

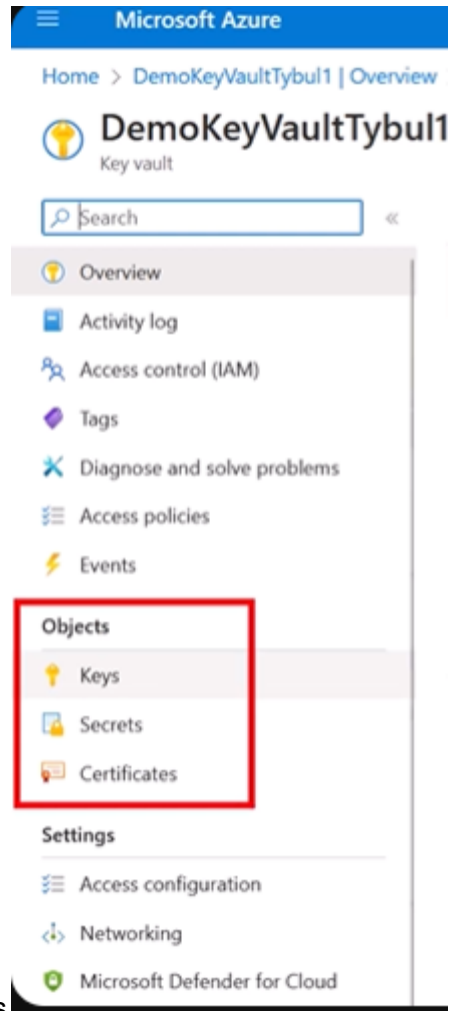
Azure Key Vault

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- A hand-drawn diagram illustrating the relationship between AOLS and ADF. On the left is a cylinder labeled "AOLS g2". On the right is a jagged, sawtooth-like shape labeled "ADF". A horizontal double-headed arrow connects the two shapes, with the words "ACCESS" and "KEY" written above and below the arrow respectively.

2. Also in JSON code of Linked service..we can see our access key



3. What if we have 5 ADF pipelines using the same account key(manual key entry) to access the ADLSg2? Then if we rotate the keys..then we have to revisit and reassign keys
4. Azure Key vault
5. In every Azure project key vault will be used...it is a place which stores keys in secure way



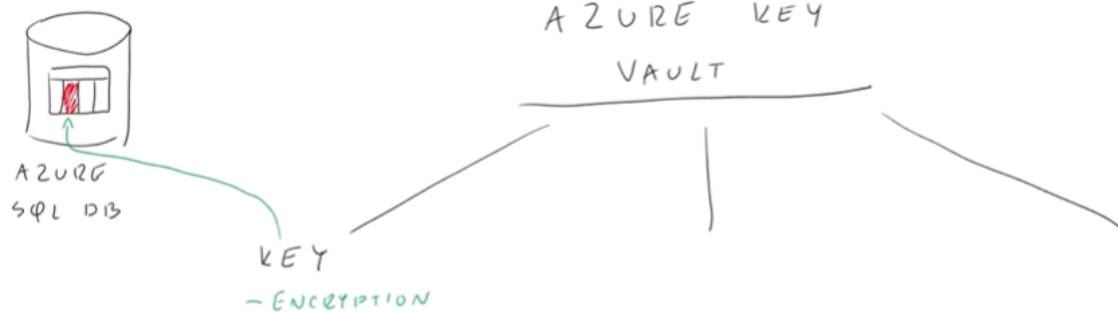
6. It store 3 kind of objects..1st are encryption keys



