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Practica de particiones

- Creamos la base de datos

```
CREATE DATABASE Kardex

use Kardex
```

- Creamos las particiones en las tablas

```
ALTER DATABASE Kardex
ADD FILEGROUP [K_A]

ALTER DATABASE Kardex
ADD FILEGROUP [K_B]

ALTER DATABASE Kardex
ADD FILEGROUP [K_C]

ALTER DATABASE Kardex
ADD FILEGROUP [K_D]

ALTER DATABASE Kardex
ADD FILEGROUP [K_E]

ALTER DATABASE Kardex
ADD FILEGROUP [K_F]

ALTER DATABASE Kardex
ADD FILEGROUP [K_G]

ALTER DATABASE Kardex
ADD FILEGROUP [K_H]

ALTER DATABASE Kardex
ADD FILEGROUP [K_I]

ALTER DATABASE Kardex
ADD FILEGROUP [K_J]

ALTER DATABASE Kardex
ADD FILEGROUP [K_K]

ALTER DATABASE Kardex
```

```
ADD FILEGROUP [K_L]
```

- Creamos los archivos

```
ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_b,
    FILENAME = 'C:\bk_b.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_B];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_c,
    FILENAME = 'C:\bk_c.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_C];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_d,
    FILENAME = 'C:\bk_d.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_D];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_e,
    FILENAME = 'C:\bk_e.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_E];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_f,
    FILENAME = 'C:\bk_f.ndf',
    SIZE = 5MB,
```

```
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_F];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_g,
    FILENAME = 'C:\bk_g.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_G];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_h,
    FILENAME = 'C:\bk_h.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_H];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_i,
    FILENAME = 'C:\bk_i.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_I];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_j,
    FILENAME = 'C:\bk_j.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_J]

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_k,
    FILENAME = 'C:\bk_k.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
```

```
)
TO FILEGROUP [K_K];

ALTER DATABASE Kardex
ADD FILE
(
    NAME = bk_l,
    FILENAME = 'C:\bk_l.ndf',
    SIZE = 5MB,
    MAXSIZE = 10MB,
    FILEGROWTH = 5MB
)
TO FILEGROUP [K_L];
```

- Creamos la función de partición que asigna las filas de una tabla o un índice a una partición especifica según los valores de una columna especificada.

```
Create Partition Function [KardexPartition](date)
As Range Left For Values
('01-02-2014','01-03-2014','01-04-2014','01-05-2014','01-06-2014','01-07-
2014','01-08-2014','01-09-2014','01-10-2014','01-11-2014') ;
```

- Creamos la tabla a la cual asociamos el esquema de particiones.

```
create table Kardex1
(
      idKardex int not null,
      fecha date,
      Calificacion int,
      constraint pfKardex primary key (idKardex)
)

Create Clustered Index [Indexfecha] On [dbo].[Kardex] (fecha)
on [KardexScheme] (fecha)
```

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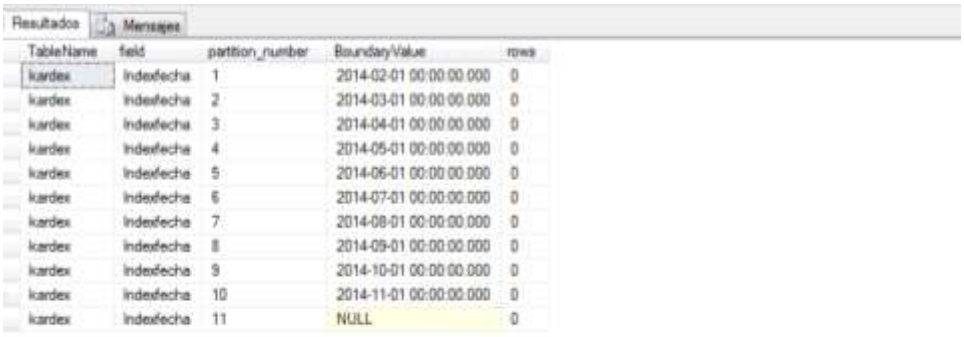
- Consulta para obtener las particiones de la tabla indicada

```
SELECT t.name AS TableName, i.name AS field, p.partition_number, r.value
            AS BoundaryValue , rows
            From Sys.Tables AS t Join Sys.Indexes AS i On
            t.object_id = i.object_id Join sys.partitions AS p On
            i.object_id = p.object_id
       And i.index_id = p.index_id Join sys.partition_schemes
       AS s On i.data_space_id = s.data_space_id Join
       sys.partition_functions
       AS f ON s.function_id = f.function_id Left Join
       sys.partition_range_values AS r On f.function_id = r.function_id
       and
       r.boundary_id = p.partition_number
Where t.name = 'kardex' and i.type <= 1 Order By p.partition_number;
```



