Where is My SQL Agent?

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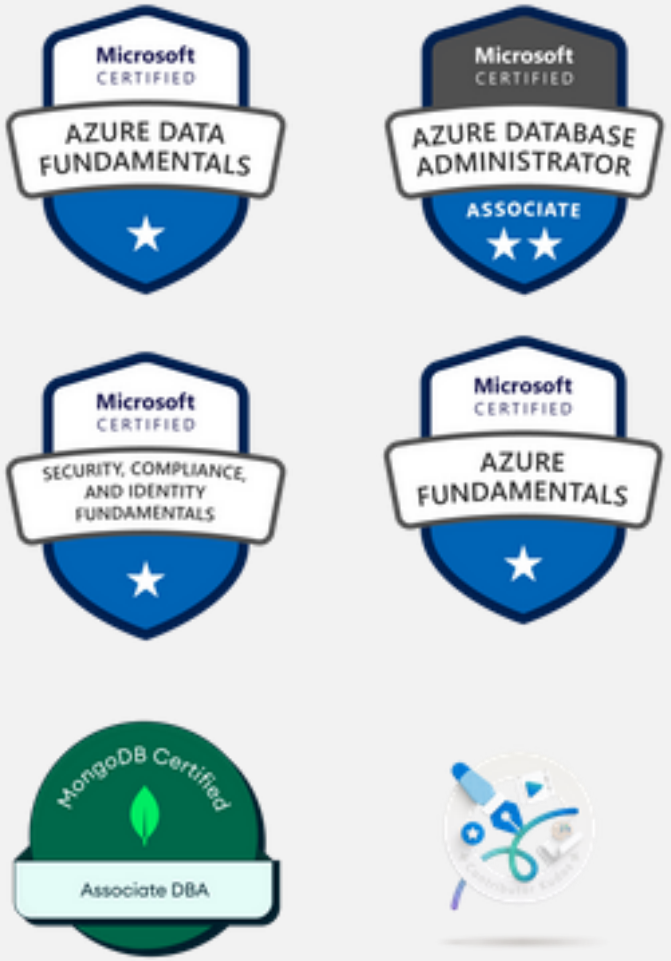