Suppose we have a Azure SQL DB and it has table which carries sensitive data



here we can encrypt this col using of Azure Keys

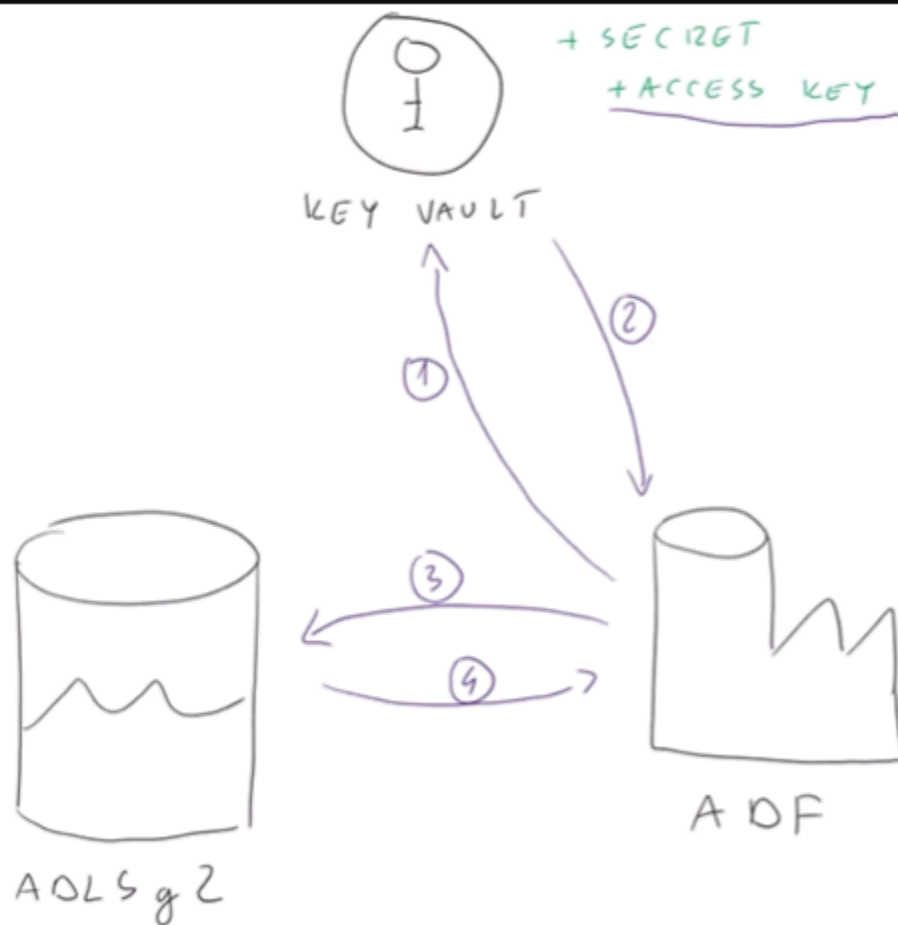


7. 2nd are certificates...we can secure certificates like SSL/TLS
8. 3rd the most common use case..is to store the secrets,,,like strings



9. And when ever we create a key vault...it is created in 2 instances...just in case if 1st instance fails in worst case...we can make use of 2nd instance key vault...2nd instance would be only read mode
10. Next we have created a key vault

11. Inside the key vault...we add a secret of access key



12. Then ADF will get keys from key vault...and then it connects to the ADLSg2 and can ingest data or whatever

13. Practical

14. Inside the key vault...we store the secret...by giving a name and value

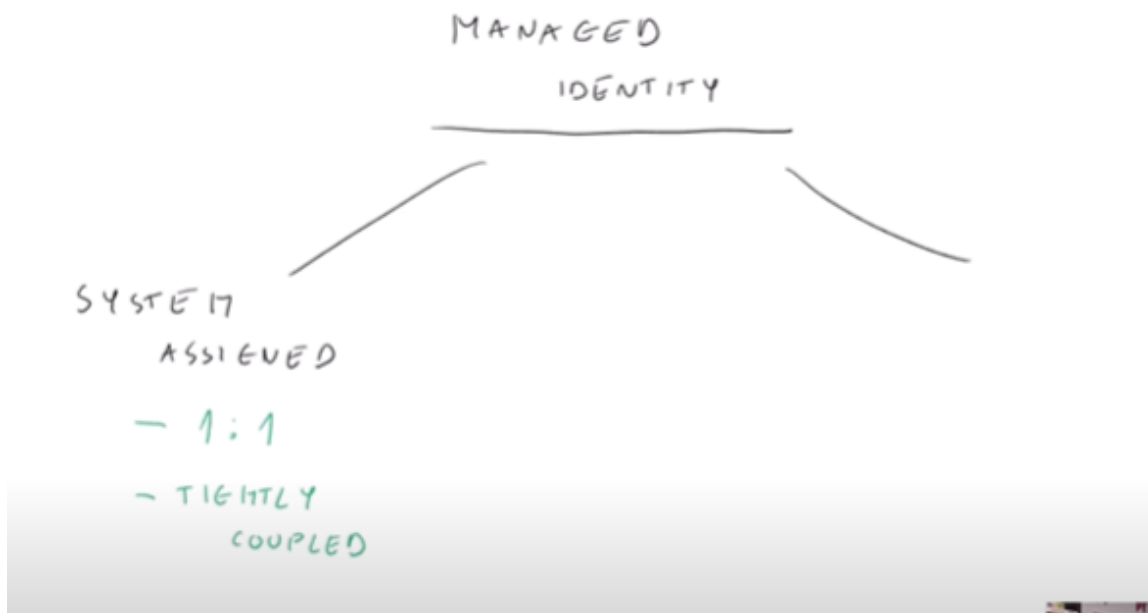
A screenshot of the Microsoft Azure portal showing the 'Create a secret' form for a Key Vault named 'DemoKeyVaultTybul1'. The form includes fields for 'Name' (Data-Lake-Access-Key), 'Secret value' (masked with asterisks), 'Content type (optional)', 'Set activation date', 'Set expiration date', 'Enabled' (Yes/No), and 'Tags'. The video player interface at the bottom shows the video is at 19:41 / 47:47, titled 'Azure Key Vault', and includes a small video feed of the presenter.

