DATE

*** Complete the Wizard.
click [Finish]

*** Creating Subscriptions.
click [Close]

Handling Merge Conflicts.

1. Merge Conflict is a situation where 'publishers' users & 'Subscriber' users updating / inserting the same records with different values.
2. Conflict Resolver will resolve the conflicts based on Subscriber type and Conflict Resolution process (CRP)

Note: Subscribers Type
- Client → Always — [P] wins
- Server → CRp — ?

Q. How to handle Merge Conflicts Manually ?

Open SSMS
Connect to the publisher server (Eg: Peers)
Expand 'Replication'
Expand 'Local publications'
Select 'Merge Publication' Eg: Mergepubdemo.
R/C on 'Mergepubdemo' and
choose 'View Conflicts'
In 'Conflict Resolver' window
Select 'publishers' Rows / 'Subscribers' Rows
click 'winner / Looser'

Praveen.nadupu@gmail.com
98661-30093.
Praveensqldba.blogspot.com

DATE

Q How to Configure Replication Related Alerts to get Notifications ?

↳ open SSMS

↳ Connect to 'Publisher'

↳ Expand 'Replication'

↳ Expand 'Local publications'

R/c on a particular 'Publication' (Eg: Transpubl)

Choose 'Launch Replication Monitor'

Praveen.madupu@gmail.com
98661-30093

⊟ Replication Monitor

⊟ My publishers

⊟ Press

Testdb: Snappubl

Testdb: Transpubl

Testdb: Mergepubl

Select 'Transpubl' publication for Ex,

Now Select 'Warnings and Alerts' tab in 'Replication Monitor' window

Warnings :

Enabled	Warning	Threshold
☐		
☐		

click [Configure Alerts]

In 'Configuration Replication Alerts' window.

Replication Alerts :

Choose the required Alert Message Eg: Replication : Agent Failure

click [Configure]

Now 'Replication : Agent Failure' alert properties — window Comes.

In 'General' page

Name = Replication : Agent Failure ☐ Enable.

Type = [▽]

Event Alert Definition :

Database Name : [▽]

Alerts will be raised on :

✓ ⊙ Error Number : [14151]

○ Severity

☐ Raise alert when Message Contains:

Message Alert : [ ]

click [OK]

DATE

Configuration of Transactional Replication with updatable Subscribers.

* Step1: Setup the Distributor / Configure the Distributor.
  Follow the steps of Snapshot Replication to Configure 'Distributor'

* Step2: Prepare the publisher and publication(s).
  ↳ Open SSMS.
  ↳ Connect to the db Engine Server in which we want to create 'Publication'.
  Eg: Peers
  ↳ Expand 'Replication' Folder
  ↳ R/c on 'Local Publications' and
  choose 'New Publication'
  On 'New Publication wizard' Page
  click [Next]

** 'Publication Database' page
  Databases: ✓ Testdb
  Loddudb
  Advendb.
  Select 'Testdb' database
  click [Next]

** 'Publication Type'
  Select 'Transactional Publication with updatable subscriptions'
  click [Next]

** 'Articles' page
  Objects to publish:
  Select the required articles Eg: Employee
  click [Next] → (A), (B)

(B) ** 'Filter Table Rows' page
  Filter Tables: [Add] [Edit] [Delete]
  Filter: [ ]
  click [Next]

(A) ** 'Articles Issues' page
  Issues: Unique identifier Columns will be added to tables
  Click [Next]

X

Praveen.madupu@gmail.com
98661-30093

DATE

* Step 3 : How to Subscribe to the Publication ? (or)

Prepare the Subscriptions and Subscriber(s).

↳ Open SSMS

↳ Connect to 'Subscriber' Server Eg: Peers/Second.

* ✓ (a) Subscriber must have a linked server to the Publisher (Peers)

Connect to the 'Subscriber' Server Eg: peers/second.

↳ Expand 'Server Objects'

↳ R/c on 'Linked Servers' and

Choose 'New Linked Server'

→ In 'New Linked Server' window

Select 'General' page

Linked Server : Peers

Server Type : ⊙ SQL Server

○ Other data source

→ In 'Security' page

Local Server login to remote login mappings :

Local Login	Impersonate	Remote User	Remote password

Add Remove

For a Login not defined in the list above, Connections will :

✓ ⊙ Be made using the login's current Security Content

Click OK

* ✓ (b) Prepare the Subscription database.

