**Лабораторная работа №4**

**Невейков Андрей, 2022**

**/\*Task\_1\*/**

-- Step 1

CREATE TABLE t2 AS

SELECT TRUNC( rownum / 100 ) id, rpad( rownum,100 ) t\_pad

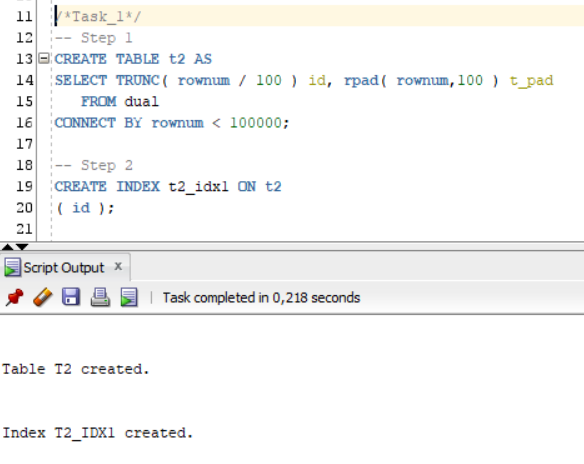
FROM dual

CONNECT BY rownum < 100000;

-- Step 2

CREATE INDEX t2\_idx1 ON t2

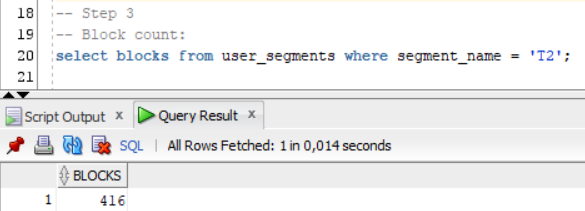
( id );



-- Step 3

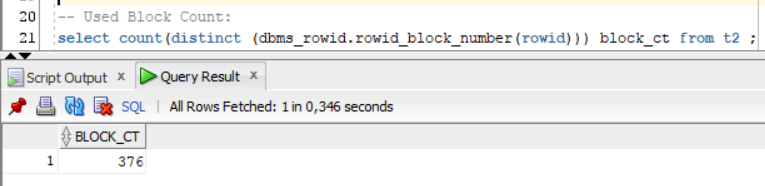
-- Block count:

select blocks from user\_segments where segment\_name = 'T2';



-- Used Block Count:

select count(distinct (dbms\_rowid.rowid\_block\_number(rowid))) block\_ct from t2 ;

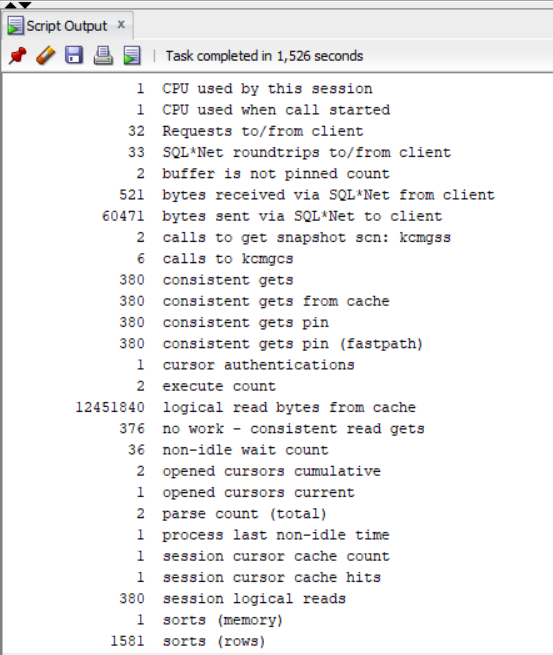


-- Explain Plan:

SET autotrace ON;

SELECT COUNT( \* )

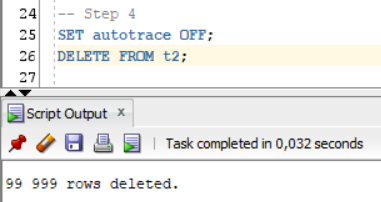
FROM t2 ;



-- Step 4

SET autotrace OFF;

