

# What "Connects" Users to SharePoint/Office 365/Azure

## SQL Admin Routines....

"Central Store"

"SaaS-IaaS"

"Hosting"

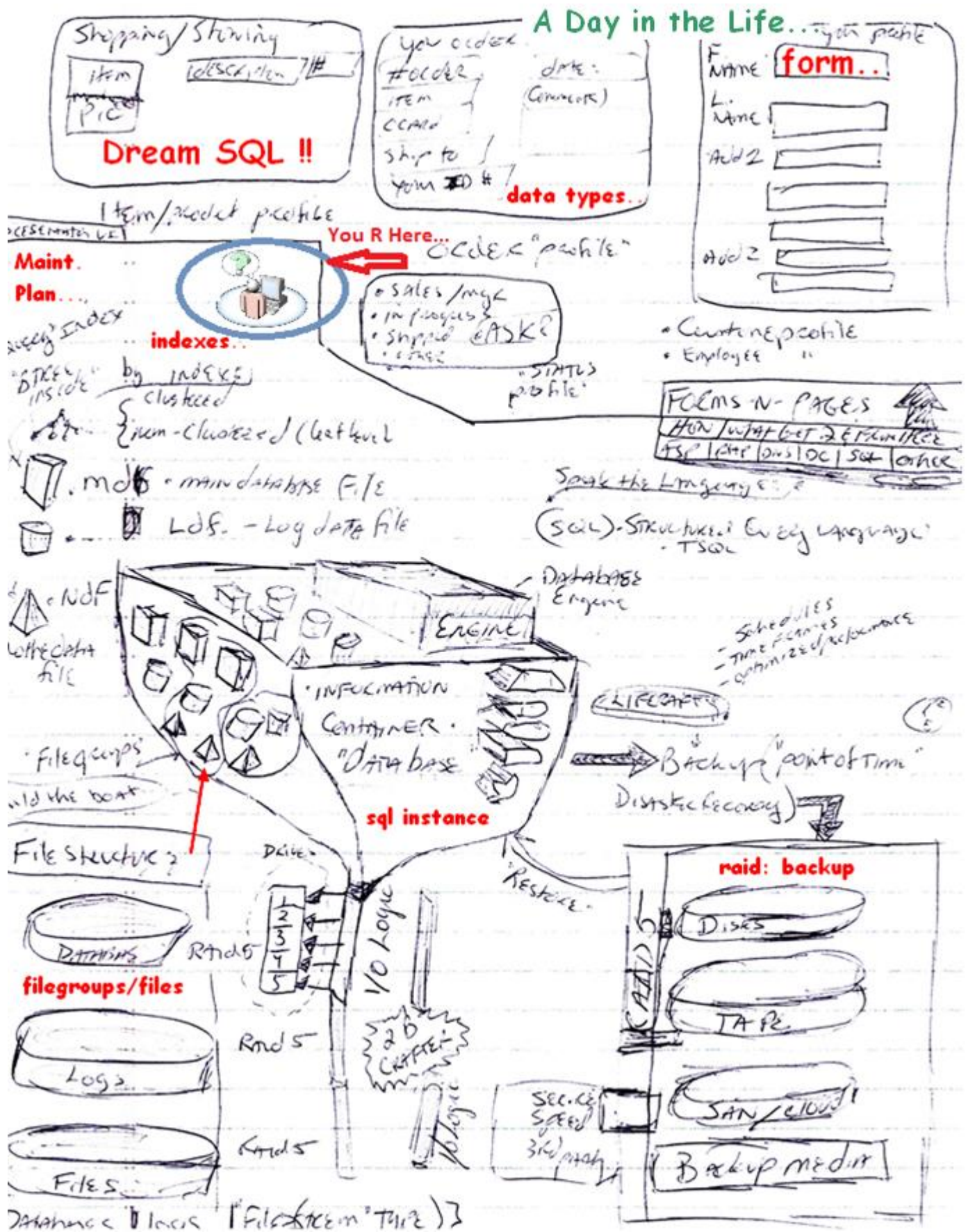


The "Boss"

