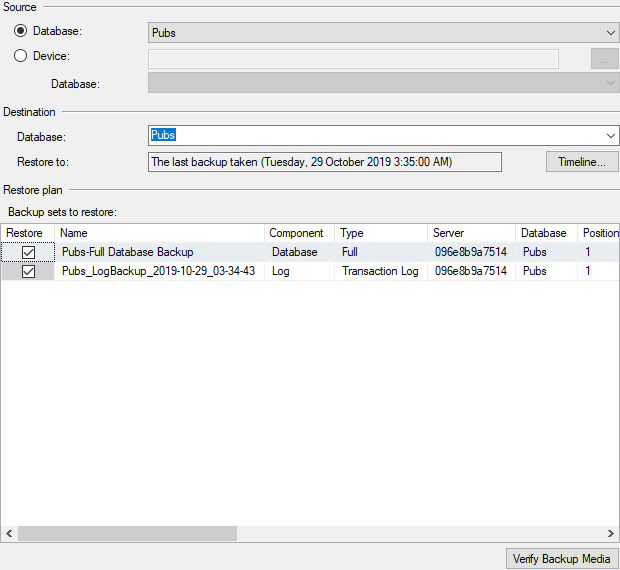
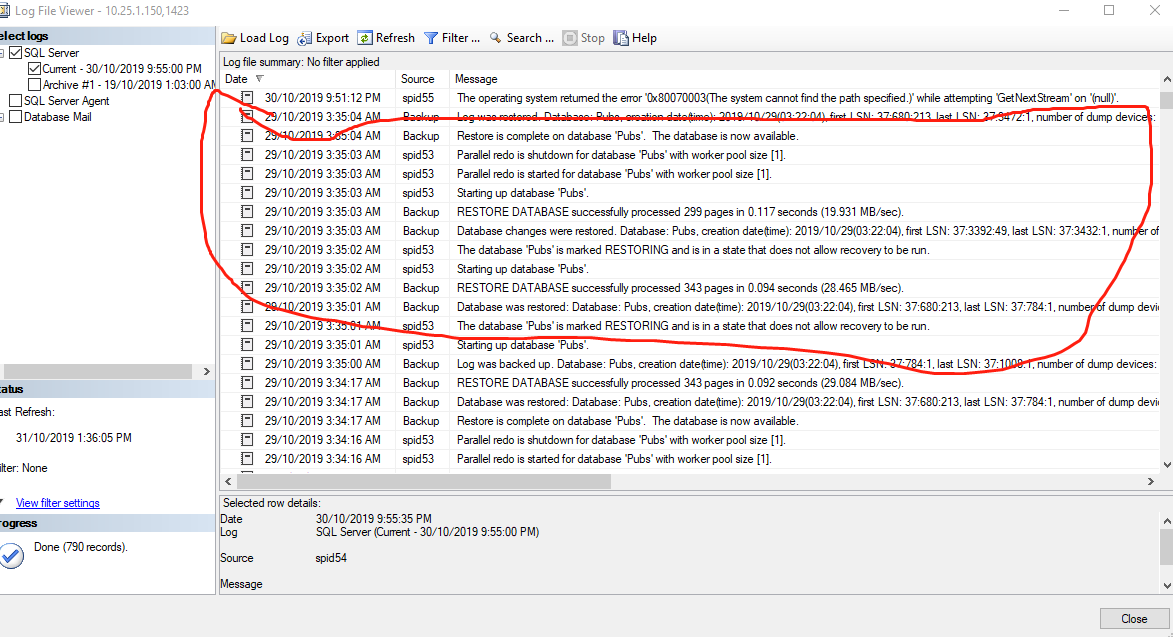
# Week 13 Practical

# Duties of a DBA

## Examine each of these carefully, screen captures and notes can be used as proof of completion. Perform any additional setup as required to complete these tasks.

