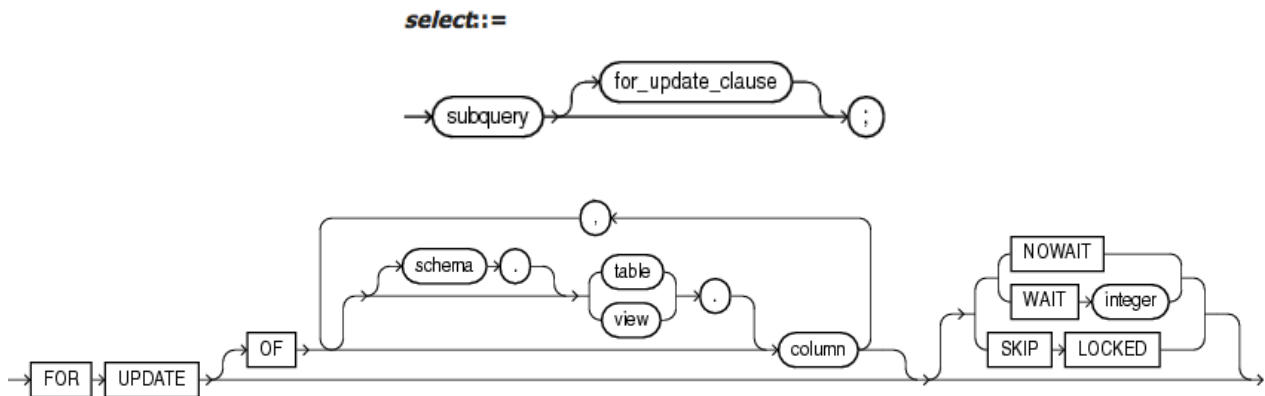


### Ejercicio 1



Use the `OF ... column` clause to lock the select rows only for a particular table or view in a join. The columns in the `OF` clause only indicate which table or view rows are locked. The specific columns that you specify are not significant. However, you must specify an actual column name, not a column alias. If you omit this clause, then the database locks the selected rows from all the tables in the query.

Specify `SKIP LOCKED` to instruct the database to attempt to lock the rows specified by the `WHERE` clause and to skip any rows that are found to be already locked by another transaction.

```
SELECT ... FROM ...  
FOR UPDATE [OF nombre_columna] [NOWAIT]
```

- Bloquea filas antes de una actualización o eliminación.
- La cláusula FOR UPDATE es la última cláusula de una sentencia SELECT, incluso después del ORDER BY.
- NOWAIT devuelve un error de Oracle si las filas han sido bloqueadas por otra sesión.

## Ejercicio 2

**DBA LOCK** lists all locks held in the database, and all outstanding requests for a lock.

Column	Datatype	Description
SESSION_ID	NUMBER	Session holding or acquiring the lock
LOCK_TYPE	VARCHAR2 (26)	Lock type
MODE_HELD	VARCHAR2 (40)	Lock mode
MODE_REQUESTED	VARCHAR2 (40)	Lock mode requested
LOCK_ID1	VARCHAR2 (40)	Type-specific lock identifier, part 1
LOCK_ID2	VARCHAR2 (40)	Type-specific lock identifier, part 2
LAST_CONVERT	NUMBER	The last convert
BLOCKING_OTHERS	VARCHAR2 (40)	Whether the lock is currently blocking others

**Ejercicio 3****Después de 1:**

```
SQL> SELECT SESSION_ID, LOCK_TYPE, MODE_HELD, BLOCKING_OTHERS FROM DBA_LOCK WHERE LOCK_TYPE IN ('Transaction', 'DML');
```

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Row-X (SX)	Not Blocking
132	Transaction	Exclusive	Not Blocking

**Después de 2:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
7	Transaction	None	Not Blocking
132	DML	Row-X (SX)	Not Blocking
7	DML	Row-X (SX)	Not Blocking
132	Transaction	Exclusive	Blocking

**Después de 3:**

ORA-02292: restricción de integridad (SYSTEM.SYS\_C0011055) violada - registro secundario encontrado  
ninguna fila seleccionada

**Después de 4:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
7	DML	Row-X (SX)	Not Blocking
7	Transaction	Exclusive	Not Blocking

**Después de 5:**

ORA-00054: recurso ocupado y obtenido con NOWAIT especificado o timeout vencido

**Después de 6:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Row-X (SX)	Not Blocking
7	DML	Row-X (SX)	Not Blocking
132	Transaction	Exclusive	Not Blocking
7	Transaction	Exclusive	Not Blocking

**Después de 7:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
7	DML	Row-X (SX)	Not Blocking
7	Transaction	Exclusive	Not Blocking

**Después de 8:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	None	Not Blocking
7	DML	Row-X (SX)	Blocking
7	Transaction	Exclusive	Not Blocking

**Después de 9:**

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Exclusive	Not Blocking

## Ejercicio 4

### Después de 2:

```
SQL> SELECT SESSION_ID, LOCK_TYPE, MODE_HELD, BLOCKING_OTHERS FROM DBA_LOCK WHERE LOCK_TYPE IN ('Transaction', 'DML');
```

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Not Blocking
7	DML	Share	Not Blocking

### Después de 3:

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Blocking
7	DML	Share	Blocking

### Después de 4:

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	S/Row-X (SSX)	Not Blocking
132	Transaction	Exclusive	Not Blocking

### Después de 7:

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Not Blocking
7	DML	Exclusive	Not Blocking

### Después de 8:

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Blocking
7	DML	Exclusive	Not Blocking
7	DML	None	Not Blocking

### Después de 9:

ORA-00060: detectado interbloqueo mientras se esperaba un recurso

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Not Blocking
132	DML	None	Not Blocking
7	DML	Exclusive	Blocking

### Después de 10:

SESSION_ID	LOCK_TYPE	MODE_HELD	BLOCKING_OTHERS
132	DML	Share	Not Blocking
132	DML	Exclusive	Not Blocking

Otras formas de consultar los bloqueos:

```
SELECT A.OWNER,A.OBJECT_NAME,B.SID,B.SERIAL#,B.USERNAME,B.STATUS
  FROM DBA_OBJECTS A, V$SESSION B, V$LOCKED_OBJECT C
 WHERE A.OBJECT_ID = C.OBJECT_ID
       AND B.SID      = C.SESSION_ID;
```

```
SELECT * FROM V$LOCK;
```