3: 18 - Azure Data lake
e Key Vault

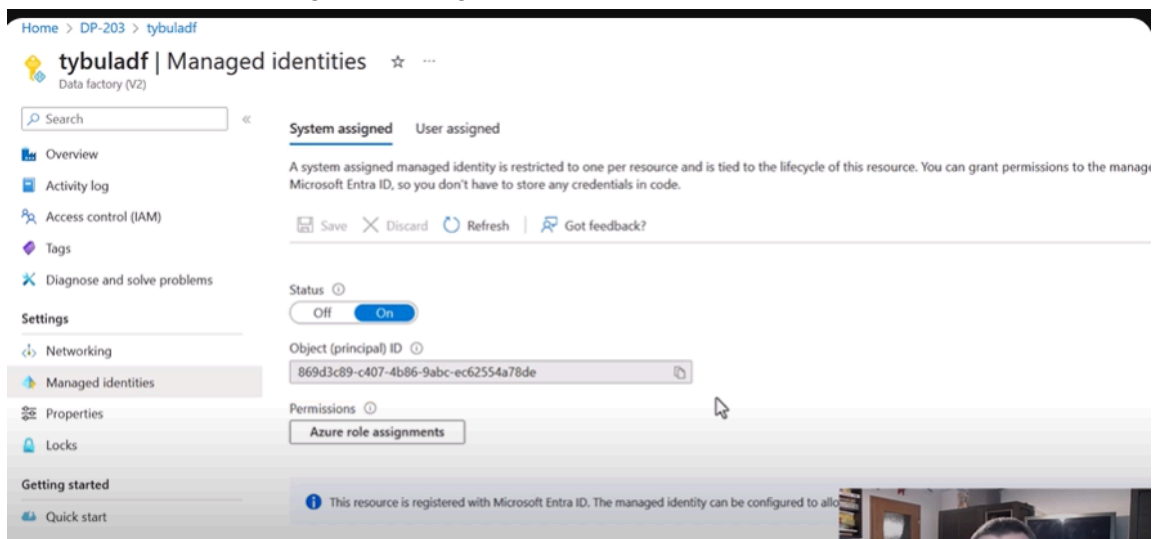
15. Next we store this secret

Managed Identity

1. Now how ADF connects to the key vault? using managed identity
2. We can use this to grant access to the key vault
3. We have two types system assigned and user assigned

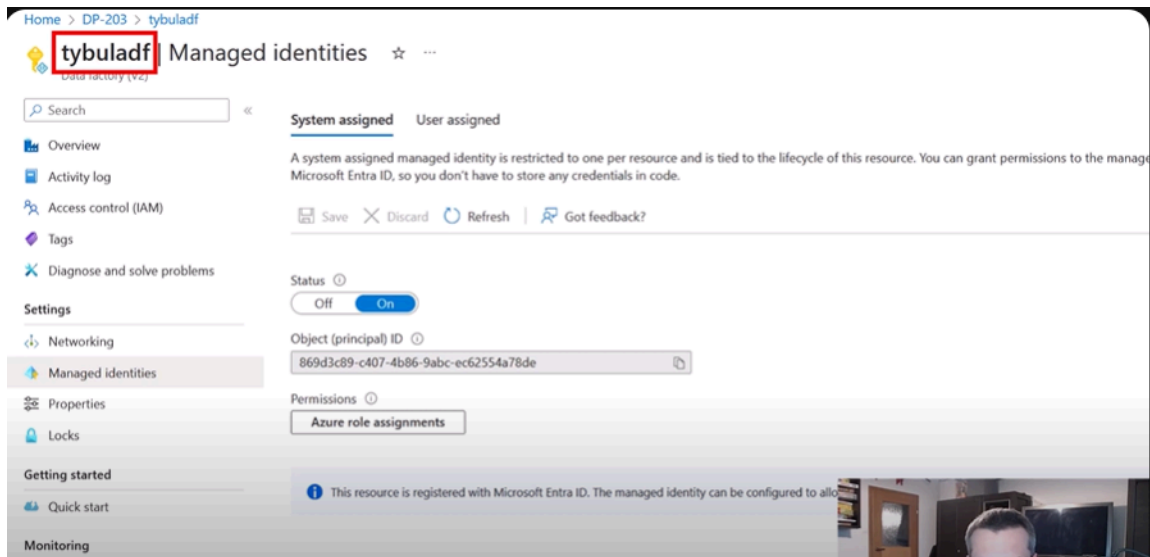


4. Practical
5. Here in our ADF ..if we go to managed identities..



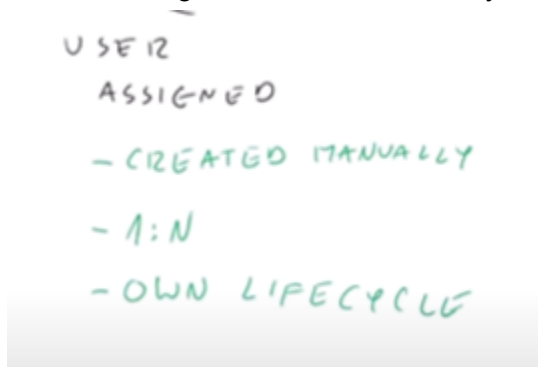
then we have system assigned identity status on