Part 1:

* Check the previous night’s SQL Server database and transaction log backups and SQL Server Agent jobs for errors.
* 
* 
* Automate a daily backup schedule (Full and Differential)

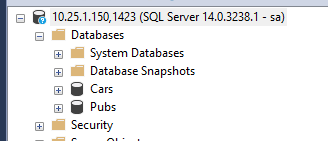
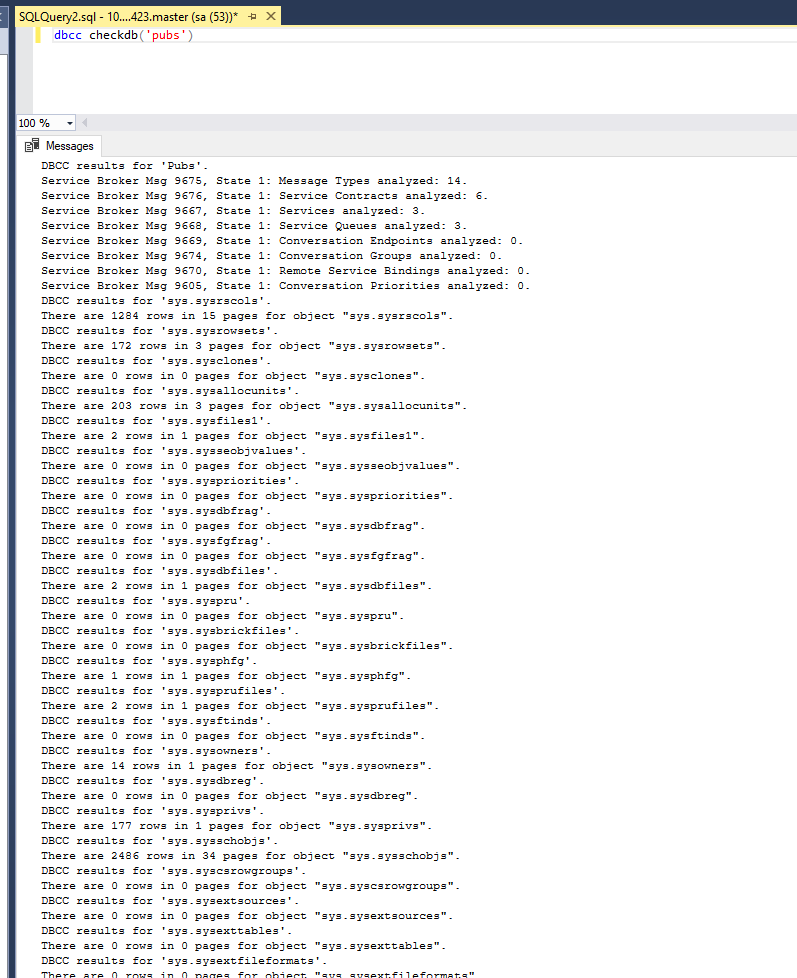
There are three ways to backup:

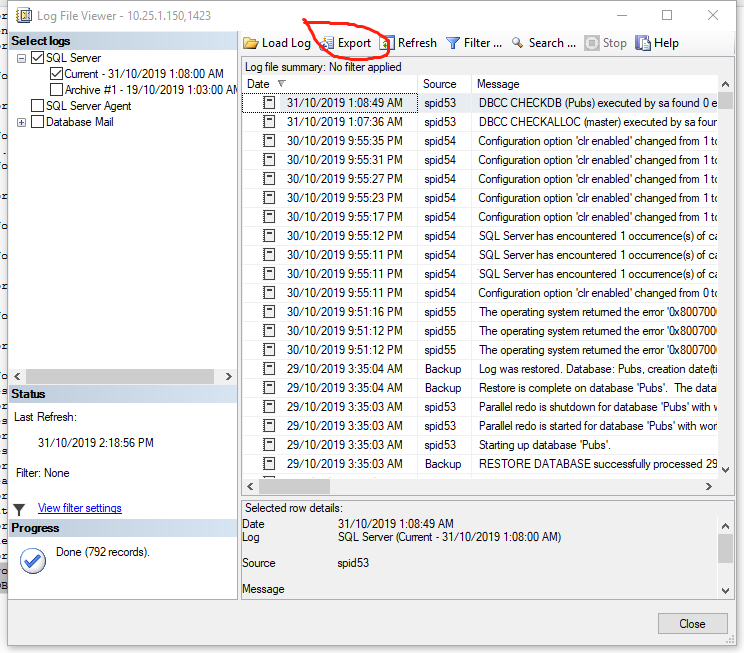
* 1. User SQL Server Agent
  2. Under the Management Plans right click to go backup wizard
  3. Choose database, right click goes to task to backup

