**SQL Server Checklist on Azure SQL VM**

1. Host Caching for all the Disks
2. Database files in each drive
3. Max memory cap for SQL Server
4. Add SQL server service account to Administrators group
5. Tempdb striping and setting up the initial size
6. Add a task to recreate the Tempdb folder post server reboot.
7. Database Compatibility of user databases
8. Setup Rebuild Index and Update Stats jobs
9. Setup Backup jobs through SQL Agent/Portal (Recovery Service Vault)
10. Enable Backup Compression at SQL Server Instance level
11. Change SQL Server Audit Login Policy
12. Add Lw\_monitor DB and monitoring SPs
13. Check with App team and set initial size of (mdf & ldf) file to higher values.
14. Change the Autogrowth for user database to 500MB for mdf and 200MB for ldf file
15. Check with App team and change the DM/DWH DB to Simple recovery mode.

**Host Caching on SQL VM**

1. For the disk hosting mdf/ndf file, change the caching to “ReadOnly”
2. For the disk hosting ldf file, change the caching to “None”
3. If Tempdb is hosted outside of D drive, change the caching to “ReadOnly”

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?view=azuresql-vm#data-file-caching-policies>

**Change the Database file path**

1. Make sure User database mdf file, ldf file and tempdb files are separated, they need to be separated and are to be hosted in dedicated drives.

<https://learn.microsoft.com/en-us/sql/relational-databases/databases/move-user-databases?view=sql-server-ver16>

**Max Memory Cap for SQLServer**

1. Change the max memory cap for SQL server from default value. Considering ETL tool and reporting service may also be hosted on the same server, allocate 75-80% of total server memory to SQL Server.

Use Master  
GO  
EXEC sp\_configure 'max server memory (MB)','Enter the value here'

GO

RECONFIGURE  
GO

**Add SQL Service Account as Administrator**

1. Database Instant File Initialization setting needs to be enabled for the data file grow to go faster. Add SQL Server service account and Agent account to Administrator group on the server.
2. Restart the SQL Server services after it has been to Admin group.

<https://learn.microsoft.com/en-us/sql/relational-databases/databases/database-instant-file-initialization?view=sql-server-ver16>

**Tempdb Striping**

1. Tempdb needs to moved to D drive as Microsoft recommended.
2. Tempdb needs to be striped to multiple files (equal to the number of cores in the server)
3. Initial size of the Tempdb needs to be increased and made all of same size. Initial size depending on load and database requirements.
4. For SQL Server versions of SQL 2016 or lower, add trace flags 1117 & 1118. Ignore this step for SQL server version of 2017 or higher.
5. If Tempdb is hosted in any other drive other than D, change the host caching policy to “Readonly”
6. All the above changes may require SQL Server restart.

<https://www.brentozar.com/archive/2017/11/move-tempdb-another-drive-folder/>

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-checklist?view=azuresql-vm>

**Add a Task in Windows Task Scheduler**

1. D drive will get formatted after Server upgrade or when VM gets moved to different host. This will cause SQL server to be unavailable as D hosts tempdb. Add a task in task scheduler to check and recreate D:\Tempdb folder post server reboot.

<https://blog.idera.com/database-tools/configuring-tempdb-on-azure-iaas-for-sql-server>

**Database Compatibility**

1. Check and change the DB compatibility of user database to latest version.  
   ALTER DATABASE [DatabaseName] SET COMPATIBILITY\_LEVEL = EnterValueHere
2. Change the DBowner for all the database to sa.

**Setup Maintenance Jobs**

1. Run the attached script below to create sql agent jobs for Rebuild index and Update stats.
2. Modify “IndexOptimize - USER\_DATABASES” job to change the sql script to below
3. Create a new job “UpdateStats\_Daily” to add the below script
4. Create weekly schedule for “IndexOptimize - USER\_DATABASES” job during the maintenance window.
5. Create daily schedule for “UpdateStats\_Daily” job.



**Setup Backups**

1. Create backup schedule either through Azure portal (Recovery Service Vault) or through SQL Agent jobs
2. Backup Policy recommended is Full Backup weekly & Differential Daily or Full Backup Daily.

**Enable Backup Compression**

1. Enable backup compression setting at SQL Instance level.

EXEC sp\_configure N'backup compression default', '1'  
GO  
RECONFIGURE  
GO

**Change SQL Server Log Audit Policy**

1. Change the Login Auditing policy to “Both Successful and Failed Logins”
2. Change the Data file, Log file and Backup file path at SQL Instance level
3. Restart the SQL Server Instance.
4. Get the Log file path and reachout to CO team, to get the Audit configured in Sumo Logic.

**Create Lw\_Monitor DB**

1. Create Lw\_Monitor database from the attached script and add the monitoring SPs (\*\*To be Updated\*\*)

**Set Initial size of Database**

1. Check with the App team on the estimated database size for the DW/Datamart. Change the initial size of mdf file to atleast 20gb, ldf file size to 10gb
2. Change the Autogrowth setting for mdf file to 500mb and log file to 200mb.

**Change the Recovery Mode**

1. Check with App team and change the recovery model for database to Simple.
2. This change affects the SLA of the database as there will be no point in time recovery and DB recovery can happen only till last Differential/Full Backup. Please confirm with App team before making this change.
3. If the DB needs to be in Full recovery mode, configure Log backups.

ALTER DATABASE [BatchJobTesting\_Any] SET RECOVERY SIMPLE