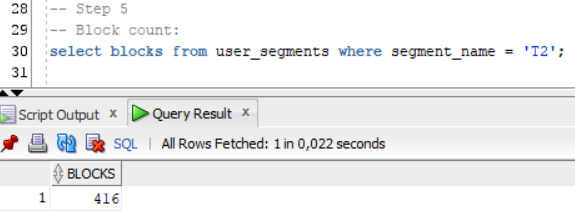
DELETE FROM t2;



-- Step 5

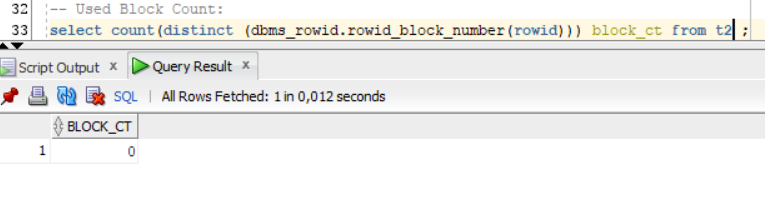
-- Block count:

select blocks from user\_segments where segment\_name = 'T2';



-- Used Block Count:

select count(distinct (dbms\_rowid.rowid\_block\_number(rowid))) block\_ct from t2 ;

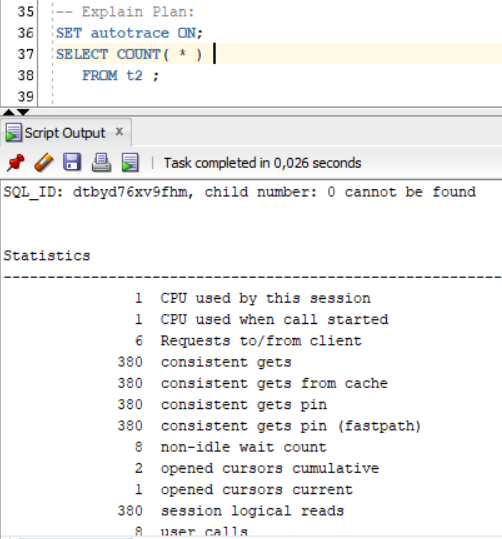


-- Explain Plan:

SET autotrace ON;

SELECT COUNT( \* )

FROM t2 ;



-- Step 6

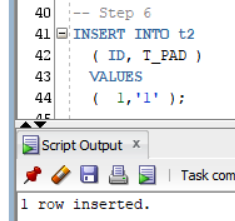
INSERT INTO t2

( ID, T\_PAD )

VALUES

( 1,'1' );

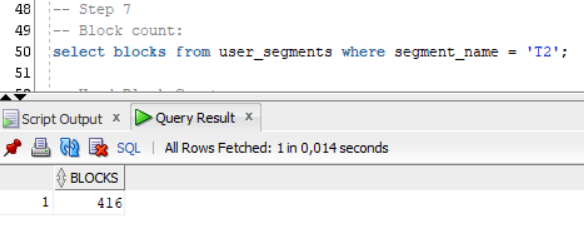
COMMIT;



-- Step 7

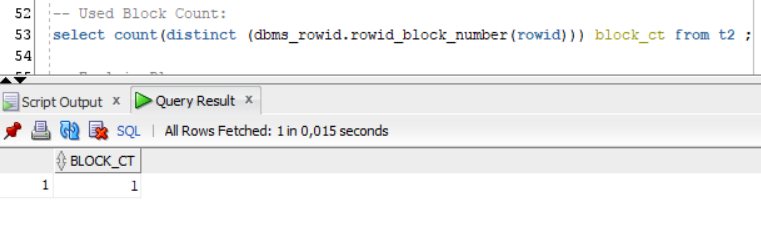
-- Block count:

select blocks from user\_segments where segment\_name = 'T2';



-- Used Block Count:

select count(distinct (dbms\_rowid.rowid\_block\_number(rowid))) block\_ct from t2 ;



-- Explain Plan:

SET autotrace ON;

SELECT COUNT( \* )

FROM t2 ;

-- Step 8

TRUNCATE TABLE t2;

-- Step 9

-- Block count:

select blocks from user\_segments where segment\_name = 'T2';

-- Used Block Count:

select count(distinct (dbms\_rowid.rowid\_block\_number(rowid))) block\_ct from t2 ;

-- Explain Plan:

