# Trabalho 05: Laboratório Banco de Dados I

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## ARQUIVO .ddl

### Questão 1)

```
select rowid, employee_id, first_name, last_name, salary
from employees
where rownum=1;
```

| | ROWID | EMPLOYEE_ID | FIRST_NAME | LAST_NAME | SALARY |
|---|---|---|---|---|---|
| 1 | AAAw6AAAAAAAJqrAAA | 196 | Alana | Walsh | 3100 |

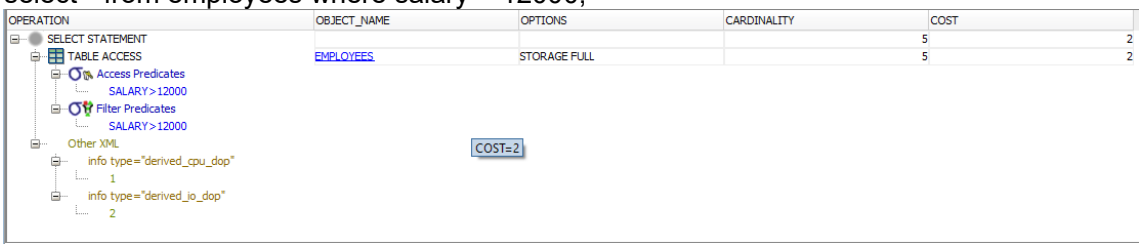
```
select rowid, employee_id, first_name, last_name, salary
from employees
where rowid='AAAw6AAAAAAAJqrAAA';
```

| OBJECT_NAME | OPTIONS | CARDINALITY | COST |
|---|---|---|---|
| | | 1 | 1 |
| EMPLOYEES | BY USER ROWID | 1 | 1 |

--Não é possível ter um plano de execução melhor que este, uma vez que este busca diretamente no endereço fisico da linha, não precisando procurar todas.

### Questão 2)

```
select * from employees where salary > 12000;
```




### Questão 3)

Criando index:

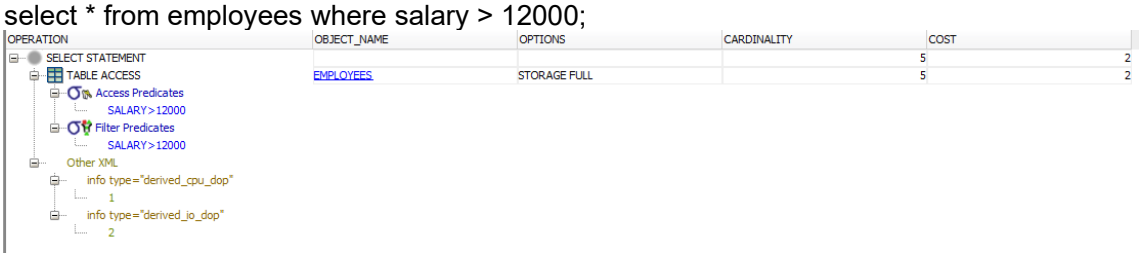
```
create index SALARY_IDX on EMPLOYEES(SALARY);
```

```
Index SALARY_IDX criado.
```

**Questão 4)**

--Refazendo a consulta, agora com index.

```
select * from employees where salary > 12000;
```




--Não houve nenhuma mundaça no plano de execução.

**Questão 5)**

```
analyze table EMPLOYEES compute statistics;
```

--Este codigo cria as estatisticas da tabela employees.

```
analyze table EMPLOYEES compute statistics
for columns SALARY;
```

--Este codigo cria as estatisticas da tabela employees na linha salary.

```
Table EMPLOYEES analisado.


Table EMPLOYEES analisado.
```

