

GUIAO 8

8.1)

#	Query	Rows	Cost	Pag.Reads	Time(ms)	Index Used	Index Op.	Discussion
1	SELECT * from Production.WorkOrder	72591	0.484	531	1171	PK	Clustered Index Scan	
2	SELECT * from Production.WorkOrder where WorkOrderID=1234	1	0.00328	286	38	PK	Clustered Index Seek	
3.1	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 10000 and 10010	11	0.0033	286	60	PK	""	
3.2	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 1 and 72591	72591	0.474	816	550	PK	""	
4	SELECT * FROM Production.WorkOrder WHERE StartDate = '2007-06-25'	55	0.5	2001	162	PK	Clustered Index Scan	
5	SELECT * FROM Production.WorkOrder WHERE ProductID = 757	9	0.03	76	60	Pid	Non-Clustered index seek / clustered key lookup	
6.1	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 757	9	0.003	879	48	StartDate	Non-Clustered index seek	
6.2	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945	1105	0.393	834	70	""	Non-Clustered index seek	
6.3	SELECT WorkOrderID FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.393	836	18	""	Non-Clustered index seek	
7	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.003	62	3	Pid2	Non-Clustered index seek	
8	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.003	64	3	Idx2	Non-Clustered index seek	

8.2)

b)

Fragmentacao dos índices: 99.39%

Ocupacao das paginas dos índices: 69.70%

c)

Fillfactor	Tempo de inserção	%fragmentacao	%ocupacao
Alínea c) 65	62260	-	-
Alinea c) 80	69053	-	-
Alinea c) 90	66263	-	-
Alínea d) 65	62913	99%	71.2%
Alinea d) 80	72113	99.20%	66.1%
Alinea d) 90	77260	99.34%	70.3%

e)

R: Podemos concluir que a performance é pior com todos os índices do que sem, pois é necessário também fazer inserção nesses índices.

8.3)

i) CREATE UNIQUE CLUSTERED INDEX index_ssn ON employee(ssn);

ii) CREATE NONCLUSTERED INDEX index_fullname ON employee(Fname,Lname);

iii) CREATE NONCLUSTERED INDEX index_employee_dep ON employee(dno);

iv) CREATE UNIQUE CLUSTERED INDEX index_essn_pno ON works_on(Essn,Pno);

v) CREATE CLUSTERED INDEX dependent ON dependent(Essn);

vi) CREATE INDEX DNum ON project(Dnum);