SET autotrace ON;

SELECT COUNT( \* )

FROM t2 ;

Summary table with all result and text description of analyses this results.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| № | Count of Blocks | Count of Used Blocks | Count of Rows | Consistent gets | Description |
| Step3 | 416 | 376 | 99999 | 380 |  |
| Step5 | 416 | 0 | 0 | 380 |  |
| Step7 | 416 | 1 | 1 | 380 |  |
| Step9 | 6 | 0 | 0 | 1 |  |

**/\*Task\_2\*/**

-- Step 1

CREATE TABLE t2 AS

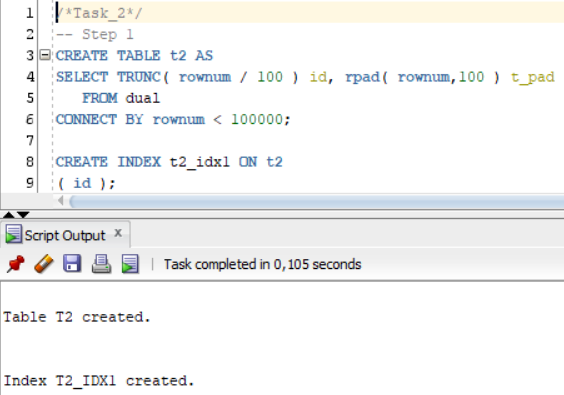
SELECT TRUNC( rownum / 100 ) id, rpad( rownum,100 ) t\_pad

FROM dual

CONNECT BY rownum < 100000;

CREATE INDEX t2\_idx1 ON t2

( id );



-- Step 2

CREATE TABLE t1 AS

SELECT MOD( rownum, 100 ) id, rpad( rownum,100 ) t\_pad

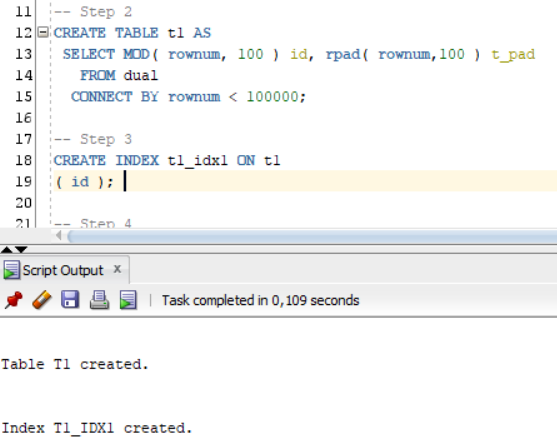
FROM dual

CONNECT BY rownum < 100000;

-- Step 3

CREATE INDEX t1\_idx1 ON t1

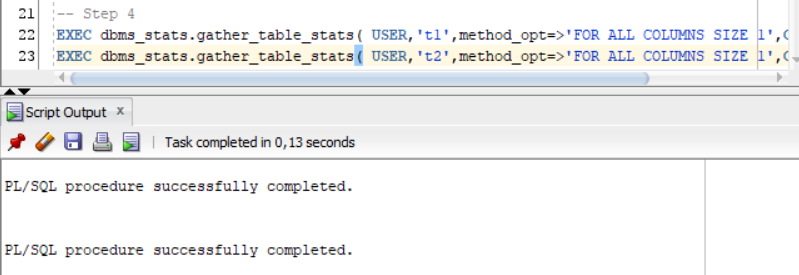
( id );



-- Step 4

EXEC dbms\_stats.gather\_table\_stats( USER,'t1',method\_opt=>'FOR ALL COLUMNS SIZE 1',CASCADE=>TRUE );

EXEC dbms\_stats.gather\_table\_stats( USER,'t2',method\_opt=>'FOR ALL COLUMNS SIZE 1',CASCADE=>TRUE );