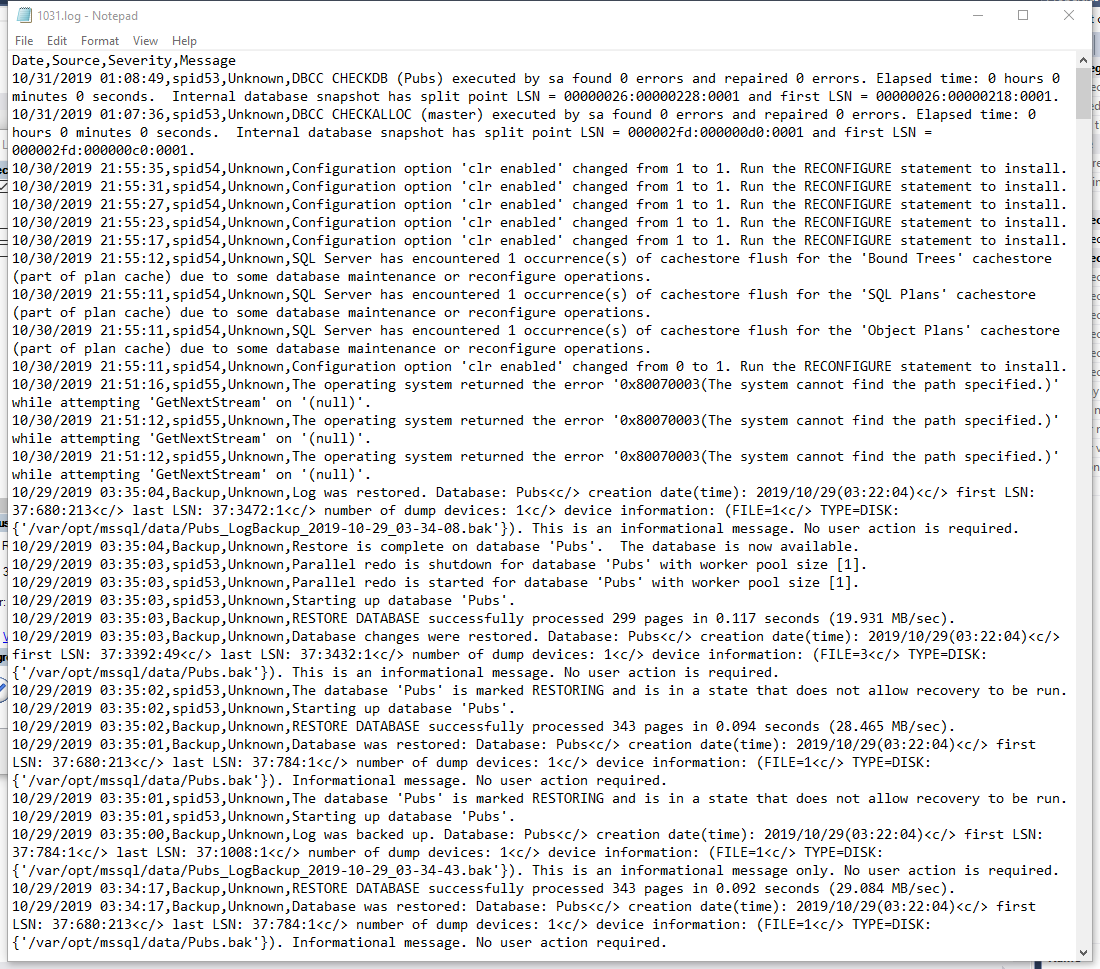
To set automate schedule using a SQL Server Agent job

