```
CREATE TABLE "RANGO"
  (
   CODIGO NUMBER NOT NULL ,
          DATOS VARCHAR2(100)
    )
 PARTITION BY RANGE (codigo)
 (
    PARTITION P1 VALUES LESS THAN (10),
    PARTITION P2 VALUES LESS THAN (20),
    PARTITION P3 VALUES LESS THAN (30),
    PARTITION P4 VALUES LESS THAN (40)
   );
```

```
Table "RANGO" creado.
```

```
select * from user_tab_partitions where table_name='RANGO';
```

	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITI
1	RANGO	NO	P1	0	10	2	
2	RANGO	NO	P2	0	20	2	
3	RANGO	NO	P3	0	30	2	
4	RANGO	NO	P4	0	40	2	

```
insert into rango values(21,'aaa');
```

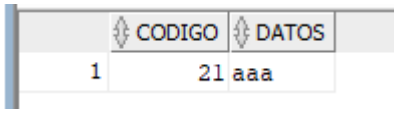
```
1 fila insertadas.
```

```
select * from rango;
```

	CODIGO	DATOS
1	21	aaa

select * from rango partition(p3);

Lo muestra ya que el valor es menor a 30, que es la condición de la partición ‘p3’.



	CODIGO	DATOS
1	21	aaa

select * from rango partition(p1);

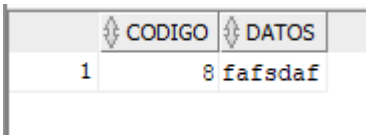
No lo muestra debido a que no esta en la partición p1.

	CODIGO	DATOS

insert into rango values(8,'fafsdaf');

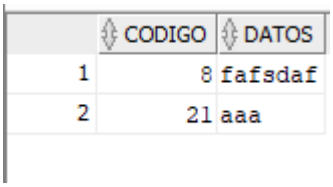
select * from rango partition(p1);

El dato insertado si cumple con la condición.



	CODIGO	DATOS
1	8	fafsdaf

select * from rango;



	CODIGO	DATOS
1	8	fafsdaf
2	21	aaa

Si se llama sin especificar partición, sigue funcionando como de costumbre.

alter table rango

add partition p5 values less than (50);

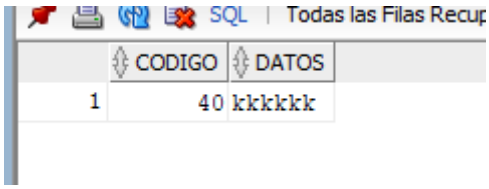
select * from user_tab_partitions where table_name='RANGO';

	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_PO
1	RANGO	NO	P1	0	10	2	
2	RANGO	NO	P2	0	20	2	
3	RANGO	NO	P3	0	30	2	
4	RANGO	NO	P4	0	40	2	
5	RANGO	NO	P5	0	50	2	

Se agrega una nueva partición.

insert into rango values (40,'kkkkkk');

select * from rango partition(p5);

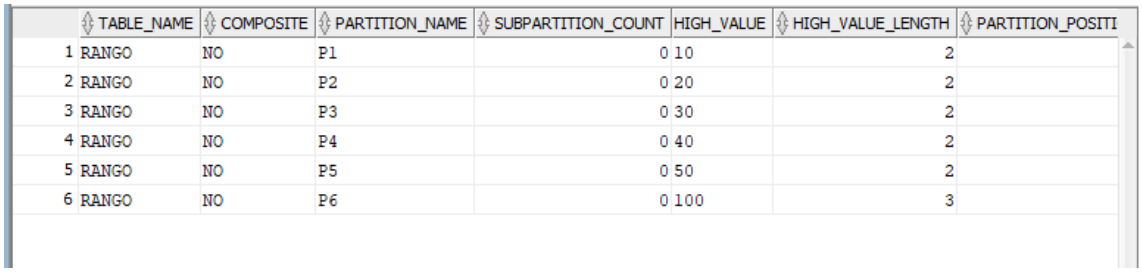


	CODIGO	DATOS
1	40	kkkkkk

alter table rango

add partition p6 values less than (100);

select * from user_tab_partitions where table_name='RANGO';



