number when the procedure is grouped (0 for nonprocedure entries).
colorder	**smallint**	For internal use only.
autoval	**varbinary(255)**	For internal use only.
offset	**smallint**	Offset into the row in which this column appears; if negative, variable-length row.
status	**tinyint**	Bitmap used to describe a property of the column or the parameter: 0x08 = Column allows null values.

```
create table clase01_categoria(
 clase01_categoria_id int identity(1,1) ,
 descripcion varchar(150)
 )
```

```
create table clase01_categoria(
 clase01_categoria_id int identity(1,1) ,
 descripcion varchar(150)
 )
 select *
 from clase01_categoria
 Select name, crdate
 from sysobjects
 Where  xtype = 'U'
```

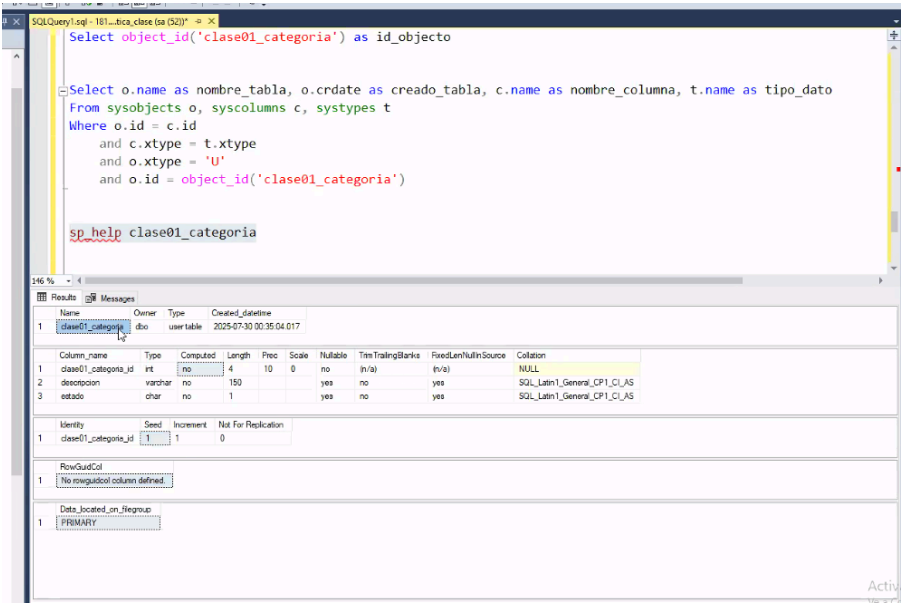
```
-- Método A
Select o.name as nombre_tabla, o.crdate as creado_tabla, c.name as nombre_columna
 From sysobjects o, syscolumns c
 Where o.id = c.id
    and o.xtype = 'U'
    and o.name like '%clase01_categoria%'
-- Método B
```

```
SELECT o.name, c.name
FROM sysobjects o
INNER JOIN syscolumns c ON o.id = c.id
WHERE o.xtype = 'U'and o.name like '%clase01_categoria%'
```

```
Select o.name as nombre_tabla, o.crdate as creado_tabla, c.name as
nombre_columna, t.name as tipo_dato
From sysobjects o, syscolumns c, systypes t
Where o.id = c.id
    and c.xtype = t.xtype
    and o.xtype = 'U'
    and o.name like '%clase01_categoria%';
```

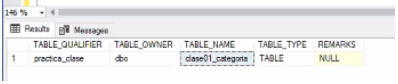
```
Select o.name as nombre_tabla, o.crdate as creado_tabla, c.name as
nombre_columna, t.name as tipo_dato
From sysobjects o, syscolumns c, systypes t
Where o.id = c.id
    and c.xtype = t.xtype
    and o.xtype = 'U'
    and o.id = object_id('clase01_categoria')
```

```
sp_help clase01_categoria
```




```
sp_tables clase01_categoria
```

```
sp_tables clase01_categoria
```

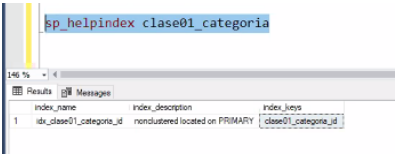


	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	practica_clase	dbo	clase01_categoria	TABLE	NULL

```
select *
 from clase01_categoria
INSERT INTO dbo.clase01_categoria(descripcion,estado)
VALUES('software','A')
INSERT INTO dbo.clase01_categoria(descripcion,estado)
VALUES('hardware','A')
```