↳ Open SSMS

↳ Connect to the 'Subscriber' Server (Eg: peers/second)

↳ Expand 'Replication'

↳ R/c on 'Local Subscriptions' and

Choose 'New Subscriptions'

on 'New Subscription Wizard' page

click Next

** 'Publication' page

publisher : peers ▽

- Databases & publications :

☐ Testdb

☰ Transupdate $publ ✓

classmate

click Next

PAGE

Praveen.madupu@gmail.com
98661-30093

DATE

** 'updatable Subscriptions' page

Replicate Subscriber changes:

Subscriber: [peers | second] Replicate: [✓] ✓ Commit at Publisher: [Simultaneously Commit changes ▽]

Queue changes & Commit when possible

click [Next]

** 'Login For updatable Subscriptions' page.

When Connecting to the publisher

○ create a linked Server that Connects using Sql Server Authentication;

Login: [ ]

password: [ ] Confirm password: [ ]

✓ ○ use a linked Server or remote Server that you have already defined.

click [Next]

** 'Initialize Subscriptions' page

Subscription properties:

Subscriber: [peers | second] Initialize: [✓] Initialize when: [Immediately ▽]

At first Synchn

click [Next]

Praveen.madupu@gmail.com
98661-30093

** 'wizard Actions' page

☑ create Subscription(s)

☐ Generate a Script file

click [Next]

** 'Complete the wizard' page

click [Finish]

** 'creating Subscriptions' page

Status is shown here Eg: Success / Completed with errors / Failure

click [close]

* ✓ (5) Enable Subscription 'db' for updations.

↳ Sp_link_publication → Execute this on Subscriber(s)

PraveenSqlLabs.blogspot.com

{ Peers — publisher
Peers|third — Distributor
Peers|second — Subscriber }

DATE

Configuration of peer-to-peer Replication

* Step 1: Setup the Distributor / Configure the Distributor Eg: Peers|third
* Step 2: Provides all participants information to the Distributor.
  - ↳ Open SSMS
  - ↳ Connect to the 'Distributor' Server
  - ↳ R/c on 'Replication' and choose 'Distributor Properties'

In 'Distribution Properties' — Peers|third' window

Select 'Publishers' page

click [Add ▽]

↳ Add Sql Server publisher

↳ Add Oracle publisher

choose 'Add Sql Server Publisher'

Connect to Server: [Peers]

click [Connect]

Again click [Add ▽]

Select & choose 'Add Sql Server Publisher'

Connect to Server: [Peers|second]

click [Connect]

publishers:

Publishers : Distribution Database

☑ Peers Distribution

☑ Peers|second This Distribution

click [Add ▽]

Administrative Link password :

password Confirm password

[ ] [ ]

Click [Ok]

Step 3: Maintain initial Copy of database and required articles on every participant

(Using Backup & Restore through T-Sql Script)

Eg: Peers — (publisher)

Database Name = Testdb

Take full Backup & Transaction log Backup and Restore it on all participants with recovery state as 'with Recovery' ← Online.

↳ peers|second.

classmate

PAGE

DATE

Peers and Peer databases :

	Peer Server Instance	Peer Database
☑	Peers\Server2 \second	Branch2
☑	Peers\Server3 \fourth	Branch4

Add Sql Server

click Next

** 'Log Reader Agent Security' page

'Agent Security properties :

Agents for publisher peers Database		Connection to Distributor		Connection to Publisher		
Peers\second	Branch2	Imp. SS.A.S.Acc		Imp. P. Acc		...
Peers\fourth	Branch4	"	"	"	"	...
Peers	TestDb	"	"	"	"	...

click Next

** 'Distribution Agent Security' page

Agent Security properties :

Agent for Subscriber Peer DB		Connection to Distributor		Connection to Subscriber		
Peers\second	Branch2	Imp. proc. acc.		Imp. proc acc.		...
Peers\fourth	Branch4	"	"	"	"	"	"	...

Note : Run under the SQL Server Agent Service Account

click Next

** 'New peer Initialization' page

√ ⊙ I created the peer db manually.

