
HANDLE AZURE SQL
AUDITING WITH EASE

ABOUT ME

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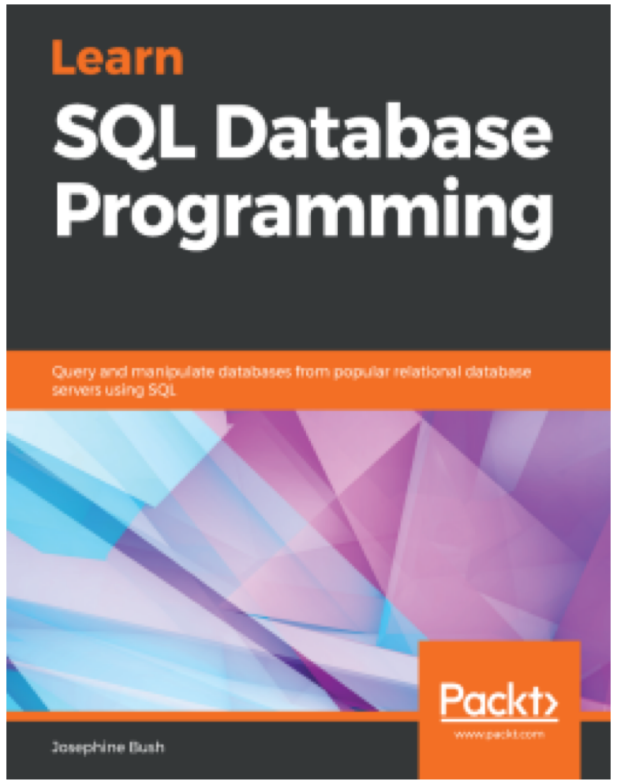
10+ years DBA experience

MBA IT Management

MS Data Analytics



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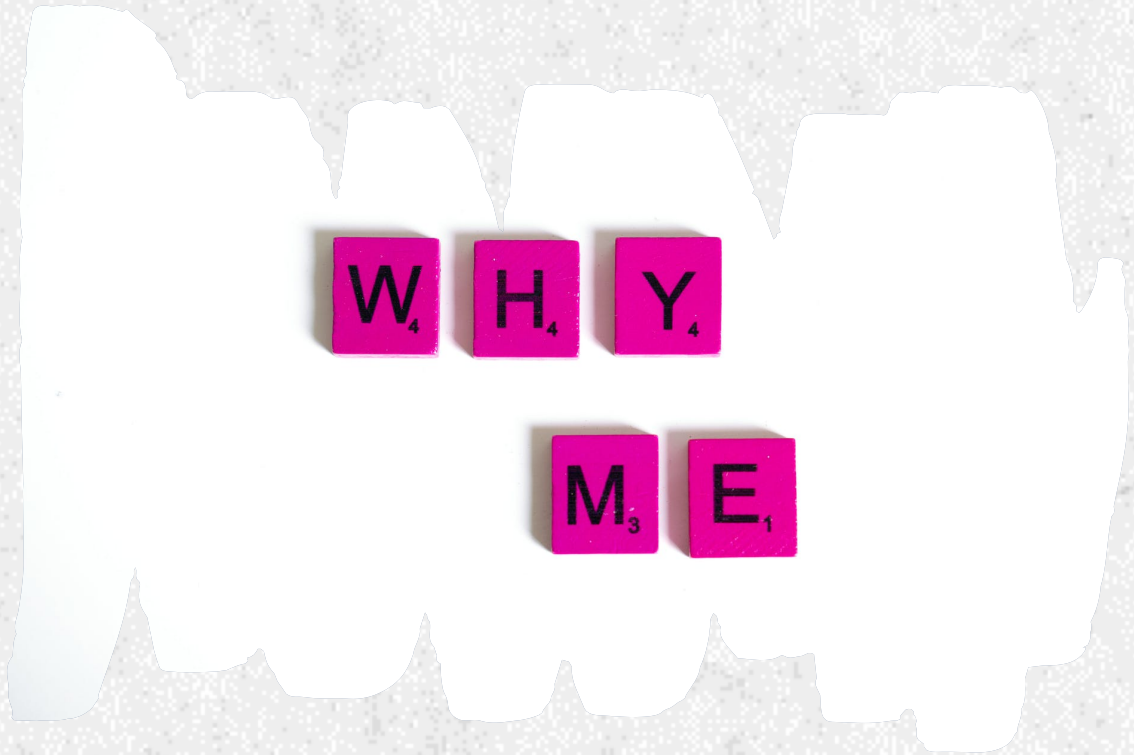
WHAT IS AUDITING?

Collecting and examining information to determine proper use or misuse



WHY AUDIT?

Maybe your company says they don’t value knowing what’s going on in your databases, but….