6. This identity can be accessed using



object key or ADF name

7. In USER assigned...we create identity manually and assign them to a resource

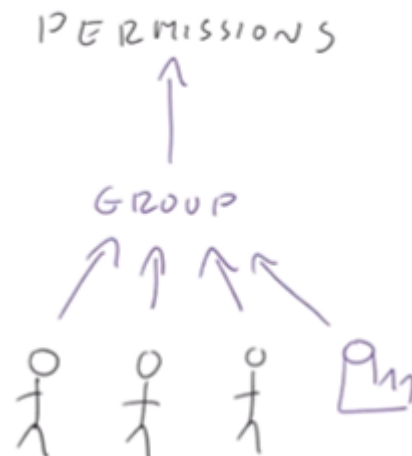


8. We can reuse same identity for multiple services...
9. Here even if we delete the service that is using this identity ...this identity will not get deleted...as diff service may be using this
10. Now for our usecase we'll be using system assigned identities
11. Practical

12. Inside our keyvault...we create new access policies and select get and list

Key permissions	Secret permissions	Certificate permissions
Key Management Operations <input type="checkbox"/> Select all <input type="checkbox"/> Get <input type="checkbox"/> List <input type="checkbox"/> Update <input type="checkbox"/> Create <input type="checkbox"/> Import <input type="checkbox"/> Delete <input type="checkbox"/> Recover <input type="checkbox"/> Backup <input type="checkbox"/> Restore	Secret Management Operations <input type="checkbox"/> Select all <input checked="" type="checkbox"/> Get <input checked="" type="checkbox"/> List <input type="checkbox"/> Set <input type="checkbox"/> Delete <input type="checkbox"/> Recover <input type="checkbox"/> Backup <input type="checkbox"/> Restore Privileged Secret Operations <input type="checkbox"/> Select all <input type="checkbox"/> Purge	Certificate Management Operations <input type="checkbox"/> Select all <input type="checkbox"/> Get <input type="checkbox"/> List <input type="checkbox"/> Update <input type="checkbox"/> Create <input type="checkbox"/> Import <input type="checkbox"/> Delete <input type="checkbox"/> Recover <input type="checkbox"/> Backup <input type="checkbox"/> Restore <input type="checkbox"/> Manage Contacts <input type="checkbox"/> Manage Certificate Authorities <input type="checkbox"/> Get Certificate Authorities <input type="checkbox"/> List Certificate Authorities <input type="checkbox"/> Set Certificate Authorities <input type="checkbox"/> Delete Certificate Authorities Privileged Certificate Operations <input type="checkbox"/> Select all

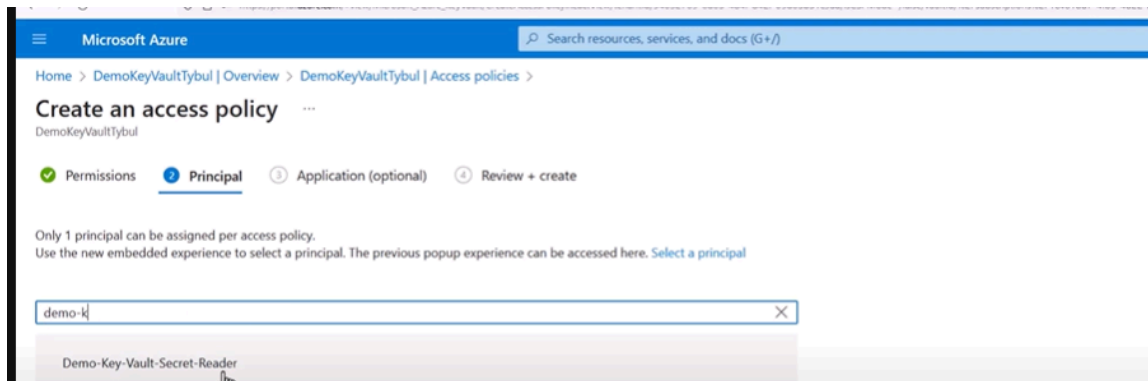
13. Next we need to assign



14. We assign this policy to the group...

15. Next we create a new group and add users,ADF

16. Here we have assigned policy to the group



17. And create this access policy

18. Now inside the Linked service...refer video for practical