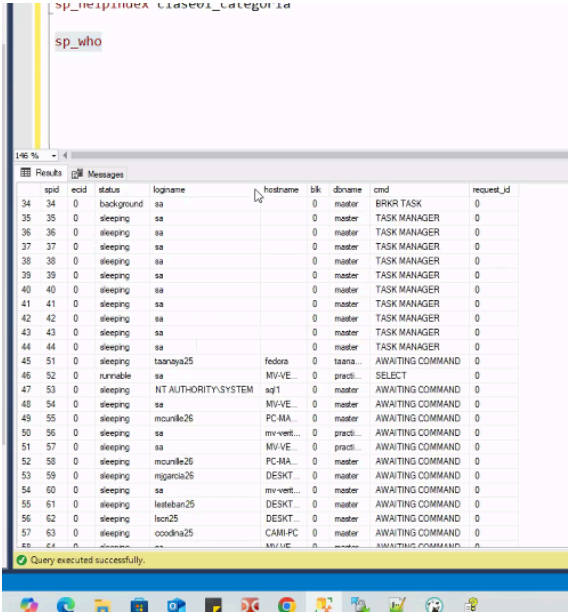
```
create index idx_clase01_categoria_id on clase01_categoria(clase01_categoria_id)
```

```
sp_helpindex clase01_categoria
```



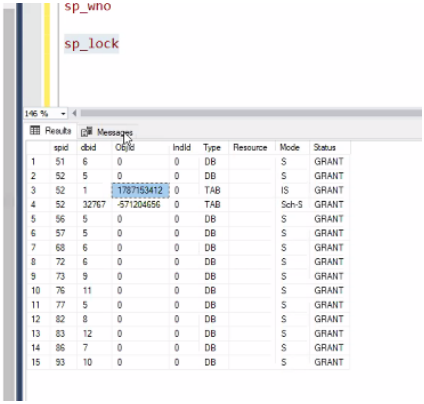
	index_name	index_description	index_keys
1	idx_clase01_categoria_id	nonclustered located on PRIMARY	clase01_categoria_id

```
sp_who -- El dedito acusador
```



	spid	ecid	status	loginame	hostname	blk	dbname	cmd	request_id
34	34	0	background	sa		0	master	BRKR TASK	0
35	35	0	sleeping	sa		0	master	TASK MANAGER	0
36	36	0	sleeping	sa		0	master	TASK MANAGER	0
37	37	0	sleeping	sa		0	master	TASK MANAGER	0
38	38	0	sleeping	sa		0	master	TASK MANAGER	0
39	39	0	sleeping	sa		0	master	TASK MANAGER	0
40	40	0	sleeping	sa		0	master	TASK MANAGER	0
41	41	0	sleeping	sa		0	master	TASK MANAGER	0
42	42	0	sleeping	sa		0	master	TASK MANAGER	0
43	43	0	sleeping	sa		0	master	TASK MANAGER	0
44	44	0	sleeping	sa		0	master	TASK MANAGER	0
45	51	0	sleeping	taanaya25	fedora	0	taana...	AWAITING COMMAND	0
46	52	0	runnable	sa	MV-VE...	0	practi...	SELECT	0
47	53	0	sleeping	NT AUTHORITY\SYSTEM	sql1	0	master	AWAITING COMMAND	0
48	54	0	sleeping	sa	MV-VE...	0	master	AWAITING COMMAND	0
49	55	0	sleeping	mcunille26	PC-MA...	0	master	AWAITING COMMAND	0
50	56	0	sleeping	sa	mv-vent...	0	practi...	AWAITING COMMAND	0
51	57	0	sleeping	sa	MV-VE...	0	practi...	AWAITING COMMAND	0
52	58	0	sleeping	mcunille26	PC-MA...	0	master	AWAITING COMMAND	0
53	59	0	sleeping	mjgarcia26	DESKT...	0	master	AWAITING COMMAND	0
54	60	0	sleeping	sa	mv-vent...	0	master	AWAITING COMMAND	0
55	61	0	sleeping	lesteban25	DESKT...	0	master	AWAITING COMMAND	0
56	62	0	sleeping	lscn25	DESKT...	0	master	AWAITING COMMAND	0
57	63	0	sleeping	ccodina25	CAMI-PC	0	master	AWAITING COMMAND	0

```
sp_lock
```