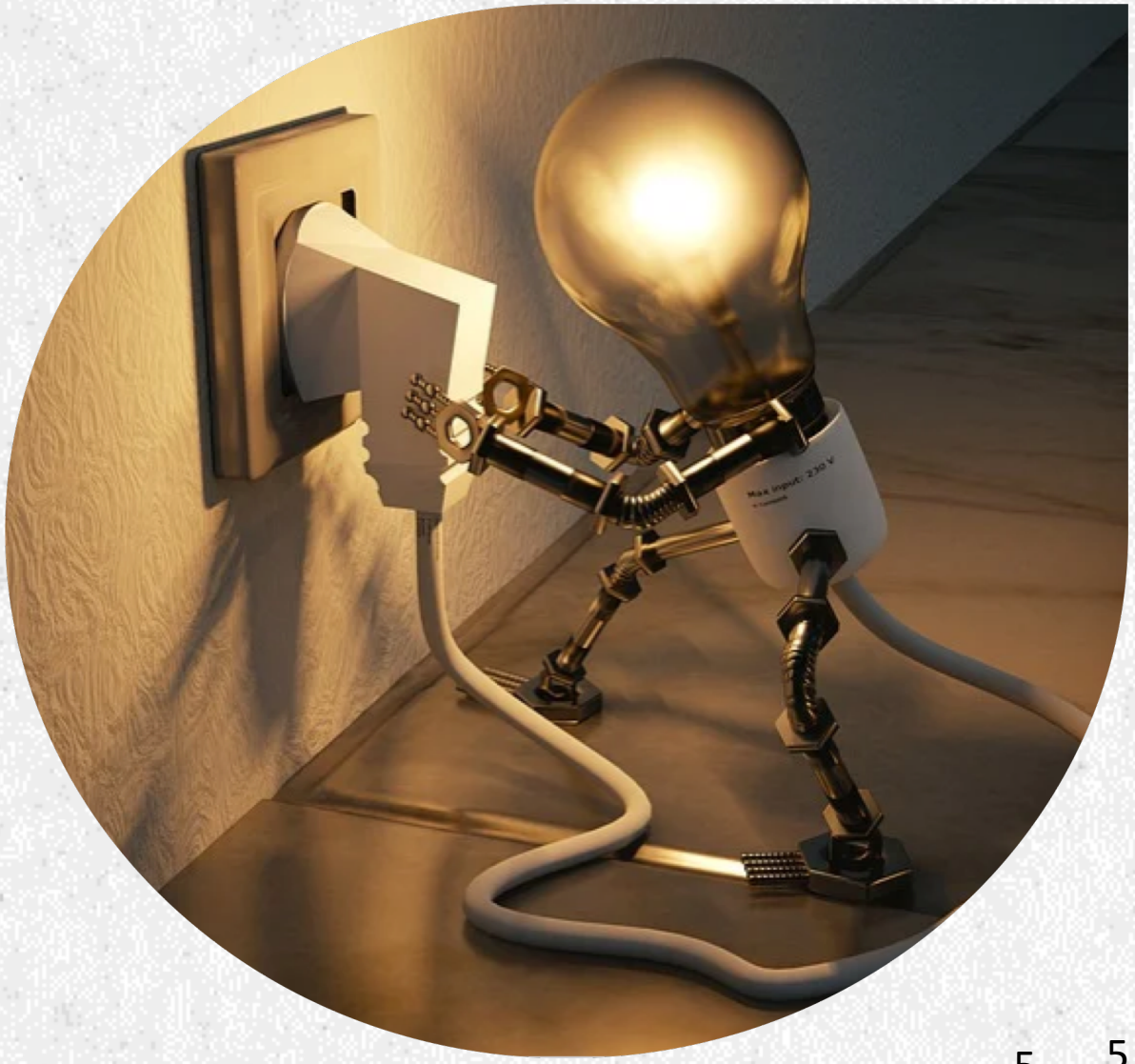
PROBLEMS AUDITING CAN SOLVE

Who broke this?

Who changed this?

Who used this?

You can audit pretty much everything anyone does in SQL Server!



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CLOUD SQL AUDITING OPTIONS

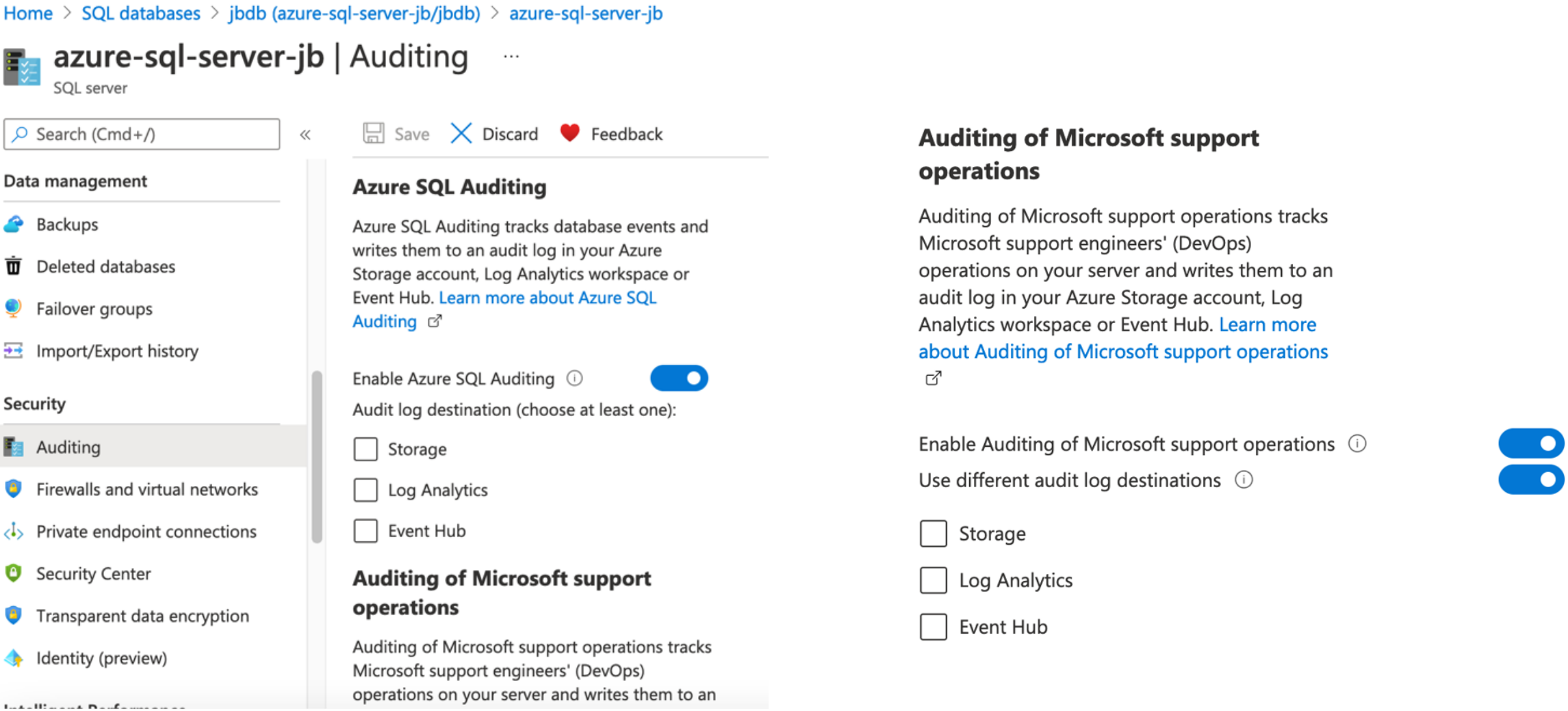
Cloud solution	SQL Server Audit Available	Extended Events Available	Auditing differences
Azure SQL	No	Yes	SQL Server audit quasi equivalent via Azure portal
Azure SQL Managed Instance	Yes	Yes	Need to use cloud storage
SQL Server VM	Yes	Yes	Uses disk storage
Amazon Web Services RDS	Yes	Yes	Need to use cloud storage