○

Specify the backup file used

Browse

Praveen.madupu@gmail.com
9866-30093.

click Next

** 'Complete the wizard' page.

click finish

** 'Building the peer-to-peer Topology'

click Close

PraveenSqldba.blogspot.com

Prateen. madupu@gmail.com
98661-30093.

DATE

MONITORING PERFORMANCE AND OTHER ACTIVITIES

(Monitoring Database System)

* Performance problems
* Sql Server level Configuration parameters.
* DataBase Tuning
* Query / Stored procedure Tuning
* operating System parameters.

Generally an Administrator will monitor

* Applications (Eg: Logins)
* Network Resources.
* Sql Server
* Databases
* objects
* Hardware Resources (cpu, disk i/o, Ram Utilization)

Monitoring is Required for

① Trouble Shooting at Sql Server level & at db level errors.
② Tracking the users activity / users load.
③ Resolving performance problems and optimizing the performance.
④ Identifying the Connectivity issues / BottleNecks.

Monitoring Tools are :

① Windows Event Log — O/S Level.
② Sql Server Event Log.
③ System Stored procedures
④ Task Manager — O/S Level.
⑤ Activity Monitor —
⑥ performance / System Monitor — O/S Level.
⑦ Sql Server profiler
⑧ DMV's and DMF's (new in Sql Server 2005)
⑨ Dash Board Reports in SSMS

Third party Monitoring Tools are :

① Spot Light
② Fog Light
③ Sql TA (Trace Analyzer)
④ SqL DM (Diagnostic Manager)
⑤ SQL Life

www.quest.com (1,2)
www.idera.com (3,4,5)

DATE

* Sql Browser Service Importance :
* This Service is a Common Service for all instances. (instance Unaware Service).
* This provides all instances information, Connectivity information to the clients.

2. Tracking the Users Activity / users load :
* Every Application will use one or more logins to perform operations with db's in the db server.
* All Operational users of that application will access the db's in the Content of one or more logins.
* For Every operational users one (or more) process (Session) is Created in the db Server whenever a user Connects.
* The Session will be destroyed when the user DISConnects.
* By default, Session memory is 1MB.
* All the sessions are created in 'tempdb' database.

• To track the users load / users Activity :

System Tables
↳ In Master db — Sysprocess ← table
* System Stored procedures
(Sp_who, Sp_who2)
* DMV — Dynamic Management views
↳ Sys.dm_exec_Sessions
* Activity Monitor — GUID — (1–50 → spid — System processes
>50 → Application users related processes

Spid — Server process id
* Every process will have Unique id.
* System processes are from 1–50.
* Users processes are from 51 ie, >51

(Applications) Connected to Sql Server means one or more logins are Connected to Sql Server.

Eg: SqlUser1
SqlUser2,

PreetamSqlDba.blogspot.com
98661–30093

* db – database
* Sp – Stored procedure
* SSMS – Sql Server Management Studio.
* R/c – Right click

DATE

Praneen.madupu@gmail.com
98661-30093.

* **DMV**

Select * From Sys.dm_exec_Sessions

This stored procedure returns same information as 'Sysprocess' SP + reads, writes, logical Reads, etc.,

* {Guid (Mode)} **Activity Monitor** Note: only user processes will be displayed but not System processes.

open SSMS
In object Explorer
↳ Connect to a particular server (Eg: Peers)
↳ Expand 'Management'
↳ R/c on 'Activity Monitor'
↳ Select 'View process'

* To View the Sql statements / SP's submitted by a particular process, we use:– dbcc input buffer(Spid)

* To View the Locks applied by the particular processes, we use
Exec Sp_Lock Spid.

Note: if Spid is not specified then all processes locks will be displayed

3. Resolving Performance problems & optimizing the performance.

Performance of the 'db' System is estimated based on two things:

(a) **Response Time**: Time taken for each transaction.

Performance	Response Time
Low	High
High	Low

(b) **Throughput**: Number of transactions executed by 'db' System for a Period of time (1 min).

Performance	Throughput
High	High
Low	Low.

Praneen.madupu@gmail.com
98661-30093.

DATE

'Performance' window is displayed.