Integrity Checks

Index Maintenance

Update Statistics

Purge Old data

Track Blocking

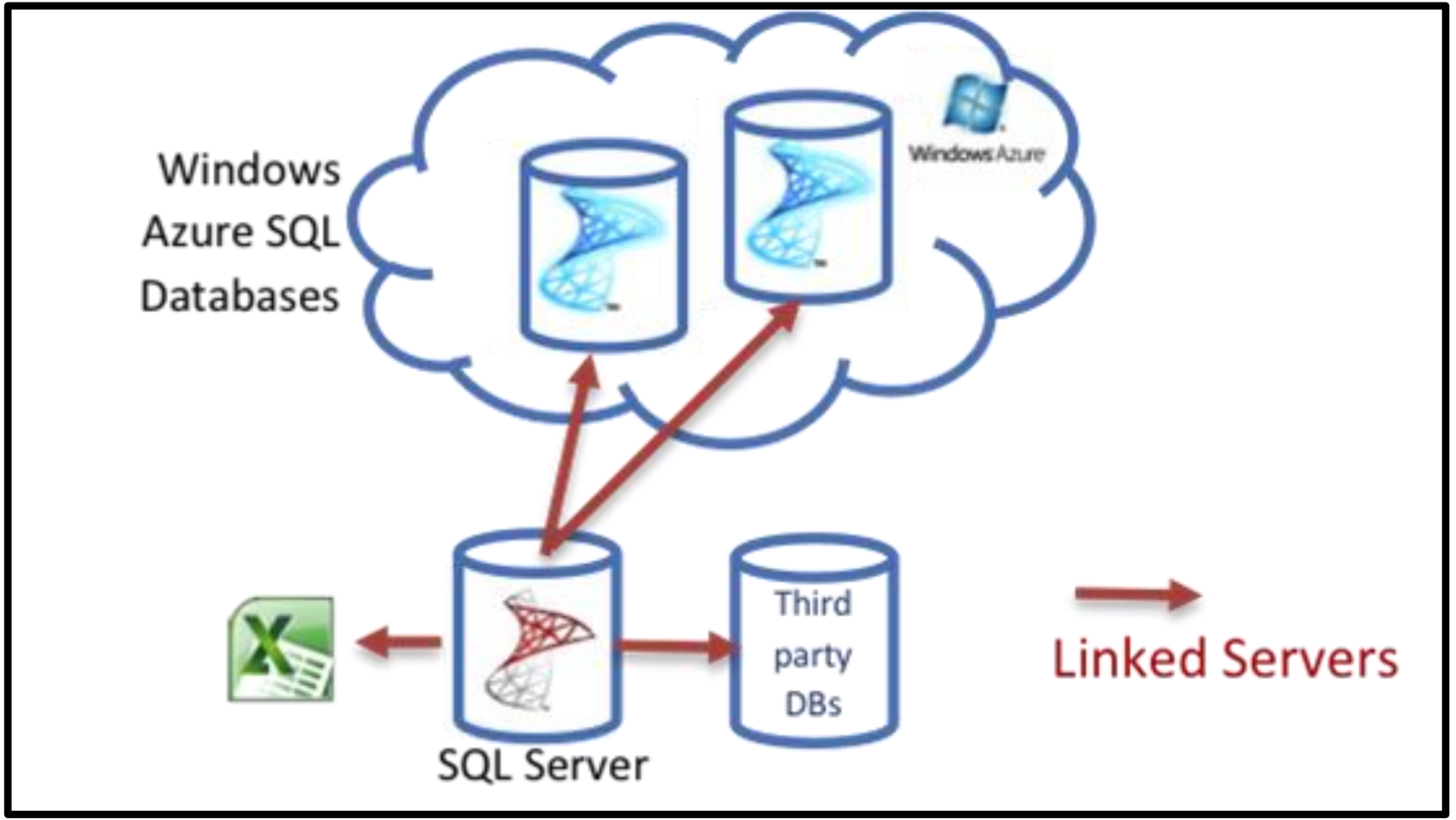
Collecting WMI

Long Running Queries

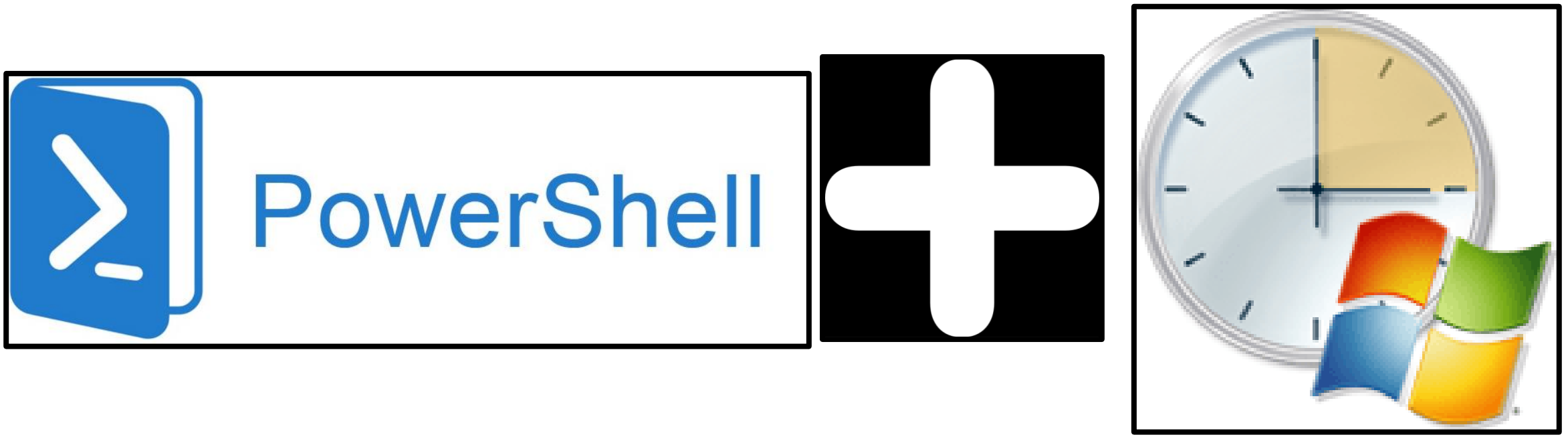
Wait Statistics

Collecting DMV

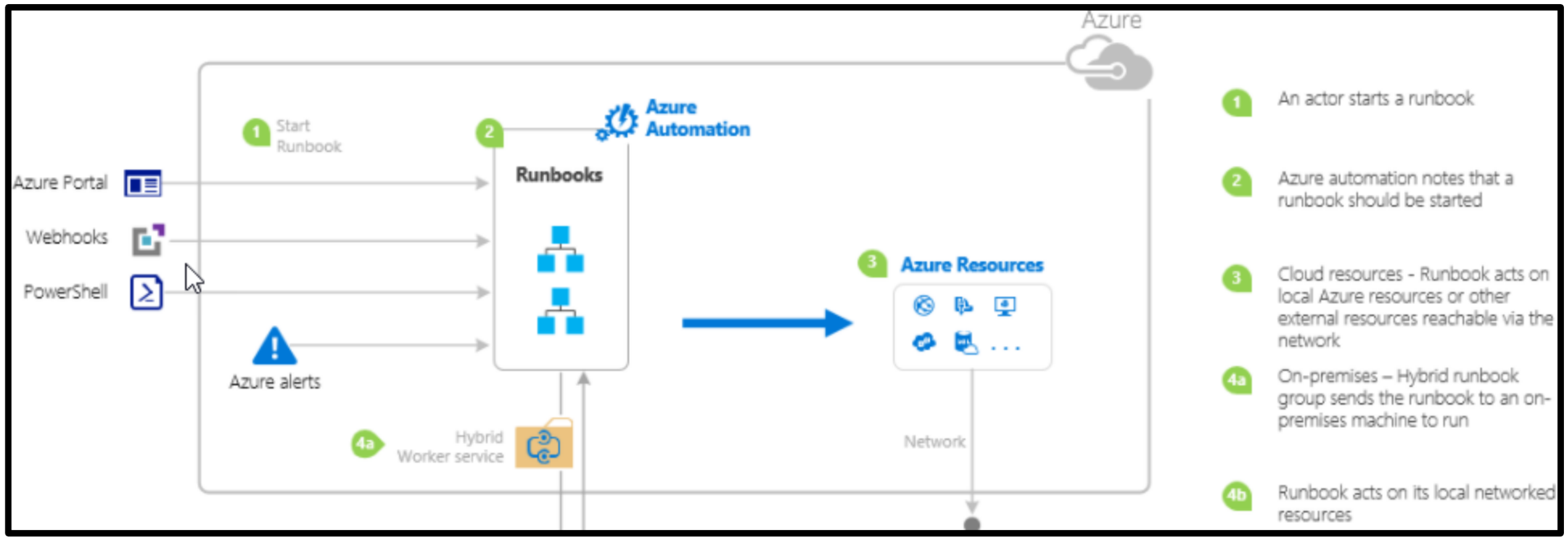
On-Premise	Azure-IaaS	Azure-PaaS
• Linked Server • PowerShell/ Windows Scheduler • 3rd Party Scheduler	• SQL Server on Azure VM • PowerShell/Azure VM Windows Scheduler	• Azure Automation • Azure Function • Azure Data Factory • Elastic Job Agents • Web Jobs