AZURE SQL AUDITING

Audit at server and database level via the portal

Use these to see queries run by users on Azure SQL

ENABLING AZURE SQL AUDITING

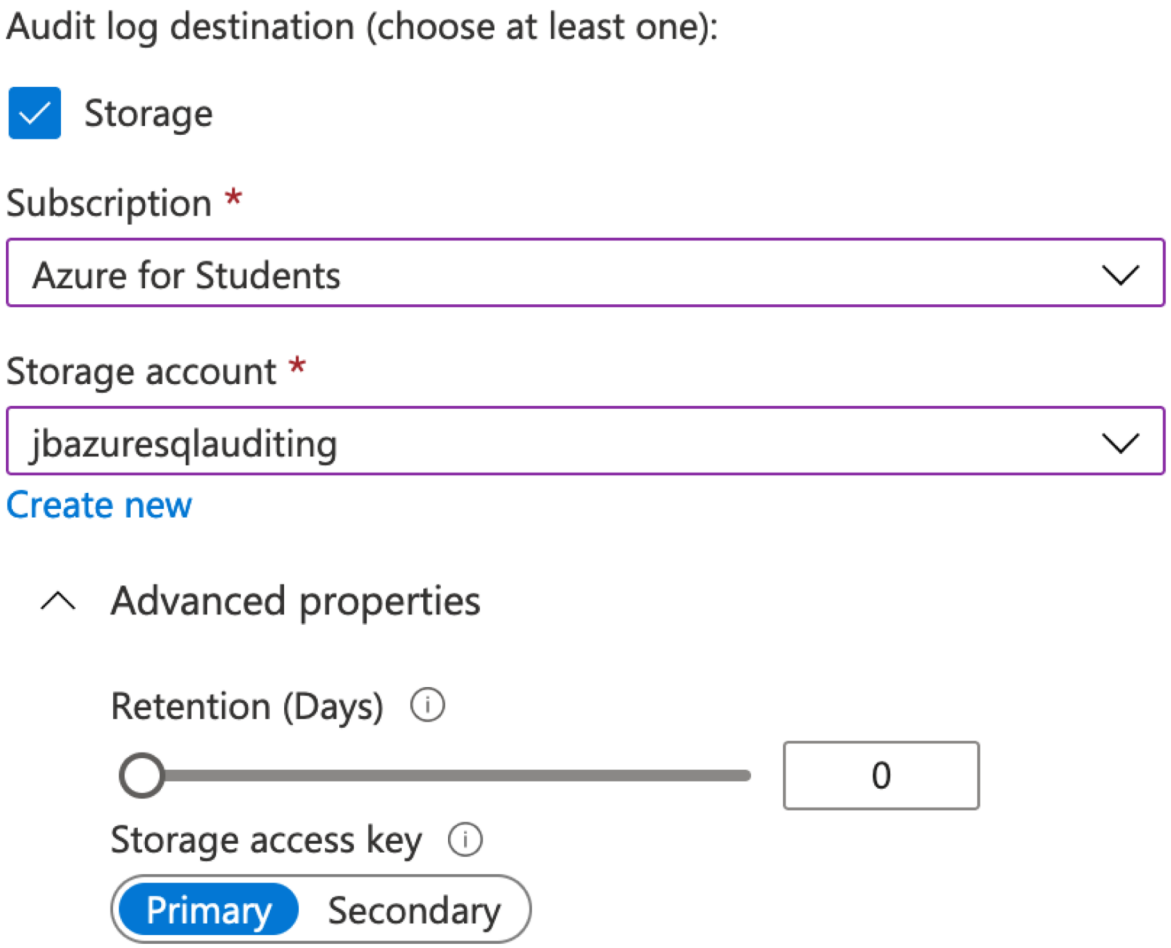


AZURE SQL AUDITING OPTIONS

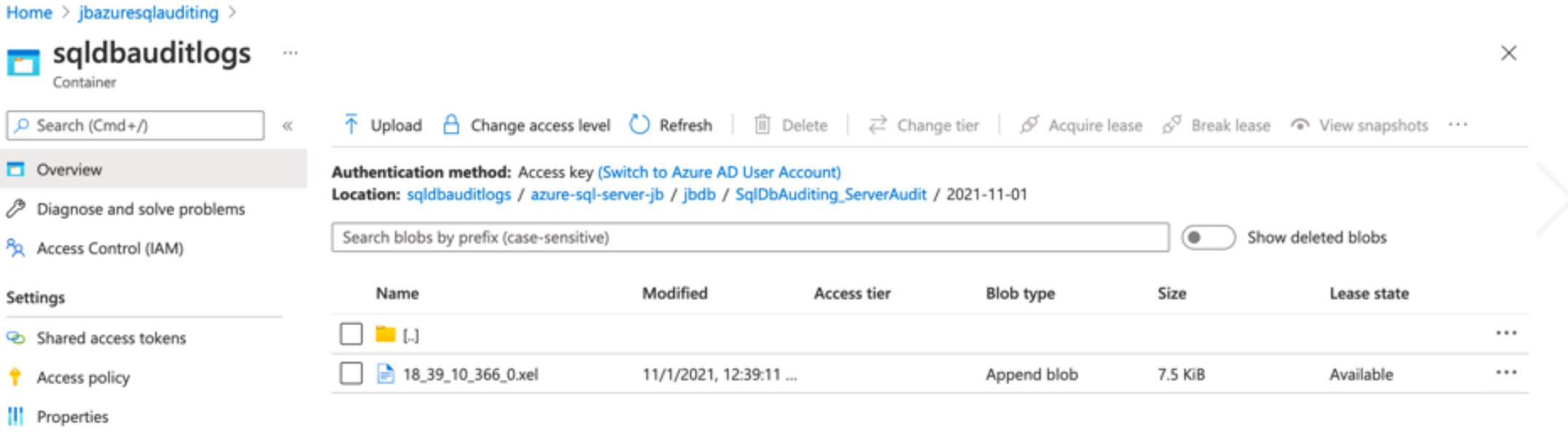
Audit log destination (choose at least one):