-- Step 5

SELECT t.table\_name||'.'||i.index\_name idx\_name,

i.clustering\_factor,

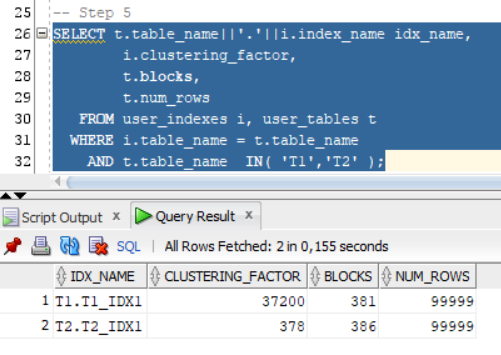
t.blocks,

t.num\_rows

FROM user\_indexes i, user\_tables t

WHERE i.table\_name = t.table\_name

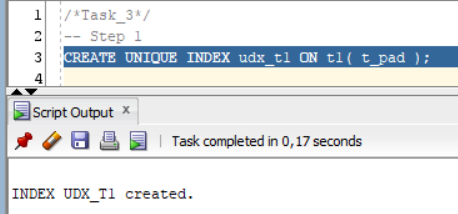
AND t.table\_name IN( 'T1','T2' );



**/\*Task\_3\*/**

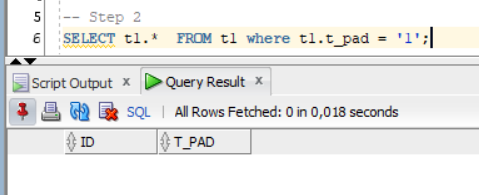
-- Step 1

CREATE UNIQUE INDEX udx\_t1 ON t1( t\_pad );



-- Step 2

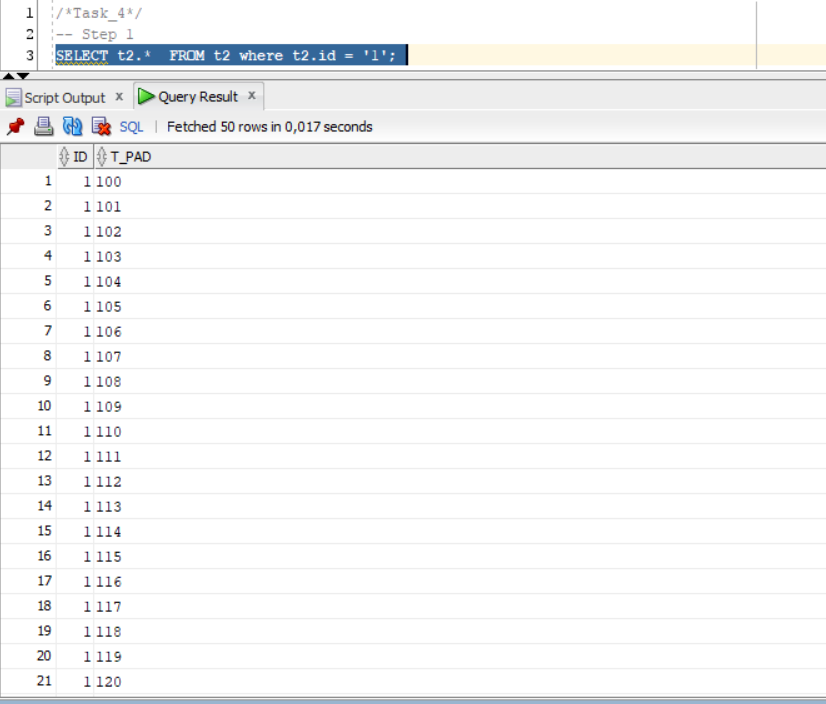
SELECT t1.\* FROM t1 where t1.t\_pad = '1';



**/\*Task\_4\*/**

-- Step 1

SELECT t2.\* FROM t2 where t2.id = '1';



**/\*Task\_5\*/**

-- Step 1

CREATE TABLE employees AS

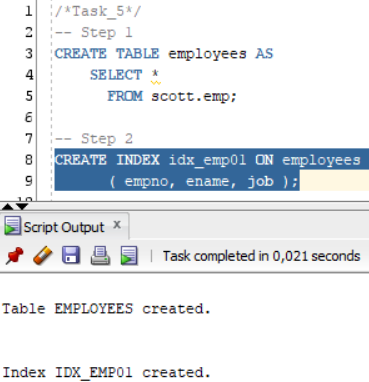
SELECT \*

FROM scott.emp;

