# Week 13 Lab 1 Practical

# Duties of a DBA - Backup and Restore

Woody

**Completing this worksheet will help prepare you for the next mini assessment. This is a checkpoint, you may work in pairs.**

1. **What are some common tasks a DBA can be expected to complete? For each also list how often they should occur**

*Check all databases and their statuses - Daily*

*Automate full and differential daily backups - Daily*

*Check Security policy violations aswell as resources to ensure disk space is adequate (when alerted from notifications)*

*Check previous sql server database transaction logs and errors (daily)*

*Creating user profiles (when needed)*

*Installing and upgrading the database server and application tools*

*Monitoring technical support for database systems and related apps.*

*Creating reports from queries (when needed)*

*Migrating database instances (when needed)*

1. **How would you automate your production backups?**

*Create scheduled tasks and scripts.*

1. **How would you check your backups to validate that they were successfully created?**

*TEST TEST TEST the backups*

*DBCC CHECKDB for allocation or consistency errors.*

1. **List the three backup models in SQL Server and the associated pros and cons.**

*File*

* *Pros: Individual files and small*
* *Cons: Can get quite complex*

*Transaction log*

* *Pros: Not truncated*
* *Cons: If log is damaged work that is performed since previous backup is lost*

*Differential*

* *Pros: Quick and small*
* *Cons: More steps and more time to back up. Two Backup files are required*

1. **List the two ways these backup models can be set (include any syntax)**

*Create a backup by clicking on database-task-backup*

*Or*

**Running a script:** USE MyDatabase;

GO

BACKUP DATABASE MyDatabase

TO DISK = 'C:SQLServerBackupsMyDatabase.Bak'

WITH FORMAT,

MEDIANAME = 'C\_SQLServerBackups',

NAME = 'Full Backup of MyDatabase;

GO

**Let have a quick run through. Files on the I: drive and in Gitlab.**

**Install the Pubs database on your containerised MSSQL Server (installpubs.sql).**

**Take a full backup of your Pubs database (make sure you have closed any query windows).**

**Insert the Pubs data.**

**Take a differential backup.**

**Insert a new author <YourName> (or update an existing author).**

**Take a differential backup.**

**Restore the full backup only (explore the Options and the Timeline)**

**Verify there is no data.**

**Restore the full backup + differential + transactions logs.**

**Confirm your data is in its most recent state.**

**DBCC CHECKDB for allocation or consistency errors.**