- [ ] Storage
- [ ] Log Analytics
- [ ] Event Hub

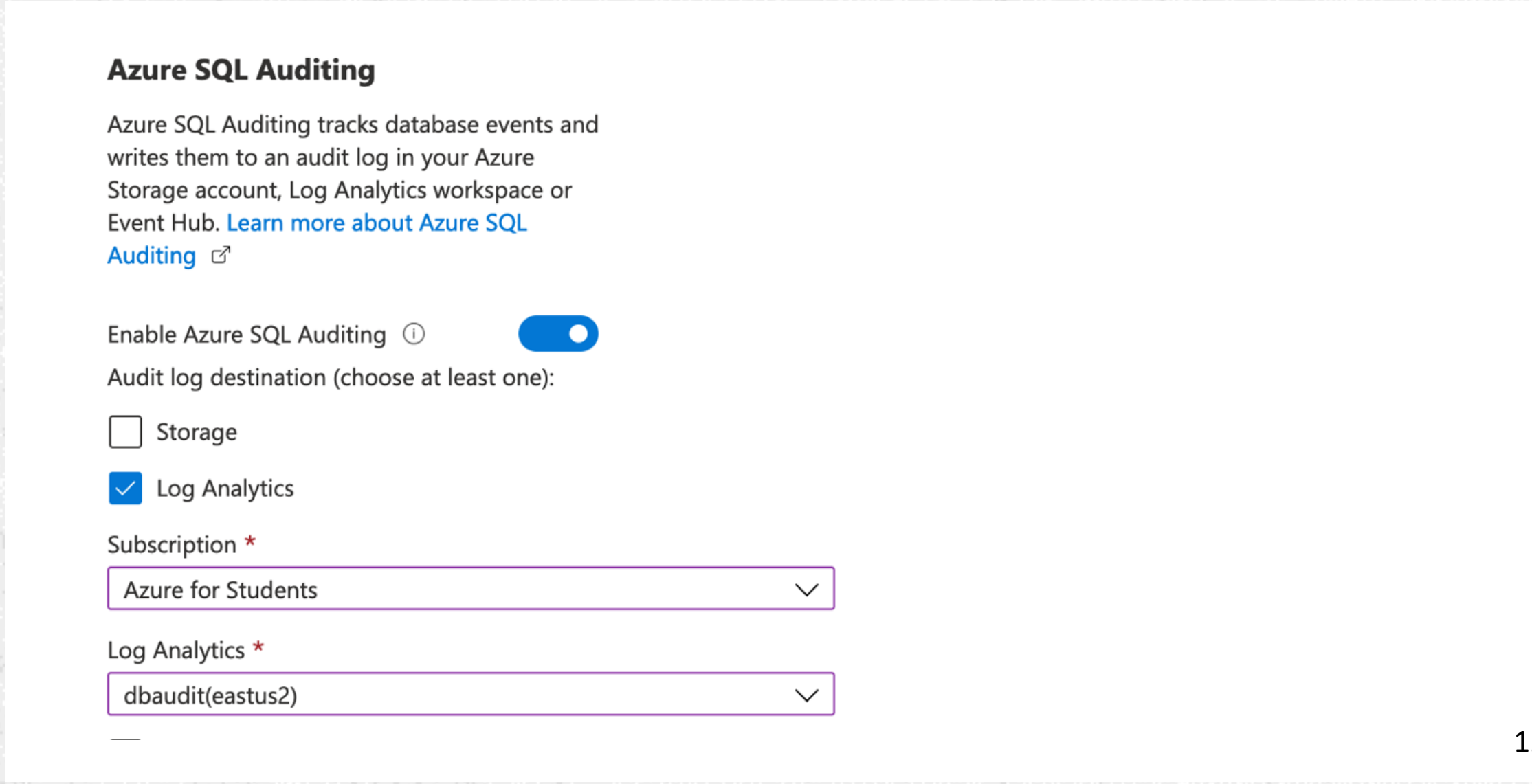
AZURE SQL AUDITING STORAGE



AZURE SQL AUDITING STORAGE FILES

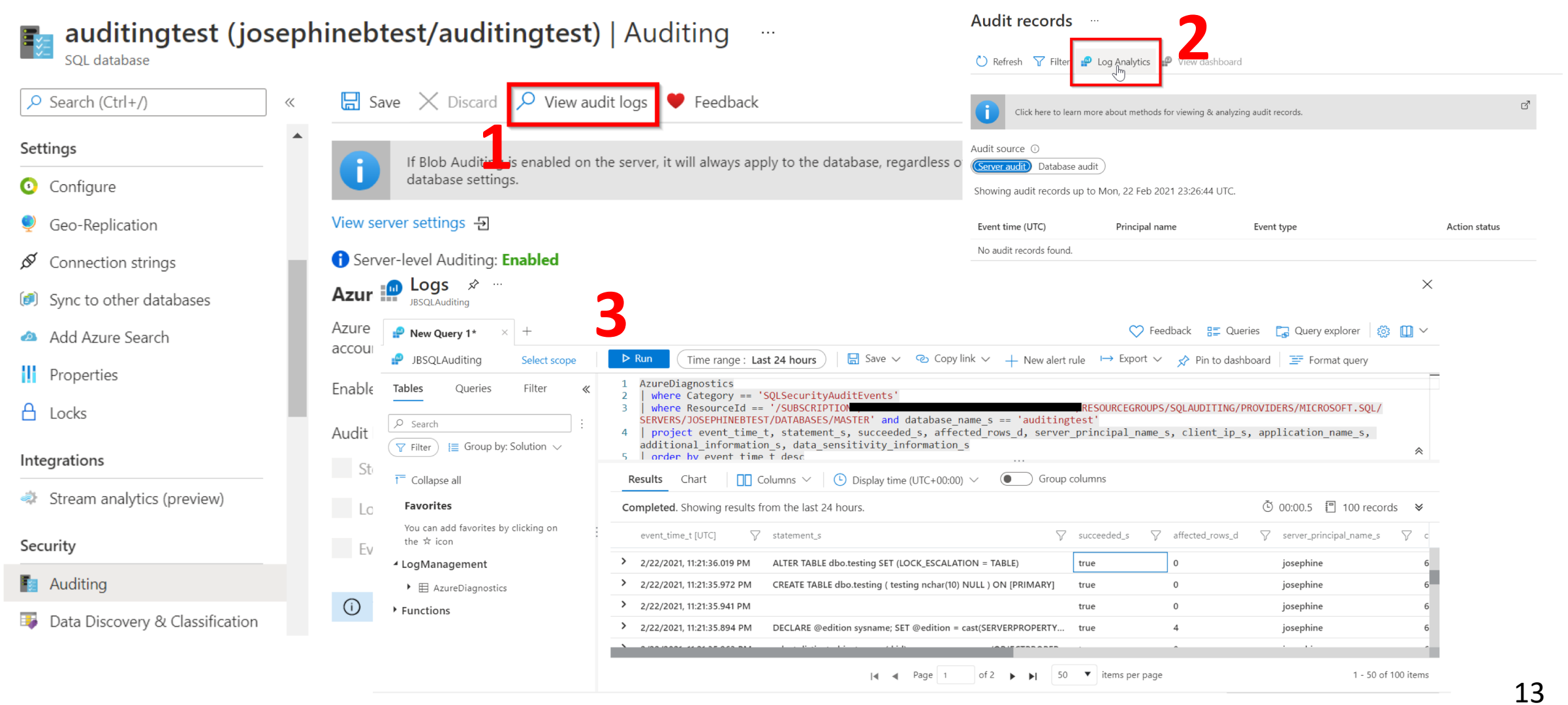


AZURE SQL AUDITING LOG ANALYTICS

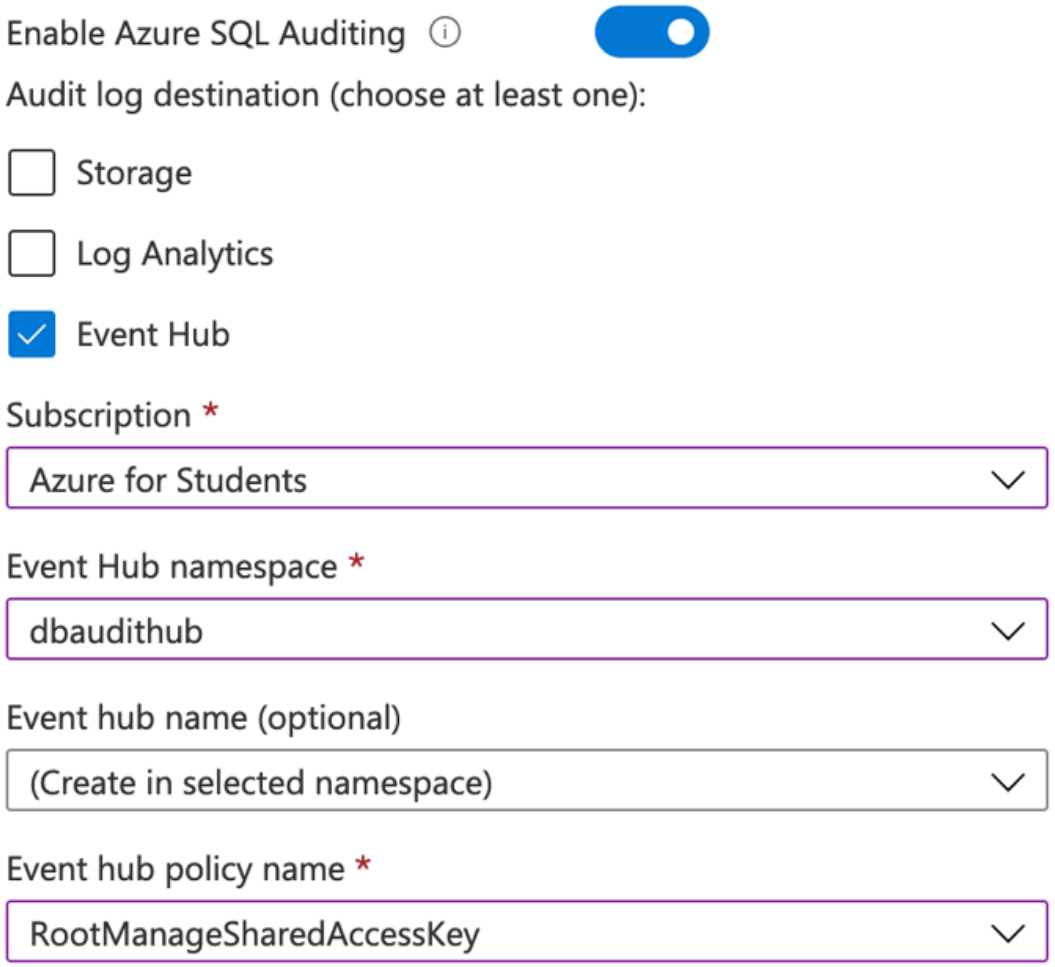


VIEW LOG ANALYTICS AUDIT DATA

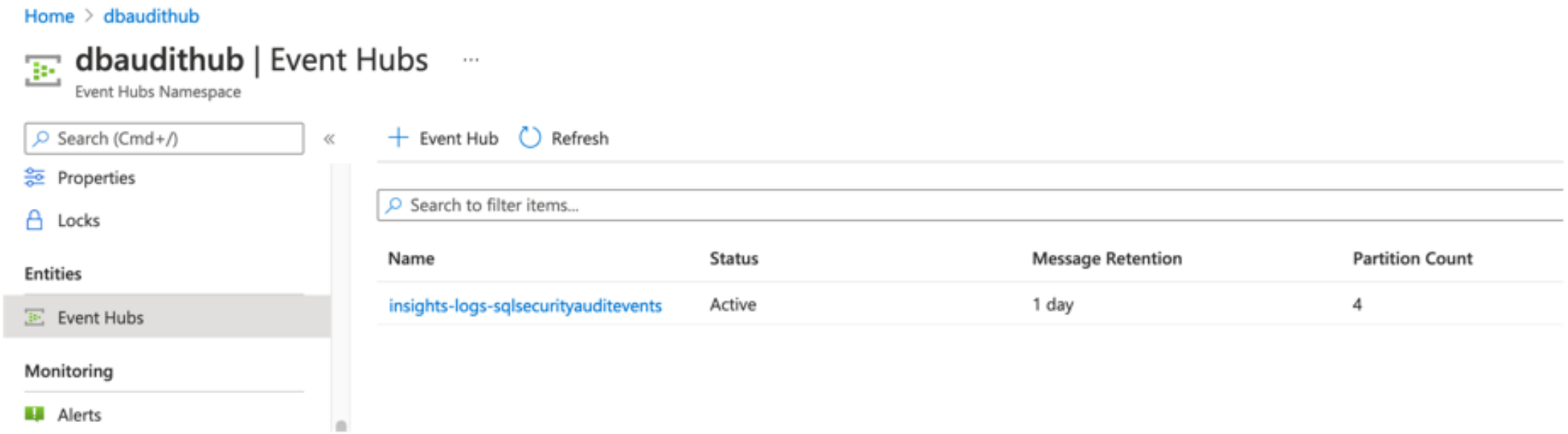