New Report

Add

Console Root

System Monitor

Performance Logs & Alerts

Color	Scale	Counter	Instance	Parent	Object	Computer
	1.000	Pages/sec	...	....	Memory	\\Peers
	100	Avg disk queue link	_Total	...	physical Disk	\\Peers
	1.000	% processor time	_Total	...	Processor	\\Peers

Click [+] button

In 'Add Counters' window

- ○ Use local computer counters
- ✓ ⊙ Select counters from computer:

[\\Peers ▽]

Performance Object:

[Memory ▽]

- Processor
- 'SqlServer: Buffer Manager
- 'SqlServer: DataBases
- ...

○ All counters

✓ ⊙ Select counters from list

[Add] [Explain]

○ All instances

⊙ Select instances from list.

[Close]

Pradeep Kumar Madupu

Pradeep.madupu@gmail.com

98861-30093

Note: click [▭] button

\\Peers

→ Memory

Committed Bytes .....

Pages/Sec ....

→ Processor SqlServer

% Processor time ....

classmate

PAGE

DATE

Sample data every:

Interval: 15 Units: minutes

* Now Select Log files tab

Log file Type and Name:

Log File Type

Binary file ▽ Configure

✓ Text file (Comma delimited)

✓ End file names with: mmddhh

Start Numbering at: 1

Example: D:\Perf Logs\demoSql Counters_021109.csv (mm = month, dd = date, hh = hours)

Comment:

* Now Select Schedule

Start log:

○ Manually (using the Short Cut Menu Method)

✓ ◎ At [ ] on 2/11/2011 → Format: month/date/year

Stop Log:

○ Manually (using the Short Cut Menu)

○ After [ ] Units: days

○ At 8:48:42 Am on 2/12/2011

○ when the log file is full.

when a log file closes:

☐ Start a new log file

☐ Run this Command

[ ] Browse

Note: Select Required options given above and

Click Apply

click OK

Note: In 'Counter logs' – a 'Counter log' file is created.

Note: To Read performance Objects & Counters (of Sql Server only), we use 1 Dmv.

Select * From Sys.dm_os_performance_Counters.

DATE

I

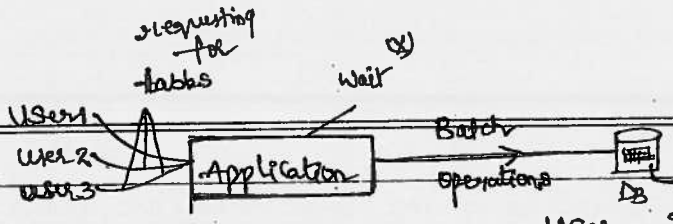
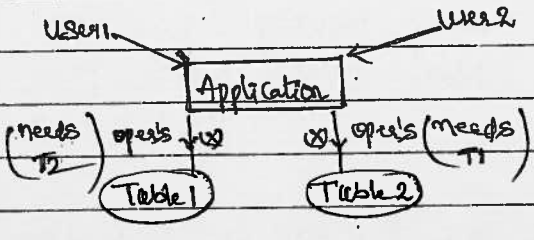
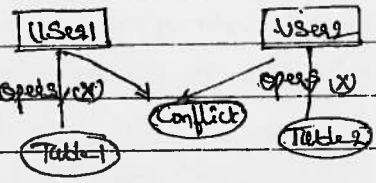


fig Blocking

User Spid / Status Blocked by

II





Eg: Blocking Situation

Connect to a particular Sql Server instance (Eg: Peers)

-- Connection 1: Sql User1

Use Testdb

Go

(X) lock Begin Transaction

Delete from Emp

-- Press F5

-- Connection 2: Sql User1

Use Testdb

Go

Begin Transaction

Select * From Emp

-- Press F5.

* To Trace the Blocking

↳ Connect to Sql Server instance (Eg: Peers) as an Administrator.

View the users processes using the following T-Sql Code:

T-Sql Code

```
Select * From Sysprocesses
Where spid > 50 and blocked <> 0
```

(<> : not equal to)

* To verify the Sql Stmts submitted by the user processes.

Eg: DBCC inputbuffer (spid)

DBCC inputbuffer (51)

* To verify / know the locks applied information by the processes

Eg: Exec Sp_Lock 51.

* To verify the database name

Eg Select db_name(11)

Use Testdb

Select objectname (XXX) — no

Select object_name (XXX) — no

praveen.madupu@gmail.com
98661-30093

db — database

DATE

Database Level Tuning :

To perform db level tuning, we have to consider the following.

(a) Database Space Monitoring & Shrinking database.