	spid	dbid	ObjId	IndId	Type	Resource	Mode	Status
1	51	6	0	0	DB		S	GRANT
2	52	5	0	0	DB		S	GRANT
3	52	1	1787163412	0	TAB		IS	GRANT
4	52	32767	-571204656	0	TAB		Sch-S	GRANT
5	56	5	0	0	DB		S	GRANT
6	57	5	0	0	DB		S	GRANT
7	68	6	0	0	DB		S	GRANT
8	72	6	0	0	DB		S	GRANT
9	73	9	0	0	DB		S	GRANT
10	76	11	0	0	DB		S	GRANT
11	77	5	0	0	DB		S	GRANT
12	82	8	0	0	DB		S	GRANT
13	83	12	0	0	DB		S	GRANT
14	86	7	0	0	DB		S	GRANT
15	93	10	0	0	DB		S	GRANT

Archivo adjunto del profe

Consultas.sql

```
/* PASO 1 ------------ Informacion de Server ----------- */
SELECT @@servername /* variable global con nombre del server */

SELECT *
FROM master.dbo.sysservers ... /* Consulta a tabla sysservers */


/* ---------------- sp_helpserver ------------------------------
Presenta informaci@n acerca de un servidor remoto o de
duplicaci@n concreto, o acerca de todos los servidores de los dos tipos.
------------------------------------------------------------------ */
sp_helpserver


/* ---------------------- sp_server_info ... ------------------------------------------------
  Devuelve una lista de nombres de atributos y valores coincidentes para Microsoft@ SQL Server@,
    la puerta de enlace de la base de datos o bien el origen de datos subyacente.
Sintaxis
-------
sp_server_info [[@attribute_id =] 'attribute_id']
------------------------------------------------------------------------------------------ */

sp_server_info


/* PASO 2 ------ Informacion de Base de Datos del Server ------ */

/* -------------------------- sp_helpdb ------------------------------
Presenta informaci@n acerca de una base de datos especificada o de todas las bases de datos.

Sintaxis
sp_helpdb [ [@dbname= ] 'name' ]
------------------------------------------------------------------- */
sp_helptext sp_helpdb
/*****************************************************************************
Descripci@n de Resultados
-------------------------

name ... : Nombre de base de datos.
db_size : Tama@o total de la base de datos.
owner ... : Propietario de la base de datos (como sa).
dbid ... : Id. num@rico de la base de datos.
created : Fecha de creaci@n de la base de datos.
status .. : Lista de valores separados por comas de las opciones actuales de la base de datos.
          Las opciones de valores Booleanos aparecen solamente si est@n habilitadas.
          Las opciones no Booleanas aparecen listadas con los valores correspondientes en la forma option_name=value.



name ......... db_size owner ... dbid ... created .... status
-------------- -------- ------- ------- ----------- ----------------------------------------
master ........ 10.81 MB sa ..... 1 ..... Nov 13 1998 trunc. log on chkpt.
model ......... 1.50 MB .. sa ..... 3 ..... Oct .. 9 2003 SELECT into/bulkcopy, trunc. log on chkpt.
msdb ......... 8.75 MB .. sa ..... 4 ..... Oct .. 9 2003 SELECT into/bulkcopy, trunc. log on chkpt.
tempdb ........ 8.50 MB .. sa ..... 2 ..... Oct .. 9 2003 SELECT into/bulkcopy, trunc. log on chkpt.
Northwind ..... 3.94 MB .. sa ..... 6 ..... Oct .. 9 2003 SELECT into/bulkcopy, trunc. log on chkpt.
pubs ......... 2.05 MB .. sa ..... 5 ..... Oct .. 9 2003 SELECT into/bulkcopy, trunc. log on chkpt.

SELECT into/bulkcopy : Con el valor TRUE, se permiten la instrucci@n SELECT INTO y las copias masivas r@pidas.

*****************************************************************************/
```

```
*****************************************************************************************/


SELECT ID = dbid, Name_DB = name,Fecha = crdate,Dispositivo = filename
FROM master.dbo.sysdatabases


/* PASO 2 -------------Dispositivos--------*/

/*-------------------------sp_helpdevice-----------------------------
sp_helpdevice presenta informaci@n acerca del dispositivo de base de
datos o de descarga especificado. Si no se especifica el argumento name,