-- Step 2

CREATE INDEX idx\_emp01 ON employees

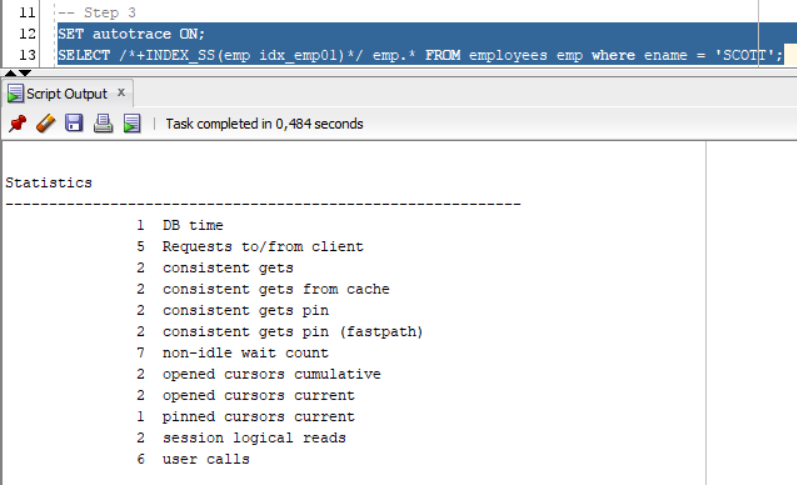
( empno, ename, job );



-- Step 3

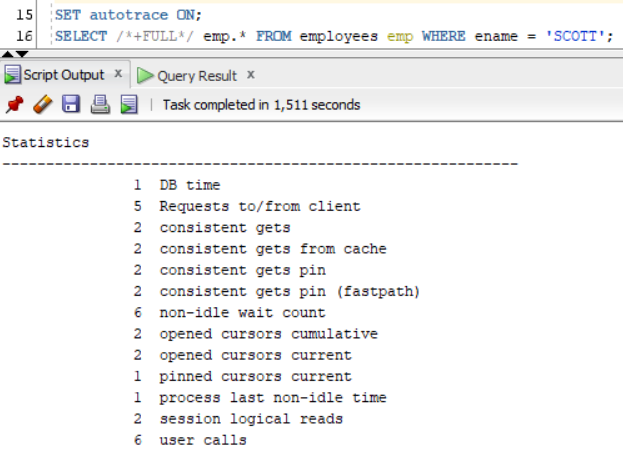
SET autotrace ON;

SELECT /\*+INDEX\_SS(emp idx\_emp01)\*/ emp.\* FROM employees emp where ename = 'SCOTT';



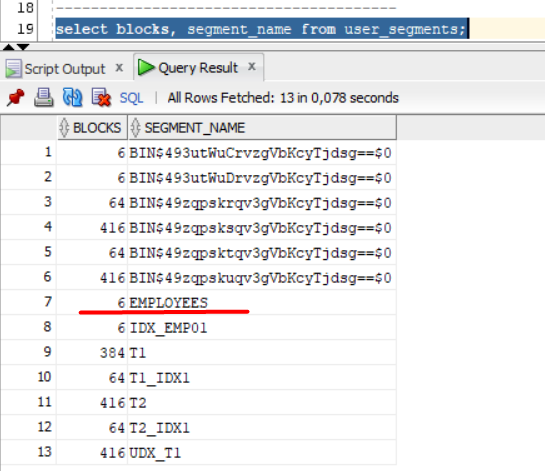
SET autotrace ON;

SELECT /\*+FULL\*/ emp.\* FROM employees emp WHERE ename = 'SCOTT';



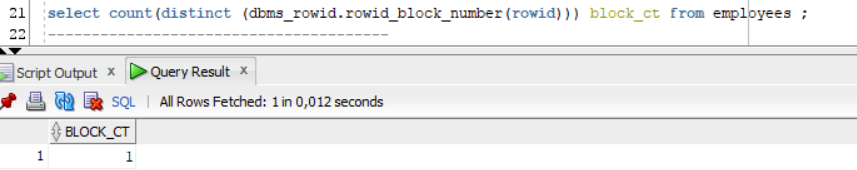
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select blocks, segment\_name from user\_segments;



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select count(distinct (dbms\_rowid.rowid\_block\_number(rowid))) block\_ct from employees ;



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SET autotrace ON;

SELECT COUNT( \* )

FROM employees ;