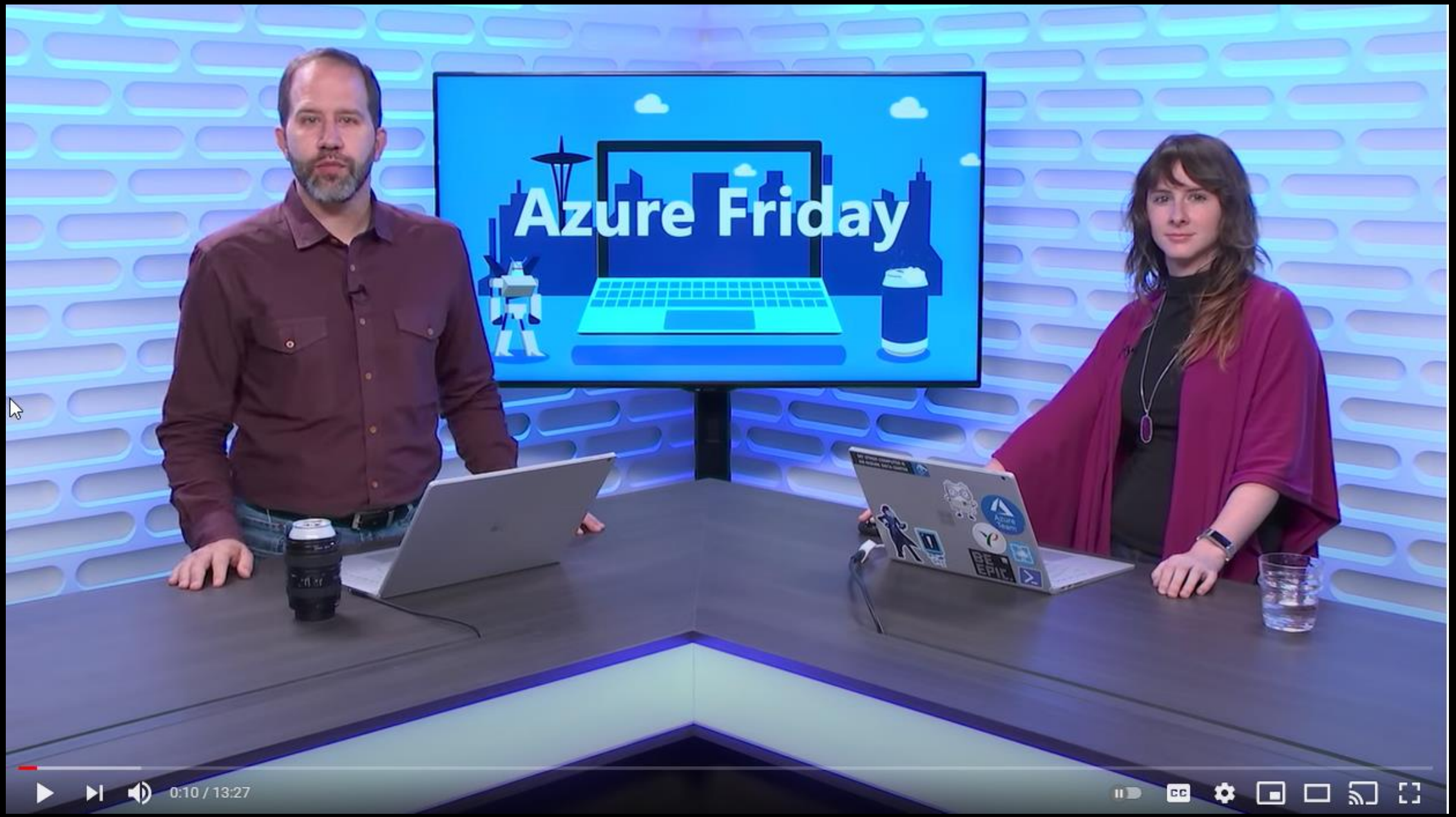


https://azure.microsoft.com/ja-jp/blog/announcing-updates-to-windows-azure-sql-database/