	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITI
1	RANGO	NO	P1	0	10	2	
2	RANGO	NO	P2	0	20	2	
3	RANGO	NO	P3	0	30	2	
4	RANGO	NO	P4	0	40	2	
5	RANGO	NO	P5	0	50	2	
6	RANGO	NO	P6	0	100	3	

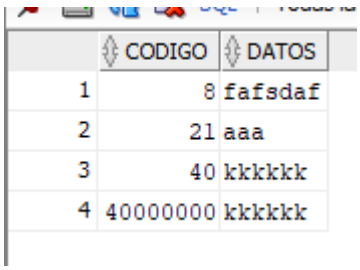
alter table rango

add partition p7 values less than (MAXVALUE);

select * from user_tab_partitions where table_name='RANGO';

	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE
1	RANGO	NO	P1	0	10
2	RANGO	NO	P2	0	20
3	RANGO	NO	P3	0	30
4	RANGO	NO	P4	0	40
5	RANGO	NO	P5	0	50
6	RANGO	NO	P6	0	100
7	RANGO	NO	P7	0	MAXVALUE

insert into rango values (40000000,'kkkkkk');



	CODIGO	DATOS
1	8	fafsdaf
2	21	aaa
3	40	kkkkkk
4	40000000	kkkkkk

Esta fila anteriormente no se pudo haber insertado ya que no había una particion que tomara valores mas allá de 99.

update rango set codigo=22 WHERE codigo=21;

update rango set codigo=7 WHERE codigo=22;

```
Error que empieza en la línea: 59 del comando :
        update rango set codigo=7 WHERE codigo=22
Informe de error -
ORA-14402: la actualización de la columna de claves de partición provocaría un cambio de partición
```

el ultimo update no puede hacerse porque significaría que la fila saltaría de particion, función que por defecto no esta activada ya que dismunye la optimización de las particiones.

alter table rango enable row movement; /*al hacer este alter, se activin los saltos de particion*/

update rango set codigo=7 WHERE codigo=22;

```
1 fila actualizadas.
```

alter table rango merge partitions p3,p4 into partition p3_4;

select * from user_tab_partitions where table_name='RANGO';

	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH
1	RANGO	NO	P1	0	10	2
2	RANGO	NO	P2	0	20	2
3	RANGO	NO	P3_4	0	40	2
4	RANGO	NO	P5	0	50	2
5	RANGO	NO	P6	0	100	3
6	RANGO	NO	P7	0	MAXVALUE	8

Se fusionan las particiones.

/**particiones por lista de valores****/**

```
CREATE TABLE RANGO_LISTA
  (
   CODIGO NUMBER NOT NULL ,
         DATOS VARCHAR2(100),
```

```
 FECHA date,
 PAIS VARCHAR2(50)
  )
PARTITION BY RANGE (FECHA)
  SUBPARTITION BY LIST(PAIS)
 (
 PARTITION TRIMESTRE1 VALUES LESS THAN (TO_DATE('01-04-2023','dd-mm-yyyy'))
   (
   SUBPARTITION T1_P1 VALUES('ESPAÑA','FRANCIA','ALEMANIA'),
   SUBPARTITION T1_P2 VALUES('ARGENTINA','CHILE'),
   SUBPARTITION T1_P3 VALUES('USA','CANADA'),
   SUBPARTITION T1_P4 VALUES(DEFAULT)
   ),
 PARTITION TRIMESTRE2 VALUES LESS THAN (TO_DATE('01-07-2023','dd-mm-yyyy'))
   ( SUBPARTITION T2_P1 VALUES('ESPAÑA','FRANCIA','ALEMANIA'),
   SUBPARTITION T2_P2 VALUES('ARGENTINA','CHILE'),
   SUBPARTITION T2_P3 VALUES('USA','CANADA'),
   SUBPARTITION T2_P4 VALUES(DEFAULT)
 ),
 PARTITION TRIMESTRE3 VALUES LESS THAN (TO_DATE('01-10-2023','dd-mm-yyyy'))
     ( SUBPARTITION T3_P1 VALUES('ESPAÑA','FRANCIA','ALEMANIA'),
   SUBPARTITION T3_P2 VALUES('ARGENTINA','CHILE'),
   SUBPARTITION T3_P3 VALUES('USA','CANADA'),
   SUBPARTITION T3_P4 VALUES(DEFAULT)
 ),
 PARTITION TRIMESTRE4 VALUES LESS THAN (TO_DATE('01-01-2024','dd-mm-yyyy'))
     ( SUBPARTITION T4_P1 VALUES('ESPAÑA','FRANCIA','ALEMANIA'),
   SUBPARTITION T4_P2 VALUES('ARGENTINA','CHILE'),
   SUBPARTITION T4_P3 VALUES('USA','CANADA'),
   SUBPARTITION T4_P4 VALUES(DEFAULT)
 )
```