(b) Indexes Fragmentation

(c) Statistics Maintenance

(d) Table Level Maintenance → Space growth, indexes, statistics, data partitions.

I (a) DATABASE SPACE MONITORING & SHRINKING DATABASE

* To verify the space used by the database

Syntax:
use dbname
Exec sp_spaceused

* To verify log file space usage of all databases.

Syntax: dbcc SqlPerf(logSpace)

* To verify a particular db files related information.

use dbname
Select * From Sysfiles
-- in the result, verify/check 'Unallocated' Column
-- if this Column value is close to 'zero' then db space is full

dbcc SqlPerf(logSpace)
-- (LogSpaced used) % Column when closes to 100 %
means log file have no free space.

Q. Database has no free space?

Sols ① Shrink the db or datafiles
② Alter database Modify Datafile
③ Alter database Add Datafile.

Shrinking (intermin): The process of returning free space to sql server.
we can shrink the complete db (or) each datafile / log file / file group.

Praveen.madupu@gmail.com
98661-30093

classmate

PAGE

Praveen.madupu@gmail.com
9866-13093.

DATE

Log file is full :-

① Shrink the log file

② Perform Transaction log Backup with 'Truncate_only'.
Backup log dbname
To disk = 'Filepath'
with 'Truncate_only'.

③ Change the db State
* User Access mode = Single
* Recovery Mode = Simple
* Stop and Start the db → log space becomes zero
* Recovery Model to : Full
* User Access mode = Multi-User

④ Alter Database Modify Log file

⑤ Alter Database Add log file

II INDEX FRAGMENTATION :

Index is an Ordered list of values taken from one or more Columns of a table and organized into B-Tree (Balanced) Structure.

Usage : Indexes will improve the performance of 'Select' queries.

Types of Indexes

① clustered Indexes
② Non-clustered Indexes
③ Full-Text Indexes ← 'String' datatype
④ XML indexes (New in Sql Server 2005)

* Index can be created on a single Column of a table / multiple Columns of a table.
* Only one clustered index creation is possible on a table.
* By default, 'clustered index' is created on Primary key Column of a table.
* A table can have 249 non-clustered indexes.
* By default, 'non-clustered index' is created on 'Unique' Constraint Column.
* Clustered & non-clustered indexes can be created on any datatype Column.
* Full Text indexes can be created on only 'String' datatype Column.
Eg: char, varchar, text, nchar, nvarchar, ntext.
* XML indexes can be created on only XML datatype Column.

S – System tables | FN – UDF's
U – User tables | trg – triggers
V – views | K – Key Columns
P – stored procedures | R – Rules
D – default

```
use dbname
Go
Select Object_name(id)
From Sysindexes
```

--To list out all objects in a db

```
use dbname
Go
Select * From Sysobjects
Where type = 'S'  = 'V'  = 'PK'
      = 'U'  = 'P'
      = 'D'  = 'FN'
```

Eg: Use Testdb
Go
Select * From Sysobjects

Assignment:

* List all tables in a db not having atleast one index } Use Sysindexes & Sysobjects tables and apply Join.
* List all tables in a db having atleast one index

Rebuild indexes → insert slows poor performances → drops & re-Create the B-Tree Structure with specified fill factor
(clustered) → Periodically
→ Fill factor — Leaf pages
→ B-Tree is Re-Created
→ Takes more time because dropped & re-Created.
→ Pad-index — fill factor is applied to intermediate pages & leaf pages.

Reorganize Indexes → No fill factor
→ drops the leaf pages only.
→ Non-clustered.
→ ~~drop & re-create~~
→ Rearrange the leaf pages in the B-Tree

-- Syntax: (table Level)
Alter index <indexname / all> → means all indexes of the table.
On Tablename
Reorganize | Rebuild with (fill factor = ?)

-- Eg: Alter index Salindex
On Emp
Rebuild with (fill factor = 75) } for single table.

Fill Factor: Means how full is each leaf-page in the B-structure
Recommended value – (70% to 80%)

Pad_index: Fill factor % is applicable – to all intermediate pages, root pages in the B-Tree also

Query optimizer → Execution plan
↳ Cost of Execution plan
↳ which indexes to be used ✓ - Selected
↳ index Stats — more ✓ — less x - not Selected.