IT Support



- \* Maintenance Plans
- \* Disaster Recovery
- \* Automating jobs
- \* Monitoring Performance
- \* Notification/Alerts
- \* Error Trapping





# SBS GOOEY LABS INSTRUCTION #1

## MAINT PLAN LAB: AFTER GEN DISCUSSION

### 1) CREATE NEW USER AD

- MAKE SQL login for new user - make as Admin
- Roles → Compare to Adventureworks\Admin
  - ↳ CAN I Add NEW user to Admin Groups in Active directory?

### 283 2) CREATE maint plan

- P286, Integrity, Indexes, BUP

### 293 3) Profile / Extended Events / TRACE (ing) EVENTS 294

- Performance Tuning
- Deadlocks
- Auditing
- Detect Blocking
- Connection
- START/END Times
- Application
- Host Information
- \*\* • T/SQL TEXT

- Filter TRACE (298) Limit data returned
  - ↳ SAVE AS TEMPLATE

### 303 4) EXTENDED EVENTS Setup..

- \*\* MONITOR Activity (P.308) - RUN SELECT & OTHER STATEMENTS...
- VIEW Activity

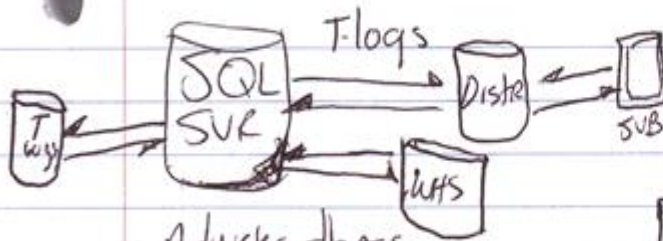
### 5) GOOEY LABS Notify & Jobs (345)

- my SQL AGENT is my FRIEND...
  - ... Schedule, execute JOBS...

GOOEY LABS p.2

-05

## Setting up some Automation &amp; General Events &amp; Jobs



WhoAmI login / proxies

File locations

- Adwks dbase

- possible p.255  
- TASKS: p.345

Add new user &amp; in SQL

Security Add to Admin Rls

USE this login

283 Profile / TRACE &amp; extended Events - monitor queries / errors - 188

T-logs / BUP: RESTORE (264)

Indexes / STATISTICS (271) - Determine fragmentation RE  
(278) - NOT USED (277)

30%  
 ORGANIZE  
 build  
 30% (272)  
 (275)

Query Execution plans (278)

Automatic on index rebuild, DBASE, TABLE, Column

MANUAL ON Index REorganize...  
(notify to person upon REorganize)

VIEW statistics (-279)

When updated require query

Recompile &amp; new plan

Generated by optimizer

All cached plans are emptied

PK	FK	NAME		

Cluster

Index

non clustered

ORDER

By

Column

NAME

SEPARATE  
CONTAINERStores  
Table  
INDEX ORDER

283 Database Consistency Checks / DBCC checkdb



25/ GOOEY LABS p 3

255 - GOOD TASK DIST. - WHAT SOP?

SBS

Daily maintenance "Infrastructure"  
MANTLAB284 283

293/ We 5 | 05 | 13 | - TUES | Discussions |

293 • Profiler / TRACE / CASE vs Extended Events (299) Ch24

• Definition

• DELTAS

• LAB

Showing Query!

188 • EXECUTED | TRY.CATCH - THROW

271 • Query plan optimizer

264 • T-logs | BUP - Point in time LAB (GUI LAB)

• When do T logs truncate?

• LOG READER AGENT

238

255/  
266

• BUP / Restore

(GUI LAB)

- where do I put the files

- How much loss - 257

235 Ch19 Replication

238

- Amount of data

- Frequency of change

- Subscriber location

• Publish (to distributor)

• Subscribe ("")

• Distribute

250

• monitoring Availability / Performance  
SSMS / Replication monitor.