);

select * from user_tab_subpartitions where table_name='RANGO_LISTA';

	TABLE_NAME	PARTITION_NAME	SUBPARTITION_NAME	HIGH_VALUE	HIGH_VALUE_LENGTH	P
1	RANGO_LISTA	TRIMESTRE1	T1_P3	'USA', 'CANADA'	15	
2	RANGO_LISTA	TRIMESTRE1	T1_P2	'ARGENTINA', 'CHILE'	20	
3	RANGO_LISTA	TRIMESTRE1	T1_P1	'ESPAÑA', 'FRANCIA', 'ALEMANIA'	32	
4	RANGO_LISTA	TRIMESTRE1	T1_P4	DEFAULT	7	
5	RANGO_LISTA	TRIMESTRE2	T2_P3	'USA', 'CANADA'	15	
6	RANGO_LISTA	TRIMESTRE2	T2_P2	'ARGENTINA', 'CHILE'	20	
7	RANGO_LISTA	TRIMESTRE2	T2_P1	'ESPAÑA', 'FRANCIA', 'ALEMANIA'	32	
8	RANGO_LISTA	TRIMESTRE2	T2_P4	DEFAULT	7	
9	RANGO_LISTA	TRIMESTRE3	T3_P1	'ESPAÑA', 'FRANCIA', 'ALEMANIA'	32	
10	RANGO_LISTA	TRIMESTRE3	T3_P2	'ARGENTINA', 'CHILE'	20	
11	RANGO_LISTA	TRIMESTRE3	T3_P3	'USA', 'CANADA'	15	
12	RANGO_LISTA	TRIMESTRE3	T3_P4	DEFAULT	7	
13	RANGO_LISTA	TRIMESTRE4	T4_P1	'ESPAÑA', 'FRANCIA', 'ALEMANIA'	32	
14	RANGO_LISTA	TRIMESTRE4	T4_P2	'ARGENTINA', 'CHILE'	20	
15	RANGO_LISTA	TRIMESTRE4	T4_P3	'USA', 'CANADA'	15	
16	RANGO_LISTA	TRIMESTRE4	T4_P4	DEFAULT	7	

INSERT INTO RANGO_LISTA VALUES(1,'AAAA',SYSDATE,'USA');

INSERT INTO RANGO_LISTA VALUES(2,'BBBB',SYSDATE,'CHILE');

	CO...	DATOS	FECHA	PAIS
1	2	BBBB	27/09/23	CHILE
2	1	AAAA	27/09/23	USA

SELECT * FROM RANGO_LISTA SUBPARTITION(T3_P2);

	CODIGO	DATOS	FECHA	PAIS
1	2	BBBB	27/09/23	CHILE

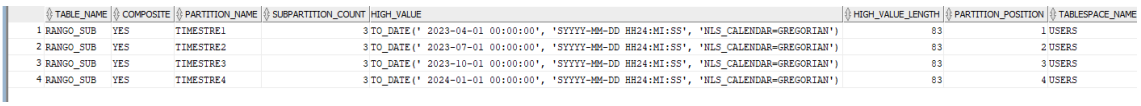
SELECT * FROM RANGO_LISTA SUBPARTITION(T3_P3);