III STATISTICS MAINTENANCE :

* For every index — Statistics is maintained automatically. Column
* 'Statistics' means selecting / selectivity or density of an indexed Column / non c.in -
* Sql Server maintains Statistics for indexed columns automatically.
* We have to create and maintain Statistics for non-indexed Columns — Explicitly (Need to be updated periodically).
* Explicitly we can create 'Statistics' for Combination of 2 or more Columns also.

Query optimizer

* Sql Server Query optimizer is cost based optimizer.
* This will prepare 'Execution plans' for queries & Stored procedures by considering 3 things.
  (a) indexed Columns Statistics
  (b) Non-indexed Column Statistics.
  (c) Cost of the Execution plan (cpu cost, I/O cost)

Note : · default Statistics — single Columns
Combine Statistics — multiple Columns

d-density=high ✓ Explicit Statistics — Need to be updated periodically.
indexed Columns — updated automatically
d-" =low x Non-indexed Columns — we have to create Statistics.

Implicit statistics — for single Columns.
Explicit Statistics — for Combination of Columns.

Note : By default, 'Statistics (name of index name) an indexed Column / (non-index) is

* To view the 'Statistics' of an indexed Column / non-indexed Columns :

Syntax DBCC Show_Statistics (TableName, StatName (or) index name)

Eg: Use Testdb
Go
DBCC Show_Statistics ('Emp', 'Salindex') ← index name of 'Sal' Column

DATE

Practical : How to create a Maintenance plan for shrinking db, indexes - maintenance, statistics Maintenance and Consistency checking for 01 more db's.?

-- creating a Maintenance plan

Solution : Open SSMS — Sql Server management Studio.

In Object Explorer

↳ Connect to a required 'Sql Server instance' (Eg : Peers)

R/C - Right click ↳ Expand "Management"

R/C on 'Maintenance plan' and

Choose 'Maintenance plan wizard'

In 'New Maintenance plan wizard' page

click [Next]

In 'Select a Target Server' Page

Name : [Database Tuning plan]

Description : [All databases Mainten. plan]

Server : [Peers ...] → click here to Connect to a particular server

✓⊙ Use Windows Authentication

○ Use SQL Server Authentication

User Name : [ ]

Password : [ ]

[Help] [Back] [Next] [Finish] [Cancel]

Click [Next]

In 'Select Maintenance Tasks' Page

Select one or more Maintenance Tasks :

- ☑ check database integrity
- ☑ Shrink database
- ☑ Reorganize index
- ☑ Rebuild index
- ☑ update Statistics
- ☑ clean up History
- ☑ Execute Sql Server Agent Job
- ☐ Backup Database (Full)
- ☐ Backup Database (Differential)
- ☐ Backup Database (Transaction Log)

Click [Next]

Praveen.madupu@gmail.com
98661-30093.
Praveensqldba.blogspot.com

DATE

In 'Define Reorganize Index Task' page

Databases : [All databases]

object : [ ]

Selection : [ ]

☑ Compact large objects

click [Next]

In 'Define Rebuild Index Task' page

Databases : [All databases]

object : [ ]

Selection : [ ]

Free Space Options :

⊙ Reorganize pages with the default amount of free space.

√⊙ change free space per page percentage to [25] %.

Advance options :

☑ pad index

☑ Sort results in tempdb

☐ Ignore duplicate keys

☑ Keep index online while reindexing

click [Next]

In 'Define update Statistics Task' page

Databases : [All databases]

object : [ ]

Selection : [ ]

praveen.madeppa@gmail.com
98661-30093.

update :

√⊙ All Existing Statistics.

○ Column Statistics only

○ Indexes Statistics only

click [Next]

In 'Define cleanup History Task' page

Select the historical data to delete :

☑ Backup & Restore History.

☑ Sql Server Agent Job History.

☑ Maintenance plan History.

Remove historical data older than :

[4] [Weeks]

click [Next]

Praveen.madupu@gmail.com
98661-30093.

DATE

In 'Select Report options' page.

Note: Click here to select a path

☑ write a Report to a text file :

Folder location : D:\Program Files\Micro Soft SQL Server\MSSQL.1\MSSQL\LOG\ ...

☑ Email Report

TO TestAdmin ▽

Click Next

In 'Complete the wizard' page

Verify the choices made in the wizard, then click Finish.

