



Base de Datos

Laboratorio de Optimización



Para el presente trabajo practico, se solicita:

- a) ejecutar todas consultas sin los índices abajo detallados
- b) estudiar el plan de ejecución de cada query ejecutado
- c) Crear los índices que se consideren necesarios (pueden estar entre los sugeridos o no) y ejecutar los mismos select, comparando los distintos planes de ejecución para todas las posibilidades consideradas
- d) Analizar las diferencias que surjan entre los distintos planes de ejecución para el mismo query
- e) Elegir la mejor combinación consulta-índice

Indices sugeridos

- CREATE NONCLUSTERED INDEX fname ON member(firstname)
- CREATE NONCLUSTERED INDEX corp_no ON member(corp_no)
- CREATE NONCLUSTERED INDEX mem_no ON member(member_no)
- CREATE UNIQUE nonclustered INDEX mbr_mem_no ON member(member_no)
- CREATE clustered INDEX mbr_corp_no_CL ON member(corp_no)
- CREATE UNIQUE nonclustered INDEX mbr_name ON member(lastname, firstname)
- CREATE nonclustered INDEX chg_mem_no ON charge(member_no)
- CREATE nonclustered INDEX mbr_name ON member(member_no, lastname)
- CREATE nonclustered INDEX chg_charge_no ON charge(member_no, charge_no)

Nota : Se utilizara la base de datos Credit., la tabla member contiene 10000 registros

```
1)SELECT *  
FROM member  
WHERE firstname LIKE 'Q%'  
AND corp_no > 450  
AND member_no > 6000
```

```
2)SELECT *  
FROM member  
WHERE firstname LIKE 'Q%'  
AND corp_no > 450  
AND member_no > 9500
```

```
3) SELECT *  
FROM member  
WHERE member_no IN (100,101,102,103,104,105,106,107,108,109,200,201,  
202,203,204,205,206,207,208,209,210,211,212,213,  
214,215,216,217,218,219,220,221,222,223,224,225,  
226,227,228,229,230,231,232)
```

```
4) SELECT *  
FROM member  
WHERE member_no IN (100,101,102,103,104,105,106,107,108,109,200,201,  
202,203,204,205,206,207,208,209,210,211,212,213,  
214,215,216,217,218,219,220,221,222,223,224,225,  
226,227,228,229,230,231,232, 233)
```

```
5)SELECT *  
FROM member  
WHERE member_no=1234 OR region_no=5
```

```
6)SELECT *  
FROM member  
WHERE member_no=1234 OR corp_no=410
```

```
7) SELECT *  
FROM member  
WHERE region_no = 5 OR corp_no = 410
```



```
8)SELECT member.member_no, lastname, charge_no
FROM member
JOIN charge ON member.member_no = charge.member_no
WHERE member.lastname = 'HAHN'
AND firstname = 'CVVD'
```

```
9) SELECT m.member_no, lastname, charge_no
FROM member m JOIN charge c
ON m.member_no = c.member_no
WHERE m.lastname = 'HAHN'
AND firstname = 'CVVD'
```

```
10) SELECT corp_no, count(*)
FROM member
GROUP BY corp_no
```

```
11) SELECT region_no, count(*)
FROM member
GROUP BY region_no
```

```
12)SELECT corp_no, count(*)
FROM member
WHERE member.lastname = 'HAHN'
GROUP BY corp_no
HAVING COUNT(*) > 4
```

```
13)SELECT region_no, corp_no, count(*)
FROM member
GROUP BY region_no, corp_no
```

```
14)SELECT region_no, corp_no, count(*)
FROM member
WHERE member.lastname = 'HAHN'
GROUP BY region_no, corp_no
```

```
15)SELECT corp_no, region_no, count(*)
FROM member
WHERE member.lastname = 'HAHN'
GROUP BY corp_no, region_no
```

```
16)SELECT corp_no, region_no, count(*)
FROM member
WHERE member.lastname = 'HAHN'
GROUP BY corp_no, region_no
HAVING COUNT(*) > 4
```