	CODIGO	DATOS	FECHA	PAIS
1	1	AAAA	27/09/23	USA

/***********- hash-rango***********/**

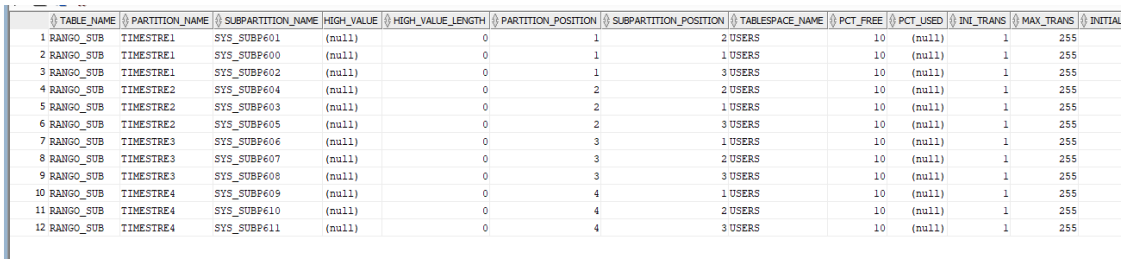
```
CREATE TABLE RANGO_SUB
  (
   CODIGO NUMBER NOT NULL ,
          DATOS VARCHAR2(100),
   FECHA date,
   COD_CLIENTE NUMBER
    )
 PARTITION BY RANGE (FECHA)
    SUBPARTITION BY HASH(COD_CLIENTE) SUBPARTITIONS 3
 (
   PARTITION TIMESTRE1 VALUES LESS THAN (TO_DATE('01-04-2023','dd-mm-yyyy')),
   PARTITION TIMESTRE2 VALUES LESS THAN (TO_DATE('01-07-2023','dd-mm-yyyy')),
   PARTITION TIMESTRE3 VALUES LESS THAN (TO_DATE('01-10-2023','dd-mm-yyyy')),
   PARTITION TIMESTRE4 VALUES LESS THAN (TO_DATE('01-01-2024','dd-mm-yyyy'))
   );
```

select * from user_tab_partitions where table_name='RANGO_SUB';



	TABLE_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITION	TABLESPACE_NAME
1	RANGO_SUB	YES	TIMESTRE1	3	TO_DATE(' 2023-04-01 00:00:00', 'SYYYY-MM-DD HH24:MI:SS', 'NLS_CALENDAR=GREGORIAN')	83	1	USERS
2	RANGO_SUB	YES	TIMESTRE2	3	TO_DATE(' 2023-07-01 00:00:00', 'SYYYY-MM-DD HH24:MI:SS', 'NLS_CALENDAR=GREGORIAN')	83	2	USERS
3	RANGO_SUB	YES	TIMESTRE3	3	TO_DATE(' 2023-10-01 00:00:00', 'SYYYY-MM-DD HH24:MI:SS', 'NLS_CALENDAR=GREGORIAN')	83	3	USERS
4	RANGO_SUB	YES	TIMESTRE4	3	TO_DATE(' 2024-01-01 00:00:00', 'SYYYY-MM-DD HH24:MI:SS', 'NLS_CALENDAR=GREGORIAN')	83	4	USERS

select * from user_tab_subpartitions where table_name='RANGO_SUB';