Click Finish to perform the following actions:

Click Finish

In 'Maintenance plan wizard progress' page

click Stop to interrupt the operation

Success ← Status 5 Total 0 Error

5 Success 0 Warning

Details :

Action	Status	Message
• Creating Maintenance plan 'DB Mp1'	Success	
• Adding Tasks to the M.p	"	
• Adding Scheduling options	"	
• Adding Reporting options	"	
• Saving M.p — DB mp1	"	

Stop Report ▽

↓ View Report

Save Report to file

Copy Report to clipboard

Send Report as Email.

Finally, click Close

Verification : In object Explorer

Press (SqlServer 9.0.1399 — Press\Administrator)

Expand 'Management

Expand 'Maintenance plans'

Here a new M.p just created 'DBmp1' will appear in the list.

DATE

In 'Trace Properties' window

Select [General] tab. [General] [Events Selection]

Trace Name : [Workload demo1]

Trace provider Name : [Peers]

Trace provider Type : [Micro Soft SQL Server 2005] Version : [9.0.1399]

→ Use the Template : [Tuning] ▽

→ ☑ Save to file : [D:\profiler Files\workload demo1.trc] 🖹

{ In 'Save As' window
File Name : workLoad demo1
Save as type : SQL Server Profiler trace files (*.trc) }

Set Max file Size (MB) : [5] ← default size

☑ Enable file Roll over

☐ Server processes trace data

→ ☐ Save to Table : [ ] 🖹

☐ Set Maximum Rows (in thousands) [ ]

→ ☐ Enable Trace Stop time : [2/11/2011 ▽] [10:58:43 pm ▲▽]

Now, Select 'Events Selection' tab

Check ☑ Show all events.

Events	TextData	Duration	Spid	EBid	DBName	Object type	Login Name
⊟ TSQL							
☑ Sql Batch Completed	☑	☑	☑	☑	☑		☑
☑ Sql Batch Starting	☑		☑	☑	☑		☑
☐ Stored procedures							
☐ Rpc: Completed	☑	☑	☑	☑	☑		☑
☐ Rpc: Starting	☑		☑	☑	☑		☑

Now, click on [Column filters]

In 'Edit filter' window

Database Id

✓ Database Name — click here ↙ ⊞ Like — [Adventureworks]

Duration

Login Name — Click [OK]

Object Type

Spid

TextData

Finally, click [RUN]

classmate

'profiler' will be started and records/captures all queries/sql's

praveen.madupu@gmail.com
98661 – 30093

DATE

DATE

Use the template : [TSQL]

☑ Save to file : D:\ProfilerFiles\Query and SP Monitor.trc

Set maximum file size (MB) : [5]

☑ Enable file rollover

☐ Server processes trace data

☐ Save to table :

☐ Set maximum rows (in thousands)

☐ Enable Trace Stop Time : [2/12/2011] [8:07:38 AM]

→ Now, Select/click [Events Selection] tab

here check ☑ Show all Events

☑ Show all Columns

In 'Events' Column :

- TSQL
  - ☑ Sql:BatchCompleted
  - ☑ Sql: BatchStarting
- Stored procedures
  - ☑ Rpc: Starting
  - ☑ Rpc: Completed
- Performance
  - ☑ Show plan XML
  - ☑ Show plan Text
  - ☑ Show plan xml Statistics profile

↳ when ever we check this, a new tab [Events Extraction Settings] is added to the existing tabs [General] [Events Selection]

Now click on [Events Extraction Settings] tab

XML Showplan

☑ Save XML Showplan Events Separately.

XML Showplan results file :

[D:\XmlFiles\demo queries and sp.sql\plan] [...] ← Click here to save the file in a particular location

✓◉ All XML Showplan batches in a Single file.

○ Each XML Showplan batch in a distinct file.

Deadlock XML

☐ Save Deadlock (Events) XML Events Separately.