245

354 • Notifications / SQL SUB AGENT - AMI RUNNING PER Instance

• VIEW SERVICES & ACTS IN  
SQL CONFIG MANAGER

35

356 • Jobs: Success / Failure

360 EXECUTE AS Abstraction / PROXIES

\* Create A Report!! (FROM A VIEW / CREATE VIEW FIRST - 191)  
(FROM m. Hale - Inside V192)

## SBS GOOEY LAB'S Instructions....

### Instructions....

Using the Step by Step book by the page number to review the variety of day to day or otherwise "routine" jobs with SQL server...

- Parameterizing User Defined Functions - 204
- Parameterizing Stored Procedure - 220

### Maintenance Plans: Performance Tune, Detecting Deadlocks, Auditing, Detecting Blocking

1. Create Maintenance Plan: p283 – Backups, Retention, Indexes, Statistics
  - a. DBCC check databases – Validate consistency of databases
  - b. Maintenance Plan Wizard – 284
2. Set up "Monitoring"
  - a. SQL Profiler – 293 (Depreciated in 2012)
    - i. Create Trace - 294
    - ii. Running Trace – 301
    - iii. Filter Trace
  - b. Extended Events – 303
  - c. Create Sessions – 304
  - d. Monitor Performance – 308
3. Manage Logins, Users, Groups – SQL Login vs. Active Directory
  - a. Contained Databases – 322/327 – see AlwaysOn note - 331
4. Resource Governor – 333 (RECONFIGURE)
  - a. Pools
  - b. Workload/Resource consumption
    - i. Max Degree Parallelism: The Microsoft SQL Server max degree of parallelism (MAXDOP) configuration option controls the number of processors that are used for the execution of a query in a parallel plan.  
<http://support2.microsoft.com/kb/2806535>
  - c. Classifier Functions – 340
    - i. Testing functions – 341
    - ii. Modifying - 343
5. SQL Agent: ***Is my friend!!*** – 345 - Regularly scheduled tasks must be performed to ensure that disaster recovery, retention policies, index performance, and monitoring goals are maintained.
  - a. Operators – 346/352

- i. Notifications by email - 352
- b. Alerts & Jobs - 354 - A job may use a schedule to run automatically, an operator may be notified if a job succeeds or fails, or an operator may be notified if an alert is fired.
  - i. Events that trigger alerts – 354
  - ii. Jobs - 357
- c. Proxies –
- d. SSIS – Integrations Services packages (ETL) Extract, Transform, and Load.
- e. Agent Configuration
  - i. Security account
  - ii. Error log location
  - iii. Start settings (Auto, Manual, etc.) – 346
    - 1. Control properties – 349
    - 2. Include Execution Trace Properties – 350
- 6. Database Mail – 365 – Mail log – 376
- 7. Triggers – 379
  - a. Data Definition – For auditing the creation of databases on a server or objects within a database and fire based on events that occur at the server and database level.
  - b. Data Manipulation – 225 - triggers are executed only when a user or application attempts to modify data using Data Manipulation Language (DML). DML includes INSERTs, UPDATEs, and DELETEs against views and tables.
  - c. Create triggers – 380
  - d. ALL SERVER option – 383
  - e. Disable vs. Delete – 384
  - f. Drop - 358
- 8. Dynamic Management Objects (DMO's, DMV's & DMF's)
  - a. Wait statistics – most common – 388
  - b. Query server – 390
  - c. Execution Plans – 392 – finding “expensive” queries/code.
  - d. Indexing statistics – 393
  - e. 4 Key Columns – 395 weigh non clustered index performance.
    - i. Low numbers of seeks, scans, and lookups versus a high number of user updates means this index s being maintained but rarely used.
  - f. Fragmentation - 396