**Questão 6)**

```
select TABLE_NAME, NUM_ROWS, EMPTY_BLOCKS, blocks
from   USER_TABLES
where  TABLE_NAME='EMPLOYEES';
```

| | TABLE_NAME | NUM_ROWS | EMPTY_BLOCKS | BLOCKS |
|---|---|---|---|---|
| 1 | EMPLOYEES | 107 | 3 | 5 |

--A tabela tem 107 linhas, 5 blocos com 3 blocos vazios

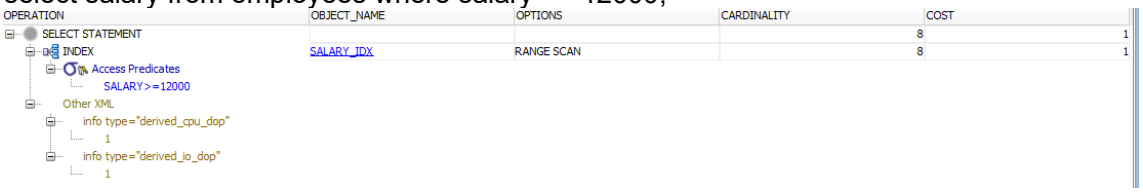
```
select * from USER_HISTOGRAMS
where table_name='EMPLOYEES' and column_name='SALARY';
```

| | TABLE_NAME | COLUMN_NAME | ENDPOINT_NUMBER | ENDPOINT_VALUE | ENDPOINT_ACTUAL_VALUE | ENDPOINT_ACTUAL_VALUE_RAW | ENDPOINT_REPEAT_COUNT | SCOPE |
|---|---|---|---|---|---|---|---|---|
| 1 | EMPLOYEES | SALARY | 1 | 2100 | (null) | (null) | 0 | SHARED |
| 2 | EMPLOYEES | SALARY | 3 | 2200 | (null) | (null) | 0 | SHARED |
| 3 | EMPLOYEES | SALARY | 5 | 2400 | (null) | (null) | 0 | SHARED |
| 4 | EMPLOYEES | SALARY | 11 | 2500 | (null) | (null) | 0 | SHARED |
| 5 | EMPLOYEES | SALARY | 15 | 2600 | (null) | (null) | 0 | SHARED |
| 6 | EMPLOYEES | SALARY | 17 | 2700 | (null) | (null) | 0 | SHARED |
| 7 | EMPLOYEES | SALARY | 21 | 2800 | (null) | (null) | 0 | SHARED |
| 8 | EMPLOYEES | SALARY | 24 | 2900 | (null) | (null) | 0 | SHARED |
| 9 | EMPLOYEES | SALARY | 26 | 3000 | (null) | (null) | 0 | SHARED |
| 10 | EMPLOYEES | SALARY | 30 | 3100 | (null) | (null) | 0 | SHARED |
| 11 | EMPLOYEES | SALARY | 34 | 3200 | (null) | (null) | 0 | SHARED |
| 12 | EMPLOYEES | SALARY | 36 | 3300 | (null) | (null) | 0 | SHARED |
| 13 | EMPLOYEES | SALARY | 37 | 3400 | (null) | (null) | 0 | SHARED |
| 14 | EMPLOYEES | SALARY | 38 | 3500 | (null) | (null) | 0 | SHARED |
| 15 | EMPLOYEES | SALARY | 40 | 3600 | (null) | (null) | 0 | SHARED |
| 16 | EMPLOYEES | SALARY | 41 | 3800 | (null) | (null) | 0 | SHARED |
| 17 | EMPLOYEES | SALARY | 42 | 3900 | (null) | (null) | 0 | SHARED |
| 18 | EMPLOYEES | SALARY | 43 | 4000 | (null) | (null) | 0 | SHARED |
| 19 | EMPLOYEES | SALARY | 44 | 4100 | (null) | (null) | 0 | SHARED |
| 20 | EMPLOYEES | SALARY | 46 | 4200 | (null) | (null) | 0 | SHARED |
| 21 | EMPLOYEES | SALARY | 47 | 4400 | (null) | (null) | 0 | SHARED |
| 22 | EMPLOYEES | SALARY | 49 | 4800 | (null) | (null) | 0 | SHARED |

+

## Questão 7)

select salary from employees where salary >= 12000;




## Questão 8)

analyze table EMPLOYEES delete statistics;

## Questão 9)

select * from employees natural join departments;