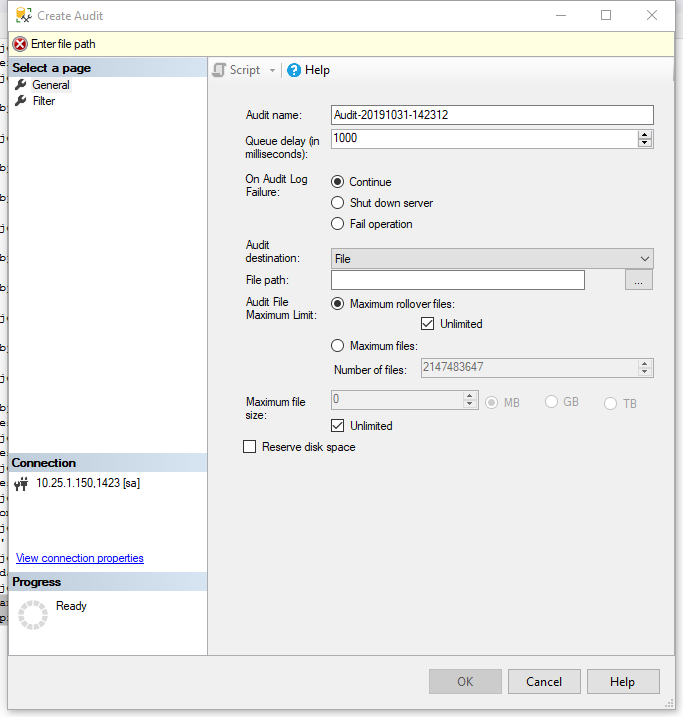
* 1. Create a new job
  2. Under the Schedule tab select an occurring frequency, duration and a start date and click OK, done.
* Check all databases to make sure all are up and not marked as suspect. Check previous DBCC CHECKDB for errors.

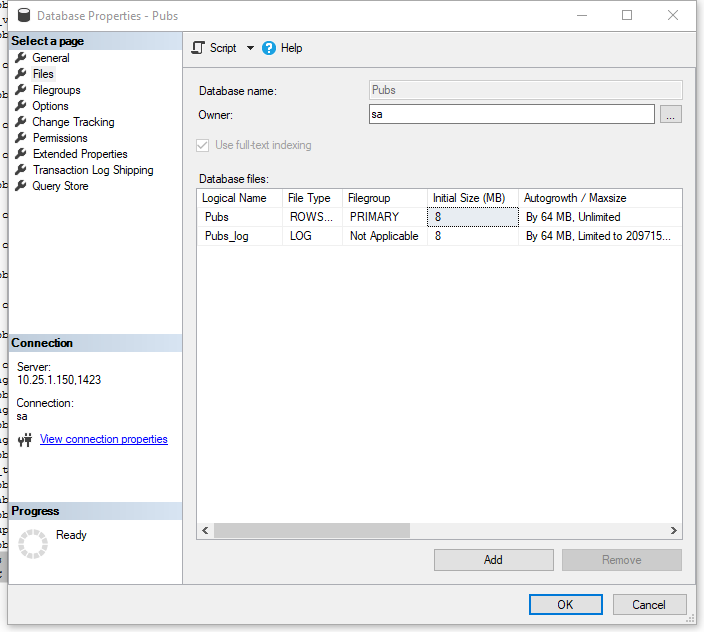
CHECKDB found 0 allocation errors and 0 consistency errors in database 'Pubs'.

* DBCC execution completed. If DBCC printed error messages, contact your system administrator.
* 
* 
* Check SQL Server Log File entries for warnings and errors and determine if any entries warrant further investigation. Export and save the current log file.





* Look for any security policy violations. Look for resources on the server, such as file sizes and disk space, and audit growth for long-term projections.
* 



* Explore using long-running queries or tasks, Perfmon, etc. to generate data. Set up a sensible logging report to monitor disk and memory usage.

SELECT creation\_time

,last\_execution\_time

,total\_physical\_reads

,total\_logical\_reads

,total\_logical\_writes

, execution\_count

, total\_worker\_time

, total\_elapsed\_time

, total\_elapsed\_time / execution\_count avg\_elapsed\_time

,SUBSTRING(st.text, (qs.statement\_start\_offset/2) + 1,

((CASE statement\_end\_offset

WHEN -1 THEN DATALENGTH(st.text)