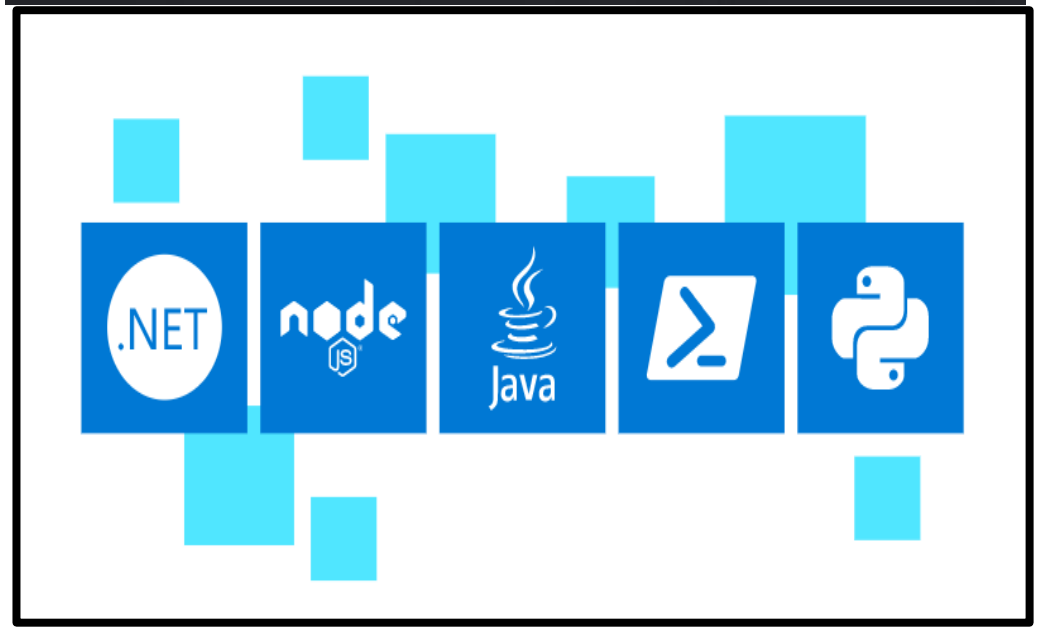


https://www.fullstackpython.com/powershell.html
https://www.adamtheautomator.com/create-jenkins-jnlp-scheduled-tasks-powershell-dsc/


Azure
1 Start Runbook
2
Azure Automation
Runbooks
Azure Portal
Webhooks
PowerShell
Azure alerts
3 Azure Resources
4a Hybrid Worker service
Network
1 An actor starts a runbook
2 Azure automation notes that a runbook should be started
3 Cloud resources - Runbook acts on local Azure resources or other external resources reachable via the network
4a On-premises – Hybrid runbook group sends the runbook to an on-premises machine to run
4b Runbook acts on its local networked resources



