Mariana Pinto e Gonçalo Arieiro

Problema 9.1)

#	Query	Rows	Cost	Pag. Reads	Time(ms)	Index Used	Index Op.
1	select * from Production.WorkOrder	72591	0,488	746	865	WorkOrderID	Cluster Index Scan
2	select * from Production.WorkOrder where WorkOrderID=1234	1	0,003	220	82	WorkOrderID	Cluster Index Seek
3a	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 10000 and 10010	11,9	0,003	220	167	WorkOrderID	Cluster Index Seek
3b	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 1 and 72591	72591	0,488	538	838	WorkOrderID	Cluster Index Seek
4	SELECT * FROM Production.WorkOrder WHERE StartDate = '2007-06-25'	59	0,522	750	212	WorkOrderID	Cluster Index Scan
5	SELECT * FROM Production.WorkOrder WHERE ProductID = 757	11,4	0,037	240	130	ProductID e WorkOrderID	Index Seek Non Cluster
6a	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 757	11,4	0,037	28	187	ProductID e WorkOrderID	Index Seek Non Cluster
6b	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945	1105	0,473	750	138	ProductID	Cluster Index Scan
6c	SELECT WorkOrderID FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1,7	0,473	540	7	ProductID e StartDate	Cluster Index Scan
7	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1,7	0,473	752	8	ProductID e StartDate	Cluster Index Scan
8	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1,7	0,473	540	7	ProductID e StartDate	Cluster Index Scan

Problema 9.2)

a) CREATE CLUSTERED INDEX idxrid on mytemp(rid)

b) Executando:

   "SELECT * FROM sys.dm_db_index_physical_stats (DB_ID(), OBJECT_ID('mytemp'), NULL, NULL, 'DETAILED') as S"

   Tempo de Inserção =

   Avg_frag = 99,1947852760736 (99%)

   Avg_page_space = 68,4583024462565 (68%)

c) Fillfactor 65:

   Avg_frag = 99,2865636147444 (99%)

   Avg_page_space = 69,7558561897702 (69%)

   Fillfactor 80:

   Avg_frag = 98,963133640553 (99%)

Avg_page_space = 67,5852606869286 (68%)

Fillfactor 90:

Avg_frag = 99,2974238875878 (99%)

Avg_page_space = 68,693612552508 (69%)

d)

e) Quando usamos índices o tempo de inserção aumenta, mas por outro lado, o tempo de consulta diminui.

Problema 9.3)

    i.   CREATE UNIQUE CLUSTERED INDEX IdxSSN ON Employee(Ssn);

    ii.   CREATE CLUSTERED INDEX IdxEmployeeName ON Employee(FName, LName);

    iii. CREATE INDEX IdxDnoON Employee(Dno);
CREATE UNIQUE CLUSTERED INDEX IdxDnumberON Department(Dnumber);

    iv. CREATE INDEX IdxPnoON Works_On(Pno);
CREATE UNIQUE CLUSTERED INDEX IdxPnumberON Project(Pnumber);

    v.   CREATECLUSTERED INDEX IdxEssnON Dependent(Essn);

    vi. CREATE CLUSTERED INDEX IdxDnum On Project(Dnum);