ELSE qs.statement\_end\_offset END

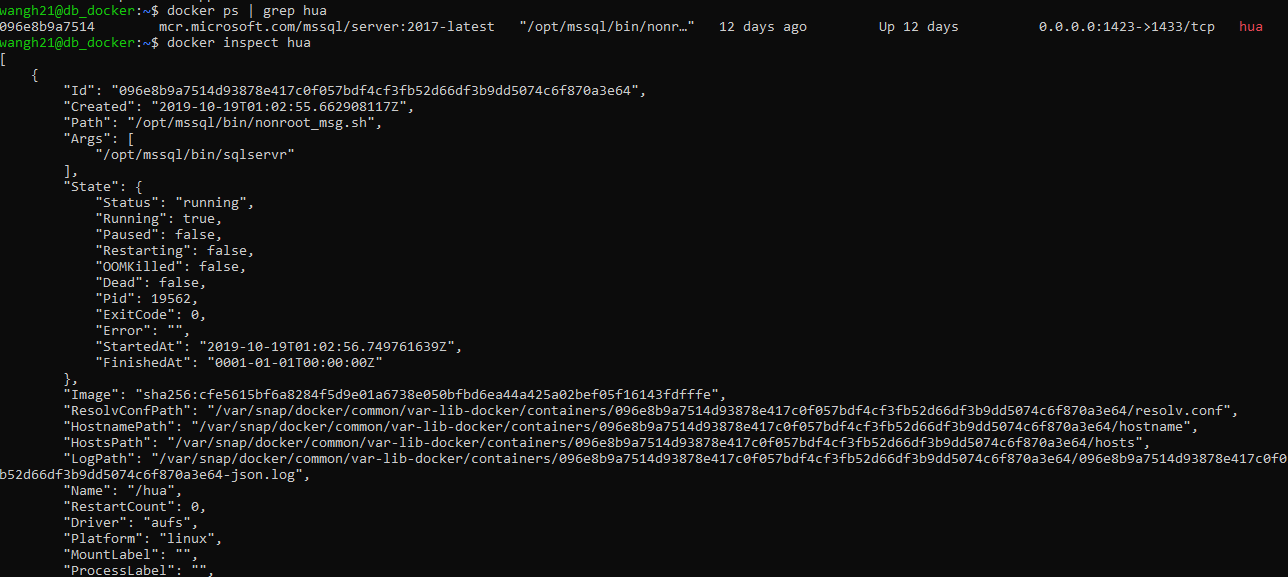
- qs.statement\_start\_offset)/2) + 1) AS statement\_text

FROM sys.dm\_exec\_query\_stats AS qs

CROSS APPLY sys.dm\_exec\_sql\_text(qs.sql\_handle) st

ORDER BY total\_elapsed\_time / execution\_count DESC;

* What about your Container? What sort of usage data can you extract.



All database, tables, and values, I can use SMSS remote connected to backups, also I can physically copy the mdf, ldf files at the server. Or use WinScp to download my local macheine to store…

### Use your pubs database

Part 2. Task 1 (Task 2 will follow next week)

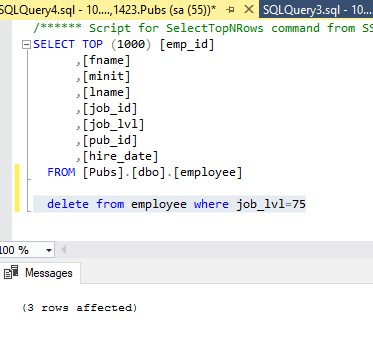
You want to recover a single table from a database backup – why?

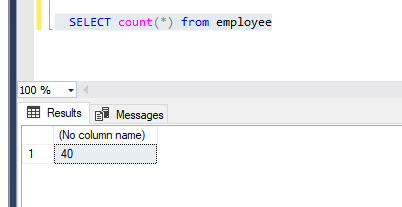
It is the only table effected by a recent data loss.

Restoring an entire backup can take a significant amount of time, and you are under a lot of pressure to get it done fast

Perform the necessary data adjustments to check your solution is correct (delete rows etc). Provide a script for each of the following scenarios:

1. The table still exists, but only some rows were deleted, restore the deleted data only.





**USE original\_database**

**GO**

**SET IDENTITY\_INSERT table\_1 ON**

**INSERT INTO table\_1 (column\_name)**

**SELECT \***

**FROM restored\_database.table\_1**

**SET IDENTITY\_INSERT table\_1 OFF**

1. The table has been too badly damaged; restore the table structure and all the data.
2. **USE original\_database**
3. **GO**
4. **SELECT \***
5. **INTO table\_1**
6. **FROM restored\_database.table\_1**
7. **GO**

**DBCC CHECKTABLE ("table\_1")**