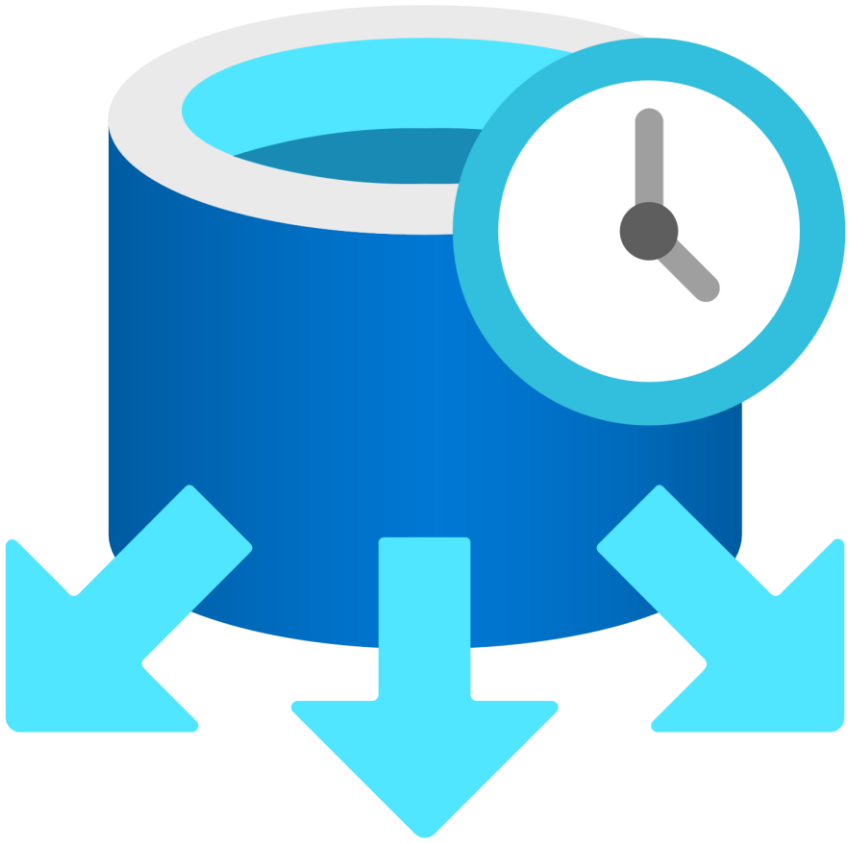
Azure Automation | Azure Friday

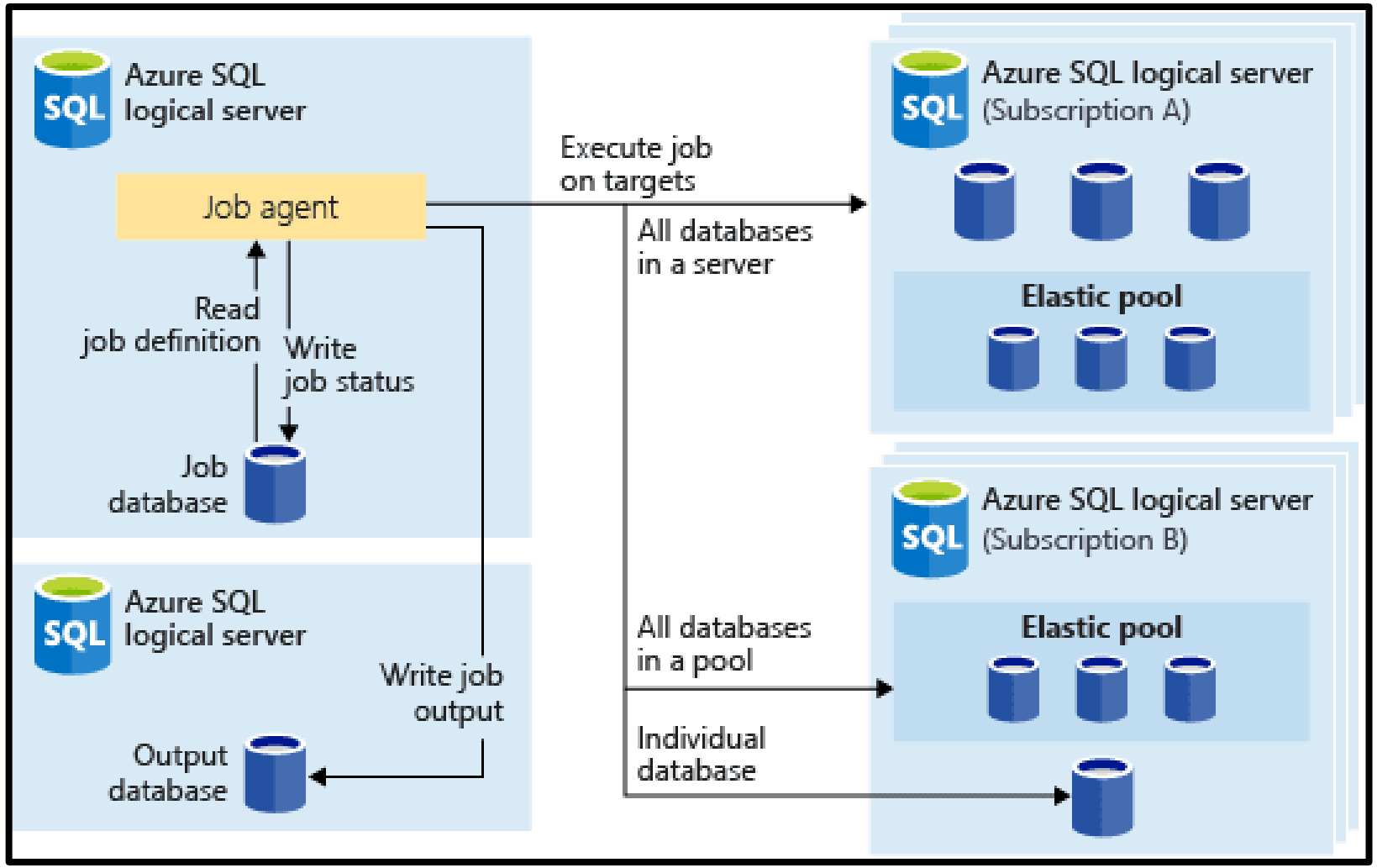


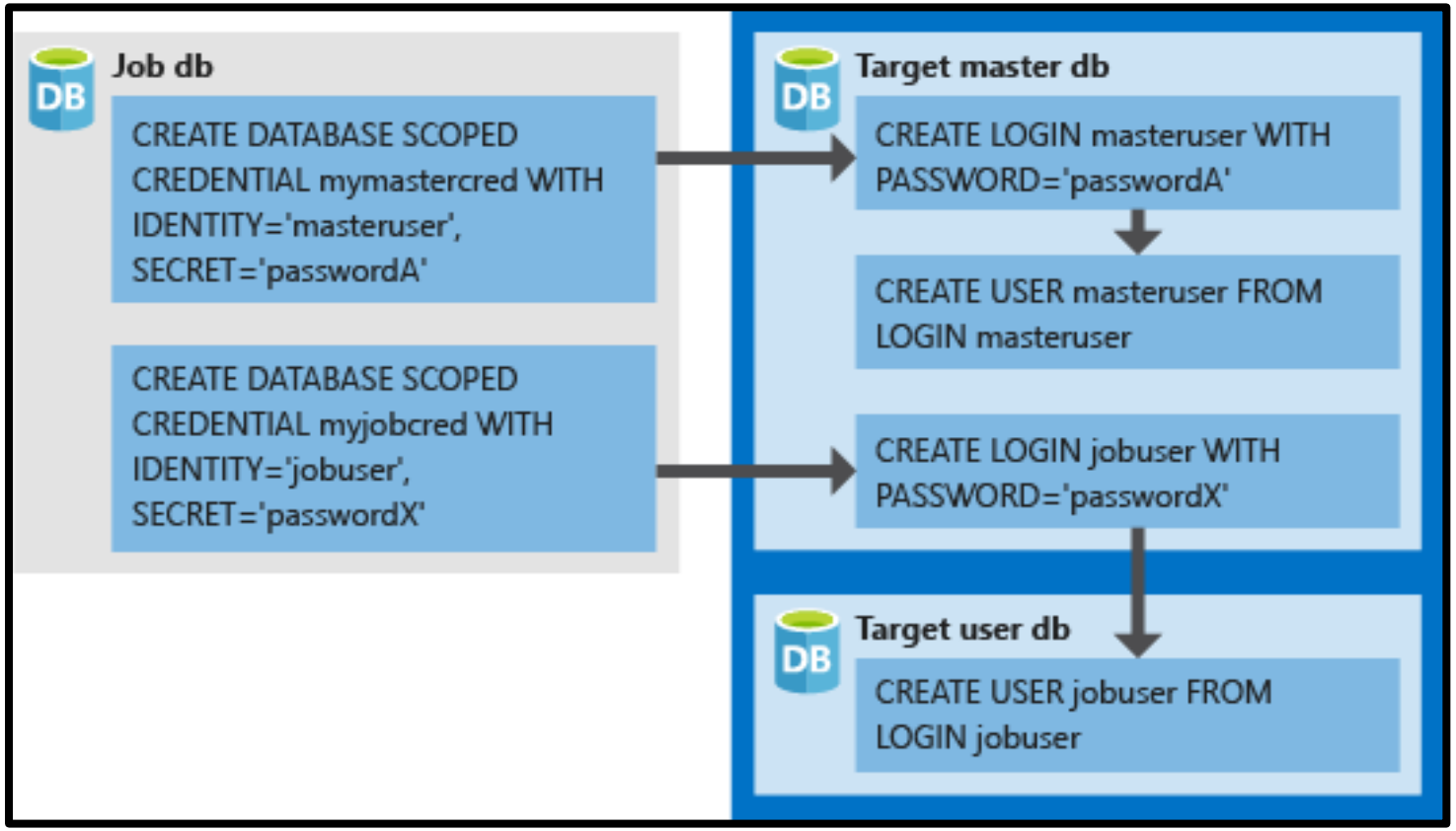
- Event Driven
- Serverless Compute
- Choice of language
- Pay per Use
- Bring your own dependencies
- Simplified integration
- Development flexibility
- Open source
- Flexible hosting plan