atabase level



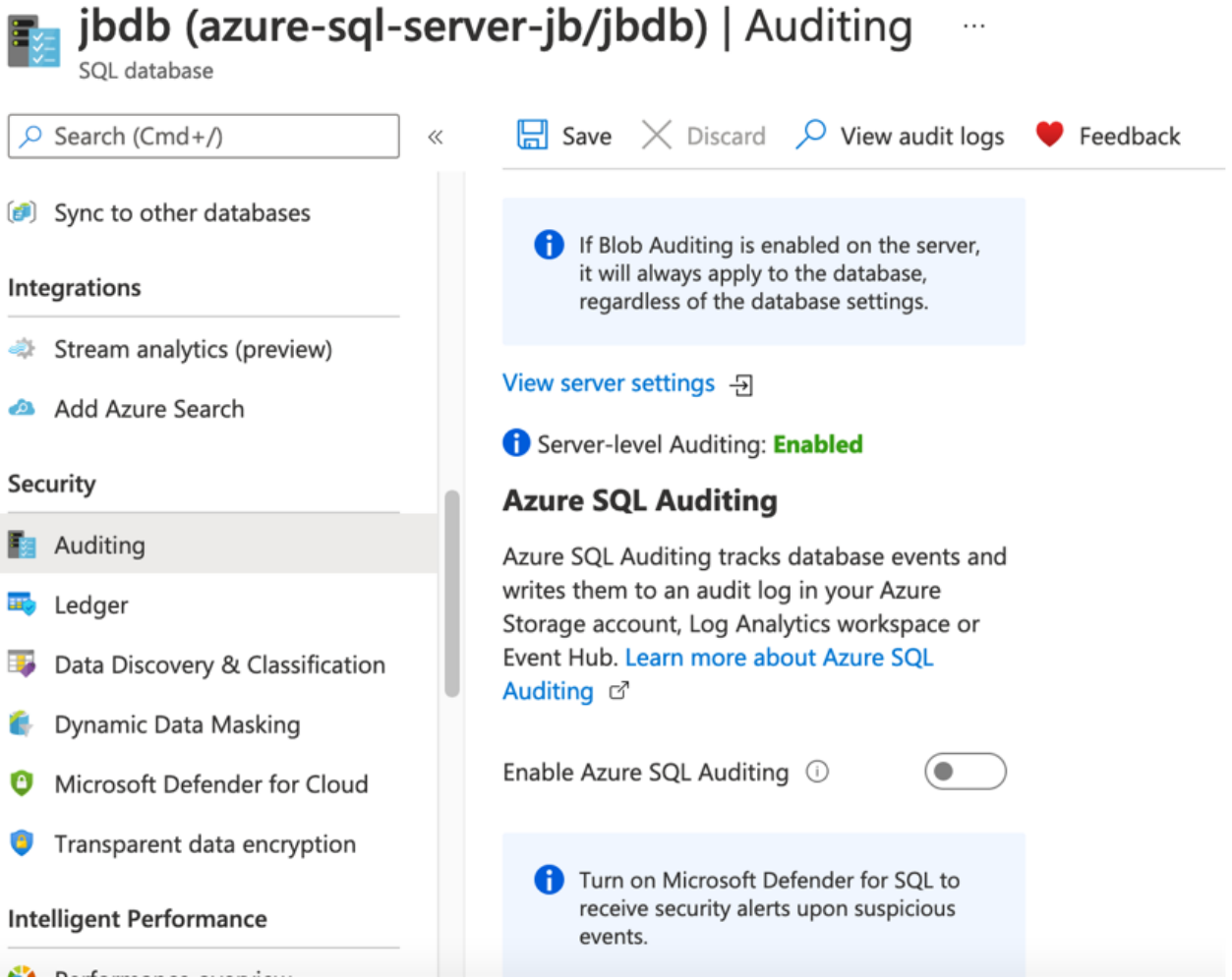
AZURE SQL AUDITING EVENT HUB



AZURE SQL AUDITING EVENT HUB DATA



ENABLING AZURE SQL AUDITING



Enabling at database level instead of server level to audit only one database

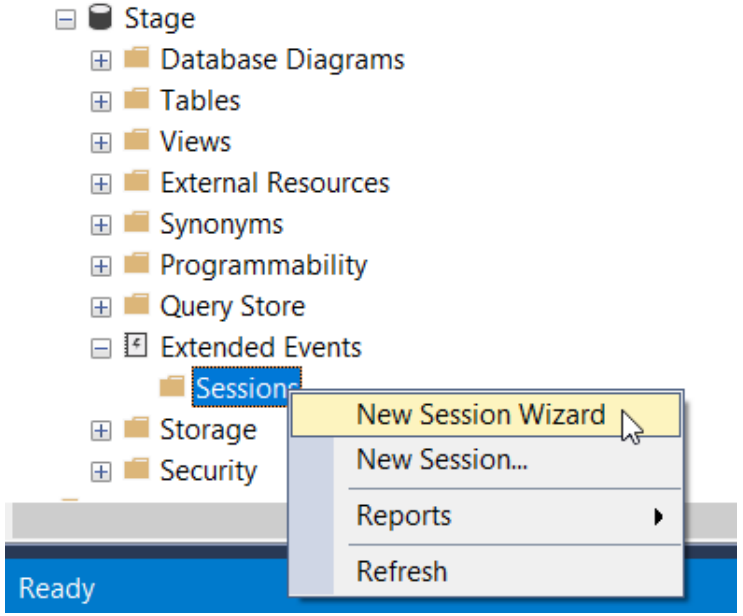
Don’t do this if you already enabled at server level

