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