- Introduction to Azure Functions

- Develop Azure Functions




Azure SQL logical server
Job agent
Read job definition
Write job status
Job database
Azure SQL logical server
Write job output
Output database
Execute job on targets
All databases in a server
All databases in a pool
Individual database
Azure SQL logical server (Subscription A)
Elastic pool
Azure SQL logical server (Subscription B)
Elastic pool

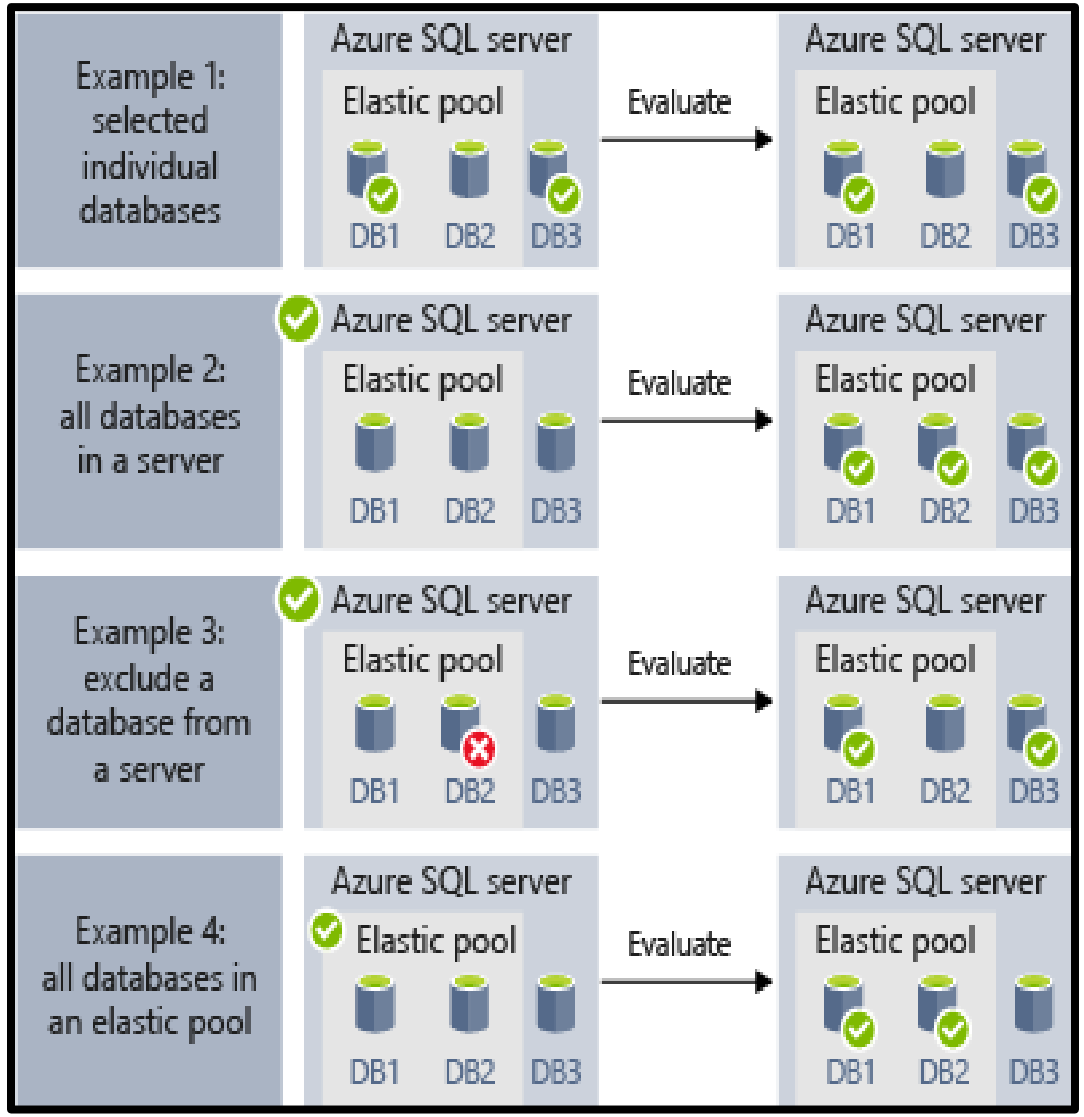


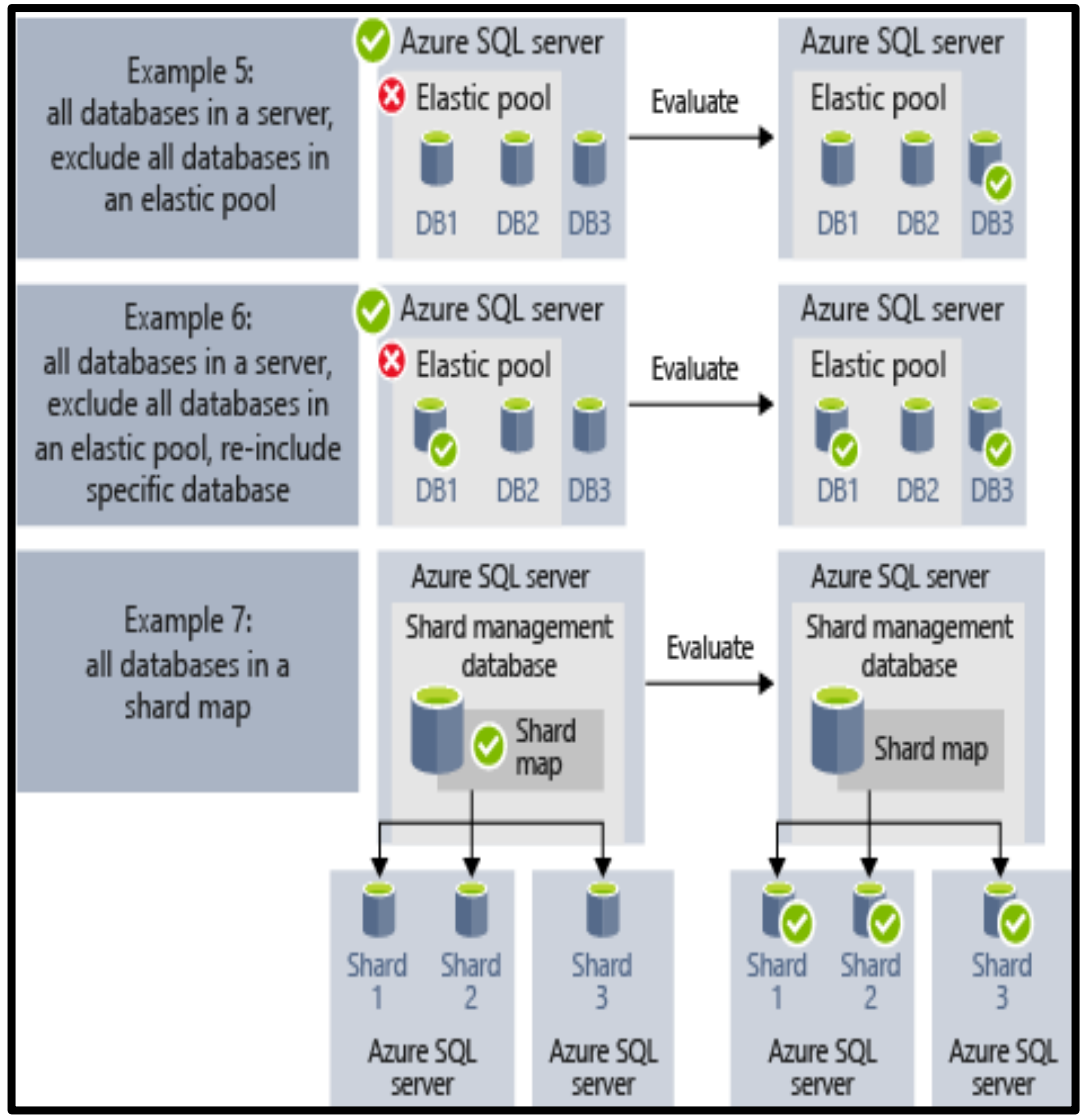
Elastic Job Agent

Job Database

Target Group

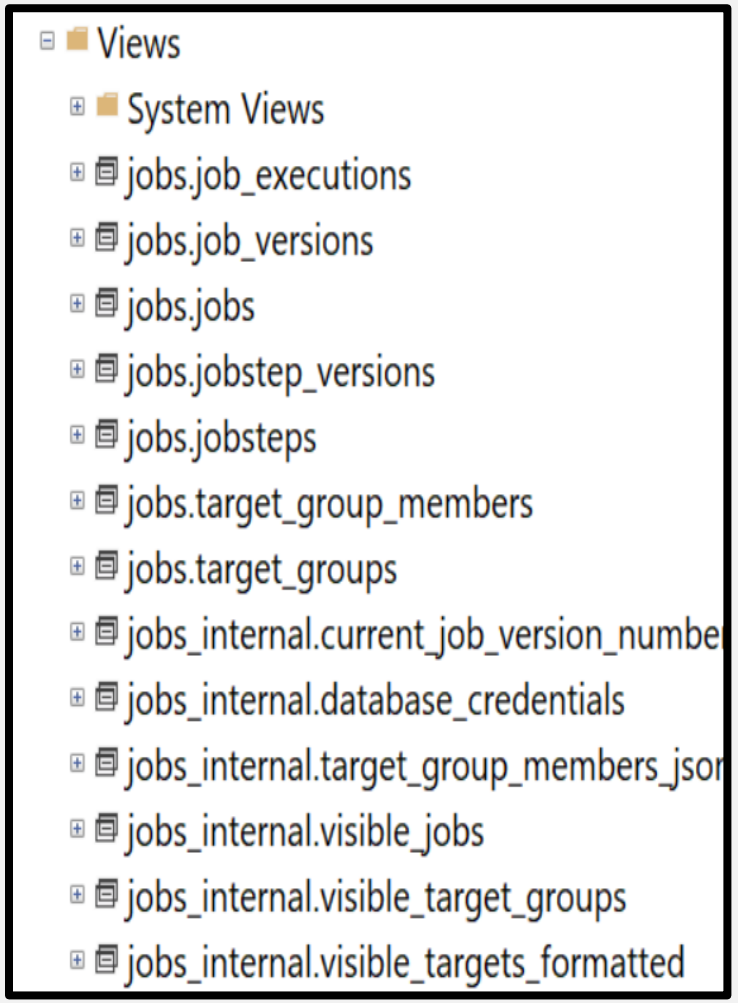
Job

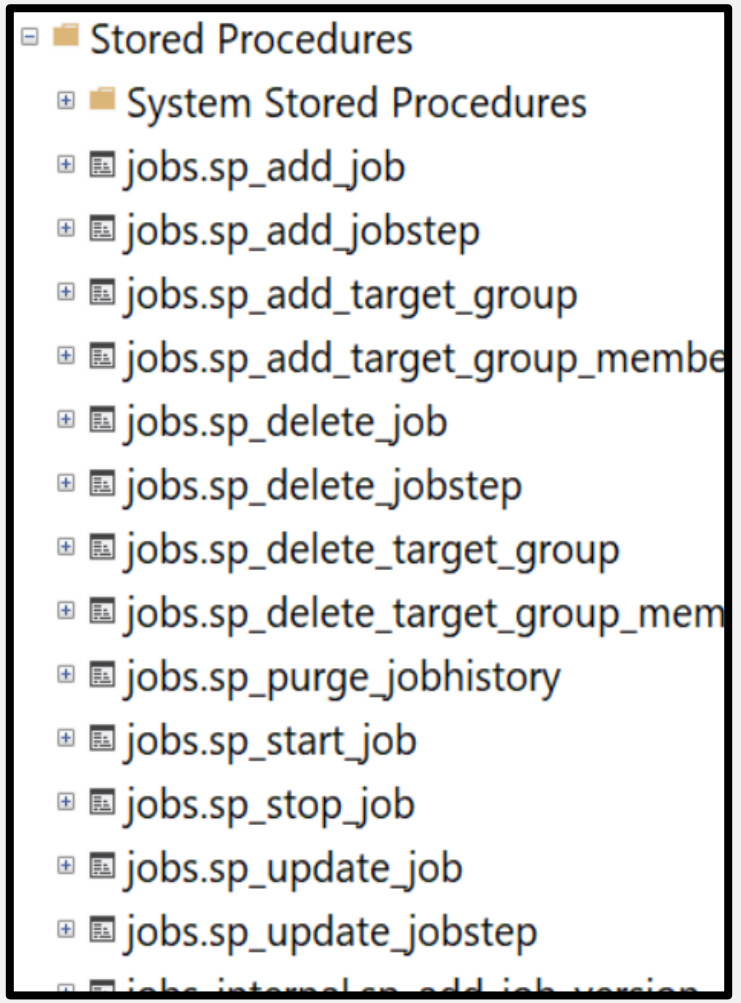




https://learn.microsoft.com/en-us/azure/azure-sql/database/job-automation-overview?view=azuresql

Tables
System Tables
External Tables
GraphTables
jobs_internal.__MigrationHistory
jobs_internal.command_data
jobs_internal.job_cancellations
jobs_internal.job_executions
jobs_internal.job_task_executions
jobs_internal.job_versions
jobs_internal.jobs
jobs_internal.jobstep_data
jobs_internal.jobsteps
jobs_internal.script_batches
jobs_internal.target_associations
jobs_internal.target_group_memberships


Views
System Views
jobs.job_executions
jobs.job_versions
jobs.jobs
jobs.jobstep_versions
jobs.jobsteps