AZURE SQL AUDITING EXTENDED EVENTS

Script

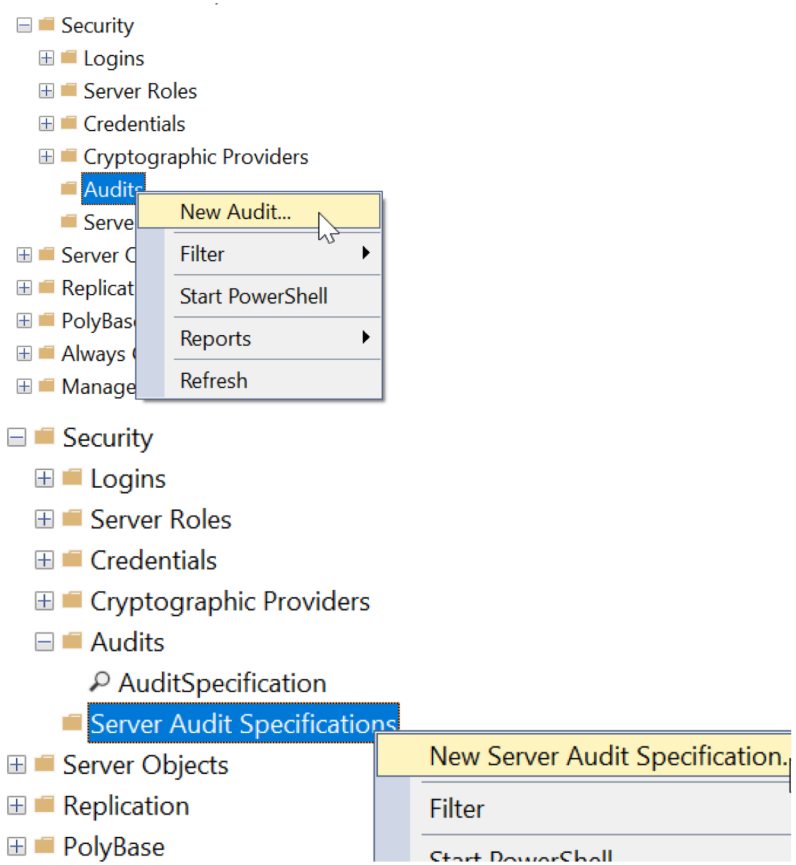
```
CREATE EVENT SESSION [audit] ON DATABASE
ADD EVENT sqlserver.rpc_completed(
ACTION(sqlserver.client_app_name,sqlserver.client_hostna
me,sqlserver.database_name,sqlserver.sql_text,sqlserver.
username)
    WHERE ([sqlserver].[username]=N'josephine')),
ADD EVENT sqlserver.sql_batch_completed(
ACTION(sqlserver.client_app_name,sqlserver.client_hostna
me,sqlserver.database_name,sqlserver.sql_text,sqlserver.
username)
    WHERE ([sqlserver].[username]=N'josephine'))
ADD TARGET package0.event_file(SET
filename=N'https://StorageAccount.blob.core.windows.net/
Container/audit.xel')
WITH (STARTUP_STATE=ON)
```

