BD – Guião 9

Problema 1

#	Query	Rows	Cost	Pag. Reads	Time (ms)	Index used	Index Op.
1	select * from Production.WorkOrder	72591	0.473	540	1108	[PK_WorkOrder_WorkOrderID]	Clustered Index Scan
2	select * from Production.WorkOrder where WorkOrderID=1234	1	0.003125	14	55	[PK_WorkOrder_WorkOrderID]	Clustered Index Seek
3.1	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 10000 and 10010	11	0.003125	14	43	[PK_WorkOrder_WorkOrderID]	Clustered Index Seek
3.2	SELECT * FROM Production.WorkOrder WHERE WorkOrderID between 1 and 72591	72519	0.393	542	992	[PK_WorkOrder_WorkOrderID]	Clustered Index Seek
4	SELECT * FROM Production.WorkOrder WHERE StartDate = '2007-06-25'	55	0.393	1682	241	[PK_WorkOrder_WorkOrderID]	Clustered Index Scan
5	SELECT * FROM Production.WorkOrder WHERE ProductID = 757	9	0.00313	32	113	[IX_WorkOrder_ProductID]	Index Seek (NonClustered)
6.1	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 757	9	0.00313	16	43	[IX_ProductID_covered_StartDate]	Index Seek (NonClustered)
6.2	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945	1105	0.00462	20	111	[IX_ProductID_covered_StartDate]	Index Seek (NonClustered)
6.3	SELECT WorkOrderID FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.00462	22	12	[IX_ProductID_covered_StartDate]	Index Seek (NonClustered)
7	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.00313	20	9	[IX_ProductID_StartDate]	Index Seek (NonClustered)
8	SELECT WorkOrderID, StartDate FROM Production.WorkOrder WHERE ProductID = 945 AND StartDate = '2006-01-04'	1	0.00328	167	27	[IX_ProductID_StartDate]	Index Seek (NonClustered)

Para ver com zoom: https://prnt.sc/13j1rhn

Problema 2

a) ALTER TABLE mytemp ADD CONSTRAINT PK_RID PRIMARY KEY CLUSTERED (rid);

b)

-- Resultados:

-- Fragmentação dos indices: 99,27 %

-- Ocupação das páginas: 69,44 %

-- Milliseconds used: 65606

c)

ALTER TABLE mytemp ADD CONSTRAINT PK_RID PRIMARY KEY CLUSTERED (rid) WITH (FILLFACTOR = 65);

-- Resultados:

-- Fragmentação dos indices: 99,27 %

-- Ocupação das páginas: 69,44 %

-- Milliseconds used: 65606

ALTER TABLE mytemp ADD CONSTRAINT PK_RID PRIMARY KEY CLUSTERED (rid) WITH (FILLFACTOR = 80);

-- Resultados:

-- Fragmentação dos indices: 98,93 %

-- Ocupação das páginas: 68,12 %

-- Milliseconds used: 132743

ALTER TABLE mytemp ADD CONSTRAINT PK_RID PRIMARY KEY CLUSTERED (rid) WITH (FILLFACTOR = 90);

-- Resultados:

-- Fragmentação dos indices: 99.01%

-- Ocupação das páginas: 69,88%

-- Milliseconds used: 85021

d)

-- Resultados:

-- Milliseconds used: 125366

e)

-- Resultados:

-- Sem índices -> tempo: 77607

-- Com índices -> tempo: 107265

Problema 3

-- Todos os indices PK_xxx são relativos às chaves primárias e são criados automaticamente pelo sgbd

-- i) Create unique clustered index PK_Ssn on EMPLOYEE(Ssn);

-- ii) Create nonclustered index IX_CompleteName on EMPLOYEE(Fname,Lname);

-- iii)

Create unique clustered index PK_Dnumber on DEPARTMENT(Dnumber);

Create nonclustered index IX_DepNumber on EMPLOYEE(Dno);

-- iv)

Create unique clustered index PK_Ssn on EMPLOYEE(Ssn); -- Criado no i)

Create unique clustered index PK_EssnPno on WORKS_ON(Essn, Pno);

Create nonclustered index PK_Pnumber on PROJECT(Pnumber);

-- v)

Create unique clustered index PK_Ssn on EMPLOYEE(Ssn); -- Criado no i)

Create nonclustered index IX_DependentEssnName on DEPENDENT(Essn, Dependent_name);

-- vi)

Create unique clustered index PK_Dnumber on DEPARTMENT(Dnumber); -- Criado no iii)

Create nonclustered index IX_Dnum on PROJECT(Dnum);