sp_helpdevice presenta informaci@n acerca de todos los dispositivos de
base de datos y de descarga de master.dbo.sysdevices.
-------------------------------------------------------------------*/
sp_helpdevice

/*****************************************************************************************
RESULTADOS
device_name   : Nombre del dispositivo (o nombre del archivo).
physical_name : Nombre del archivo f@sico.
description   : Descripci@n del dispositivo
size          : Tama@o del dispositivo en p@ginas de 2 KB.

device_name  physical_name              description                    status  cntrltype size
-----------  -------------------------- ------------------------------ ------- --------- ----
master       C:\MSSQL7\DATA\MASTER.MDF   special, physical disk, 4 MB    2       0         512
mastlog      C:\MSSQL7\DATA\MASTLOG.LDF  special, physical disk, 0.8 MB  2       0         96
modeldev     C:\MSSQL7\DATA\MODEL.MDF    special, physical disk, 0.6 MB  2       0         80
modellog     C:\MSSQL7\DATA\MODELLOG.LDF special, physical disk, 0.8 MB  2       0         96
tempdev      C:\MSSQL7\DATA\TEMPDB.MDF   special, physical disk, 2 MB    2       0         256
templog      C:\MSSQL7\DATA\TEMPLOG.LDF  special, physical disk, 0.5 MB  2       0         64
*****************************************************************************************/

SELECT *
FROM master.dbo.Sysdevices



/* PASO 3 ---- CONSULTA SOBRE TABLAS sysobjects , suscolumns , systype --------*/


SELECT id, name              /* Recupero Datos id, name */
FROM sysobjects o            /* de tabla de usuario     */
WHERE o.name = 'Employees'   /* Employees               */

SELECT id, name, xtype       /* Recupero Datos id, name  de tabla del sistema  */
FROM syscolumns              /* sobre estructura de columnas de tabla Employees */
WHERE id = 117575457         /* utilizando id recuperado de consulta anterior  */

SELECT name                  /* Recupero Datos xtype de tabla del sistema   */
FROM systypes                /* sobre tipo de datos que contiene una columna */
WHERE xtype = 56             /* de la tabla Employees                       */



SELECT  O.name, c.name,t.name,c.prec,c.scale,c.isnullable
FROM    sysobjects o,
        syscolumns c,
        systypes t
WHERE   o.id =  object_id('CustOrdersOrders') AND
        o.id = c.id AND
```

```
SELECT  O.name, c.name,t.name,c.prec,c.scale,c.isnullable
FROM    sysobjects o,
    syscolumns c,
    systypes t
WHERE   o.id = object_id('CustOrdersOrders') AND
    o.id = c.id AND
    c.xtype = t.xtype



SELECT *
FROM systypes
WHERE xtype = 56


/*---------------------------------------------------------------------
Consulta sobre las tres tablas del sistema para recuperar datos de la tabla
del usuario Employees
---------------------------------------------------------------------*/
Select *
from sysobjects
Where


SELECT  O.name, c.name,t.name,c.prec,c.scale,c.isnullable
FROM    sysobjects o,
    syscolumns c,
    systypes t
WHERE   o.name = 'Employees' AND
    o.id = c.id AND
    c.xtype = t.xtype

/* Devuelve la lista de los objetos que se pueden consultar en el entorno actual */
sp_tables Employees        /* Informacion de tabla Employees */

/* Presenta informaci□n acerca de un objeto de la base de datos (cualquier objeto de la tabla sysobjects) */
sp_help Employees          /* Informacion General de Tabla Employees */

/* Devuelve informaci□n acerca de los □ndices de una tabla o vista */
sp_helpindex Employees     /* Informacion sobre indices de Tabla Employees */


/* Muestra el n□mero de filas, el espacio de disco reservado y el espacio de disco que utiliza
una tabla de la base de datos actual o bien muestra el espacio de disco reservado y
el que utiliza la base de datos completa.*/
sp_help sp_spaceused Employees     /* Informacion de Espacio Usado en Tabla Categories */



