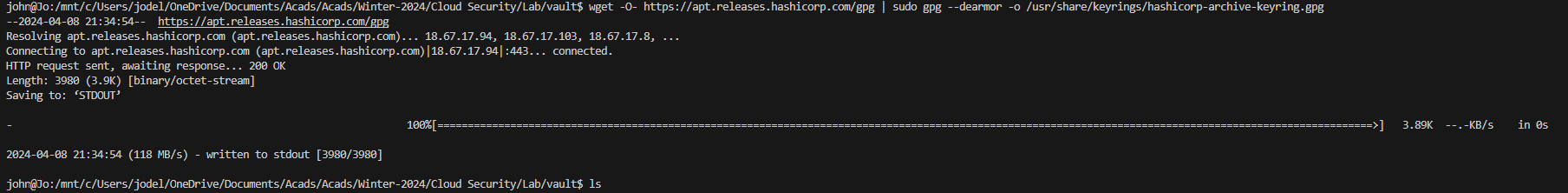
1. Update the package manager and install GPG and wget.

sudo apt update && sudo apt install gpg wget

2. Download the keyring.

wget -O- https://apt.releases.hashicorp.com/gpg | sudo gpg --dearmor -o /usr/share/keyrings/hashicorp-archive-keyring.gpg



3. Verify the keyring.

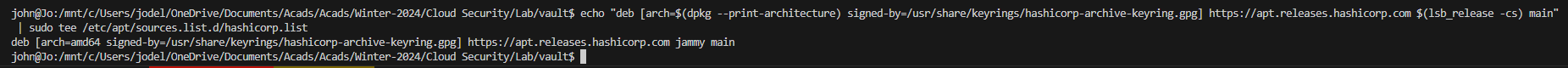
gpg --no-default-keyring --keyring /usr/share/keyrings/hashicorp-archive-keyring.gpg –fingerprint

A black screen with white text

Description automatically generated

4. Add the HashiCorp repository.

echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb\_release -cs) main" | sudo tee /etc/apt/sources.list.d/hashicorp.list



5. Install Vault.

sudo apt update && sudo apt install vault

6. Verifying the Installation

vault

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7. Start Vault: This is used to start the Vault server.

vault server -dev -dev-listen-address="0.0.0.0:8200"

A screen shot of a computer program

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8. Enable kv Secret Engine and Create Vault

vault secrets enable -path=secret kv

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9. Enable AppRole Authentication

vault auth enable approle

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10. Create a Policy

vault policy write terraform - <<EOF

path "secret/data/\*" {

capabilities = ["create", "read", "update", "delete", "list"]

}

EOF

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Description automatically generated

11. Create an AppRole

vault write auth/approle/role/terraform \

secret\_id\_ttl=10m \

token\_num\_uses=10 \

token\_ttl=20m \

token\_max\_ttl=30m \

secret\_id\_num\_uses=40 \

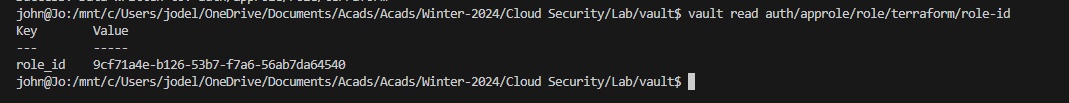
token\_policies=terraform

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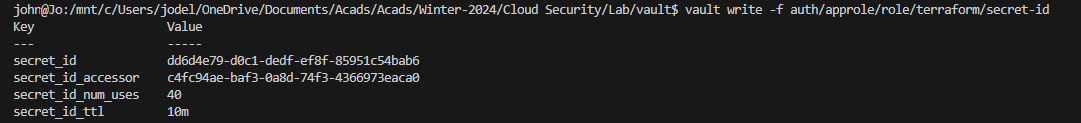
12. Generate Role ID

vault read auth/approle/role/terraform/role-id



13. Generate Secret ID

vault write -f auth/approle/role/terraform/secret-id



14. Terraform Configuration files:  
main.tf

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Vars.tf

A screenshot of a computer program

Description automatically generated

15. terraform init

A screenshot of a computer program

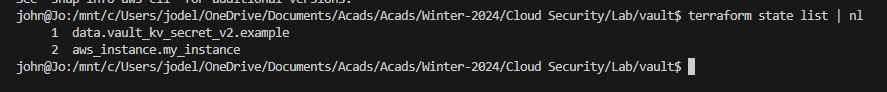
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16. terraform apply

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17. terraform state list | nl



AWS Console Management:

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