jobs.target_group_members
jobs.target_groups
jobs_internal.current_job_version_numbe
jobs_internal.database_credentials
jobs_internal.target_group_members_jso
jobs_internal.visible_jobs
jobs_internal.visible_target_groups
jobs_internal.visible_targets_formatted


Stored Procedures
System Stored Procedures
jobs.sp_add_job
jobs.sp_add_jobstep
jobs.sp_add_target_group
jobs.sp_add_target_group_membe
jobs.sp_delete_job
jobs.sp_delete_jobstep
jobs.sp_delete_target_group
jobs.sp_delete_target_group_mem
jobs.sp_purge_jobhistory
jobs.sp_start_job
jobs.sp_stop_job
jobs.sp_update_job
jobs.sp_update_jobstep

100 concurrent jobs

Can limit parallel job execution

History over 45 days purged

ADS 1.44.1

SQL2012 CU5

PS 7.*

Multiple Options

Hybrid Model

Multiple Language

Know Limitations

Scalability

Be Flexible

Resource

- Automate management tasks using database jobs
- Creating a Linked Server to an Azure SQL Database
- An introduction to Azure Automation
- Azure Automation runbook types
- Azure Functions Documentation
- Use Transact-SQL (T-SQL) to create and manage Elastic Database Jobs
- Choose the right integration and automation services in Azure

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THANK
YOU