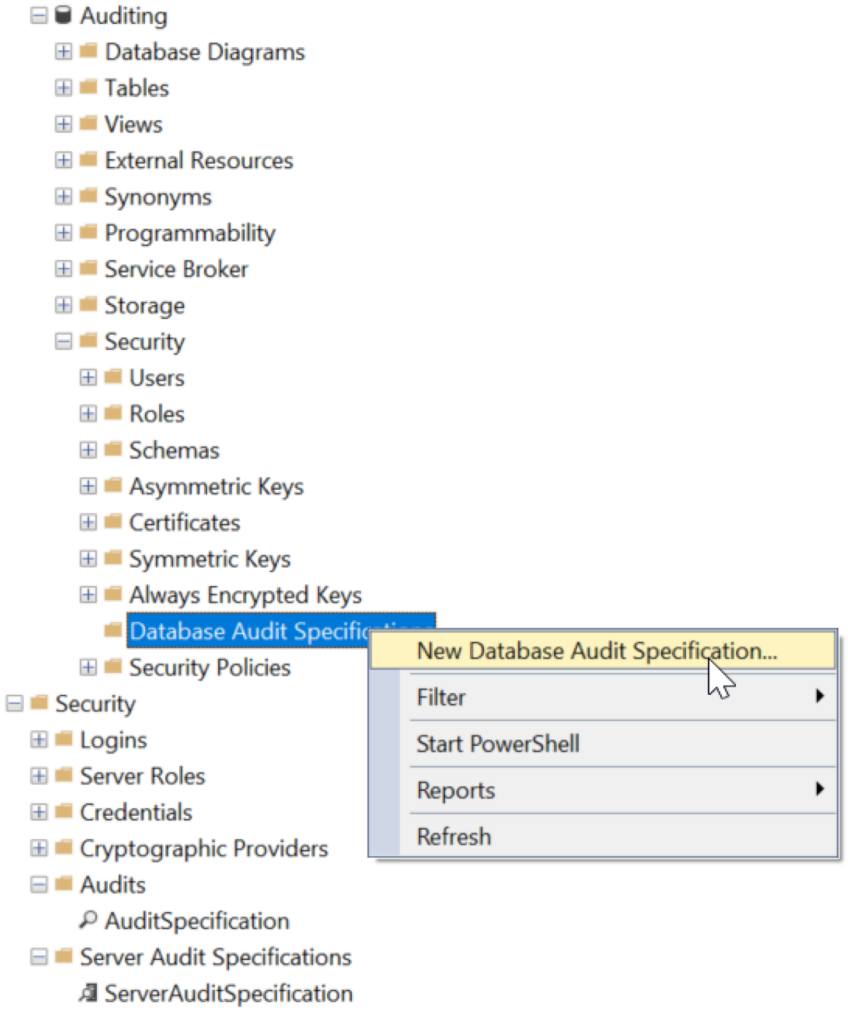
GUI



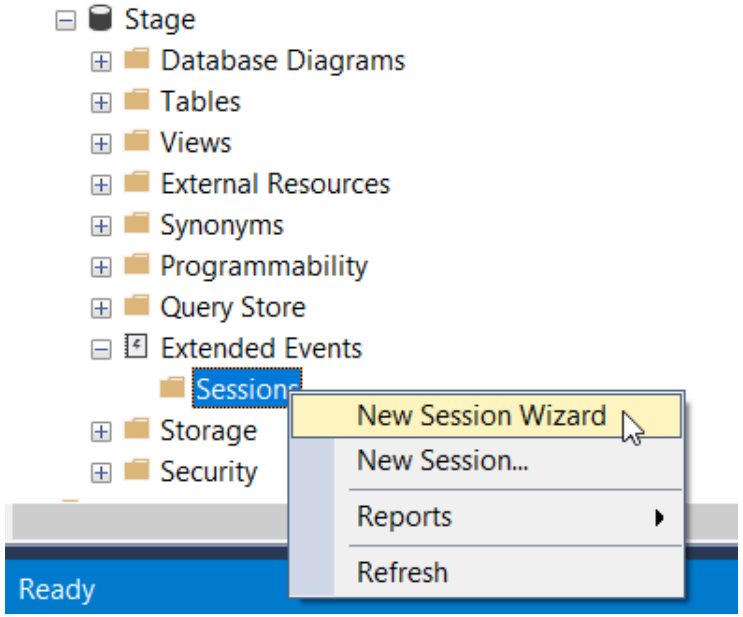
MANAGED INSTANCE AUDITING

SQL Server Audit





Extended Events



RESOURCES

Azure SQL Audit Overview

https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview

Azure SQL Extended Events

https://docs.microsoft.com/en-us/azure/azure-sql/database/xevent-db-diff-from-svr

Azure SQL Managed Instance Auditing

https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/auditing-configure

AWS RDS Auditing

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Appendix.SQLServer.Options.Audit.html

https://aws.amazon.com/blogs/database/set-up-extended-events-in-amazon-rds-for-sql-server/

THANK YOU FOR ATTENDING

Contact me @hellosqlkitty

or visit me at sqlkitty.com