Resultados | Mensajes

TableName	field	partition_number	BoundaryValue	rows
kardex	Indexfecha	1	2014-02-01 00:00:00.000	0
kardex	Indexfecha	2	2014-03-01 00:00:00.000	0
kardex	Indexfecha	3	2014-04-01 00:00:00.000	0
kardex	Indexfecha	4	2014-05-01 00:00:00.000	0
kardex	Indexfecha	5	2014-06-01 00:00:00.000	0
kardex	Indexfecha	6	2014-07-01 00:00:00.000	0
kardex	Indexfecha	7	2014-08-01 00:00:00.000	0
kardex	Indexfecha	8	2014-09-01 00:00:00.000	0
kardex	Indexfecha	9	2014-10-01 00:00:00.000	0
kardex	Indexfecha	10	2014-11-01 00:00:00.000	0
kardex	Indexfecha	11	NULL	0

- Ahora veremos toda informacion de las particiones

```
SELECT * FROM sys.partitions AS p
JOIN sys.tables AS t
ON  p.object_id = t.object_id
WHERE p.partition_id IS NOT NULL
AND t.name = 'kardex';
```

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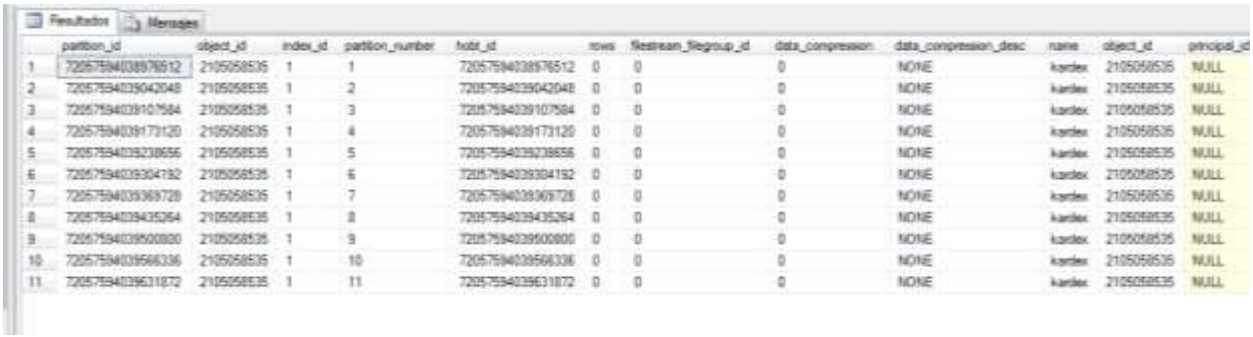

Insertamos valores

```
insert into kardex values ('1','03-02-2014','80');
insert into kardex values ('2','03-03-2014','80');
insert into kardex values ('3','03-04-2014','80');
insert into kardex values ('4','05-06-2014','80');
insert into kardex values ('5','03-07-2014','80');
insert into kardex values ('6','08-05-2014','80');
```

- Revisemos los datos y la partición donde se encuentra cada uno de los registros con la siguiente instrucción

```
select *, $Partition.KardexPartition (fecha) as "Particion"
from kardex
```

Resultados | Mensajes

	idKardex	fecha	Calificacion	Particion
1	1	2014-02-03	80	2
2	2	2014-03-03	80	3
3	3	2014-04-03	80	4
4	6	2014-05-08	80	5
5	4	2014-06-05	80	6
6	5	2014-07-03	80	7