Deadlock XML results file :

[ ] [...]

praveen-madupu@gmail.com
9866130093

DATE

Syntax: ① Select * From Table1 (index hint)
with (index = indexname)
where <Condition>

② Select * From Table1 (Tablockx) } Locking hints.
③ Select * From Table1 (NoLock) }

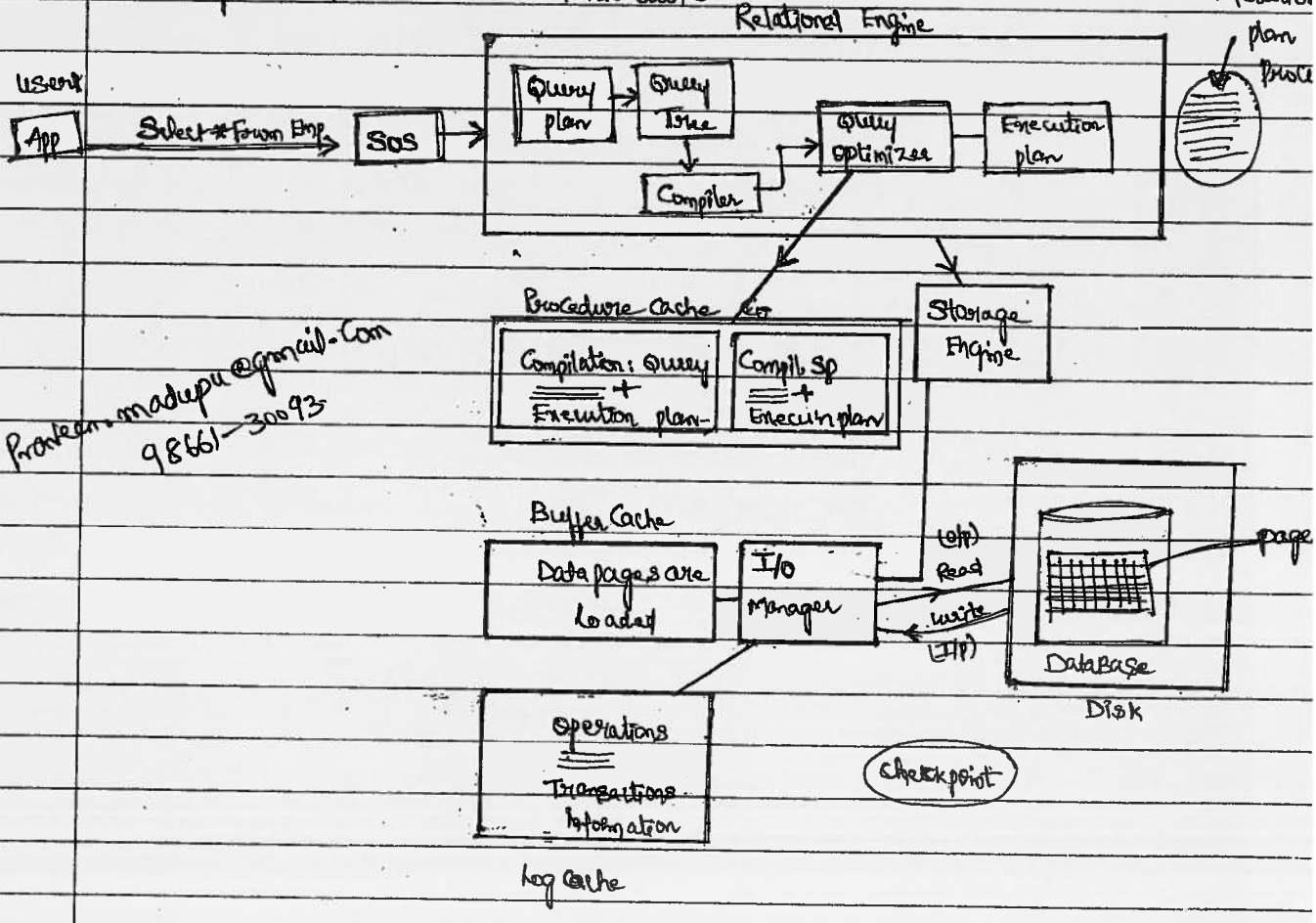
(5) TO optimize: Recompile the Stored Procedure.

Exec Sp_Recompile <Procedure Name>

* Once we Recompile the 'SP', it will remove (SP Compiled Version) + 'Execution plan' from the 'Procedure Cache'.
* This will Recompile the (Procedure) and 'Execution plan' prepared everytime when a user calls the SP.

Note: Generally, 'Recompile' option is recommended for the SP's that are to be Executed occasionally. (Weekly once / Monthly once) for maintenance purpose.

Query and SP Execution Architecture.



Praveen.madupu@gmail.com
9866l-30093