	TABLE_NAME	PARTITION_NAME	SUBPARTITION_NAME	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITION	SUBPARTITION_POSITION	TABLESPACE_NAME	PCT_FREE	PCT_USED	INI_TRANS	MAX_TRANS	INITIAL
1	RANGO_SUB	TIMESTRE1	SYS_SUBP601	(null)	0	1	2	USERS	10	(null)	1	255	
2	RANGO_SUB	TIMESTRE1	SYS_SUBP600	(null)	0	1	1	USERS	10	(null)	1	255	
3	RANGO_SUB	TIMESTRE1	SYS_SUBP602	(null)	0	1	3	USERS	10	(null)	1	255	
4	RANGO_SUB	TIMESTRE2	SYS_SUBP604	(null)	0	2	2	USERS	10	(null)	1	255	
5	RANGO_SUB	TIMESTRE2	SYS_SUBP603	(null)	0	2	1	USERS	10	(null)	1	255	
6	RANGO_SUB	TIMESTRE2	SYS_SUBP605	(null)	0	2	3	USERS	10	(null)	1	255	
7	RANGO_SUB	TIMESTRE3	SYS_SUBP606	(null)	0	3	1	USERS	10	(null)	1	255	
8	RANGO_SUB	TIMESTRE3	SYS_SUBP607	(null)	0	3	2	USERS	10	(null)	1	255	
9	RANGO_SUB	TIMESTRE3	SYS_SUBP608	(null)	0	3	3	USERS	10	(null)	1	255	
10	RANGO_SUB	TIMESTRE4	SYS_SUBP609	(null)	0	4	1	USERS	10	(null)	1	255	
11	RANGO_SUB	TIMESTRE4	SYS_SUBP610	(null)	0	4	2	USERS	10	(null)	1	255	
12	RANGO_SUB	TIMESTRE4	SYS_SUBP611	(null)	0	4	3	USERS	10	(null)	1	255	

-- Tabla normal e índice particionado

```
drop table t1;

create table t1
(codigo number,
datos varchar2(50));

create index g1_t1 on t1 (codigo) global partition by hash(codigo) partitions 4;

select * from user_ind_partitions where index_name='G1_T1';
```

	INDEX_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITION	STATUS	TABLESPACE_NAME	PCT_FREE	INI_T
1	G1_T1	NO	SYS_P612	0	(null)	0	1	USABLE	USERS	10	
2	G1_T1	NO	SYS_P613	0	(null)	0	2	USABLE	USERS	10	
3	G1_T1	NO	SYS_P614	0	(null)	0	3	USABLE	USERS	10	
4	G1_T1	NO	SYS_P615	0	(null)	0	4	USABLE	USERS	10	

-- Tabla particionada e índice normal

```
drop table t2;
create table t2
(codigo number,
datos varchar2(50))
PARTITION BY RANGE (codigo)
 (
    PARTITION P1 VALUES LESS THAN (10),
    PARTITION P2 VALUES LESS THAN (20),
    PARTITION P3 VALUES LESS THAN (30),
    PARTITION P4 VALUES LESS THAN (40)
   );
   create index t2_i1 on t2(datos);
```

```
Index T2_I1 creado.
```

-- Tabla particionada e índice global particionado

```
drop table t3;
create table t3
(codigo number,
datos varchar2(50))
PARTITION BY RANGE (codigo)
 (
    PARTITION P1 VALUES LESS THAN (10),
    PARTITION P2 VALUES LESS THAN (20),
    PARTITION P3 VALUES LESS THAN (30),
    PARTITION P4 VALUES LESS THAN (40)
   );

   create index g1_t3 on t3 (datos) global partition by hash(datos) partitions 4;
```

```
Table T3 creado.


Index G1_T3 creado.
```

-- indices particionados locales

```
drop table t4;
create table t4
(codigo number,
datos varchar2(50))
PARTITION BY RANGE (codigo)
 (
    PARTITION P1 VALUES LESS THAN (10),
    PARTITION P2 VALUES LESS THAN (20),
    PARTITION P3 VALUES LESS THAN (30),
    PARTITION P4 VALUES LESS THAN (40)
   );
   create index t4_i1 on t4(codigo) local ;
   select * from user_ind_partitions where index_name='T4_I1';
```

	INDEX_NAME	COMPOSITE	PARTITION_NAME	SUBPARTITION_COUNT	HIGH_VALUE	HIGH_VALUE_LENGTH	PARTITION_POSITION	STATUS	TABLESPACE_NAME	PCT_FREE	INI_TRANS	MAX_TRANS
1	T4_I1	NO	P1	0	10	2	1	USABLE	USERS	10	2	255
2	T4_I1	NO	P2	0	20	2	2	USABLE	USERS	10	2	255
3	T4_I1	NO	P3	0	30	2	3	USABLE	USERS	10	2	255
4	T4_I1	NO	P4	0	40	2	4	USABLE	USERS	10	2	255