SELECT *                   /* Informacion que contiene Tabla Categories */
FROM Categories
```

```
/* PASO 4-------- Texto de Procedimientos Almacenados ----------*/
/* Listado de Procedimientos */
SELECT name, crdate, id
FROM sysobjects
Where type = 'U'
Order By name

/* Texto del Procedimiento */
SELECT text
FROM syscomments
Where id = object_id('CustOrdersOrders')



/* ------------------------------sp_helptext-----------------------------------------
Imprime el texto de una regla, un valor predeterminado o un procedimiento almacenado,
funci?n definida por el usuario, desencadenador o vista no cifrados.
-------------------------------------------------------------------------------------*/
sp_helptext CustOrdersOrders

select convert(VARCHAR(256), text) text
from sysobjects s, syscomments t
where s.id = t.id
and s.name = 'CustOrdersOrders'
and s.type = 'P'

/*------------ sp_depends --------------------
Muestra informaci?n acerca de las
dependencias de los objetos de la base de datos

Sintaxis : sp_depends [ @objname = ] 'object'
-----------------------------------------*/
sp_helptext sp_depends
sp_depends CustOrdersOrders
sp_depends Products

/* solo para procedimientos */
    select       'name' = substring((s6.name+ '.' + o1.name), 1, 40),
            type = substring(v2.name, 5, 16),
            updated = substring(u4.name, 1, 7),
            selected = substring(w5.name, 1, 8),
            'column' = col_name(d3.depid, d3.depnumber)
        from     sysobjects     o1
            ,master.dbo.spt_values  v2
            ,sysdepends     d3
            ,master.dbo.spt_values  u4
            ,master.dbo.spt_values  w5 --11667
            ,sysusers       s6
        where    o1.id = d3.depid
        and o1.xtype = substring(v2.name,1,2) and v2.type = 'O9T'
        and u4.type = 'B' and u4.number = d3.resultobj
        and w5.type = 'B' and w5.number = d3.readobj|d3.selall
        and d3.id = object_id('CustOrdersOrders')
        and o1.uid = s6.uid
```

```
/* solo tablas */
/* Dependencias de Objetos */
SELECT distinct 'name' = substring((s.name + '.' + o.name), 1, 40),
    type = substring(v.name, 5, 16)
FROM   sysobjects o, master.dbo.spt_values v, sysdepends d,
    sysusers s
WHERE   o.id = d.id
    AND o.xtype = substring(v.name,1,2) and v.type = 'O9T'
    AND d.depid = object_id('Products')
    AND o.uid = s.uid
ORDER BY type



/* PASO 5 ---------- logines: informacion sobre logines --------------*/

SELECT suid,createdate,name,dbname,language,loginname
FROM master.dbo.Syslogins

SELECT *
FROM master.dbo.Sysusers


SELECT *
FROM    master.dbo.Sysusers u,
    master.dbo.Syslogins l
WHERE u.suid = l.suid


sp_helplogins
/*******************************************************************************
Proporciona informaci□n acerca de inicios de sesi□n y sus usuarios asociados en cada base de datos.

suid  createdate               name     dbname     password   Language   Loginname
------ ------------------------- -------- ---------- ---------- ---------- ---------
1     1998-11-13 02:58:28.780    sa       master     NULL       Espa□ol    sa
6     2003-10-10 01:00:37.663    usuario  Northwind  ???????    Espa□ol    usuario
*******************************************************************************/


/* PASO 5 ------------ Informacion de los mensajes de usuario --------------*/
SELECT *
FROM sysmessages
where error = 108


/* PASO 6 ------------ Informacion de Grupos -----------------*/
sp_helpgroup
sp_helpntgroup
```

```
/* PASO 7 ---------- sp_who ----------
Proporciona informaci□n acerca de los procesos y usuarios actuales de SQLServer.
La informaci□n obtenida puede filtrarse para devolver □nicamente los procesos que no est□n inactivos.
----------*/
sp_who

/*
spid  status          loginame                                                
```