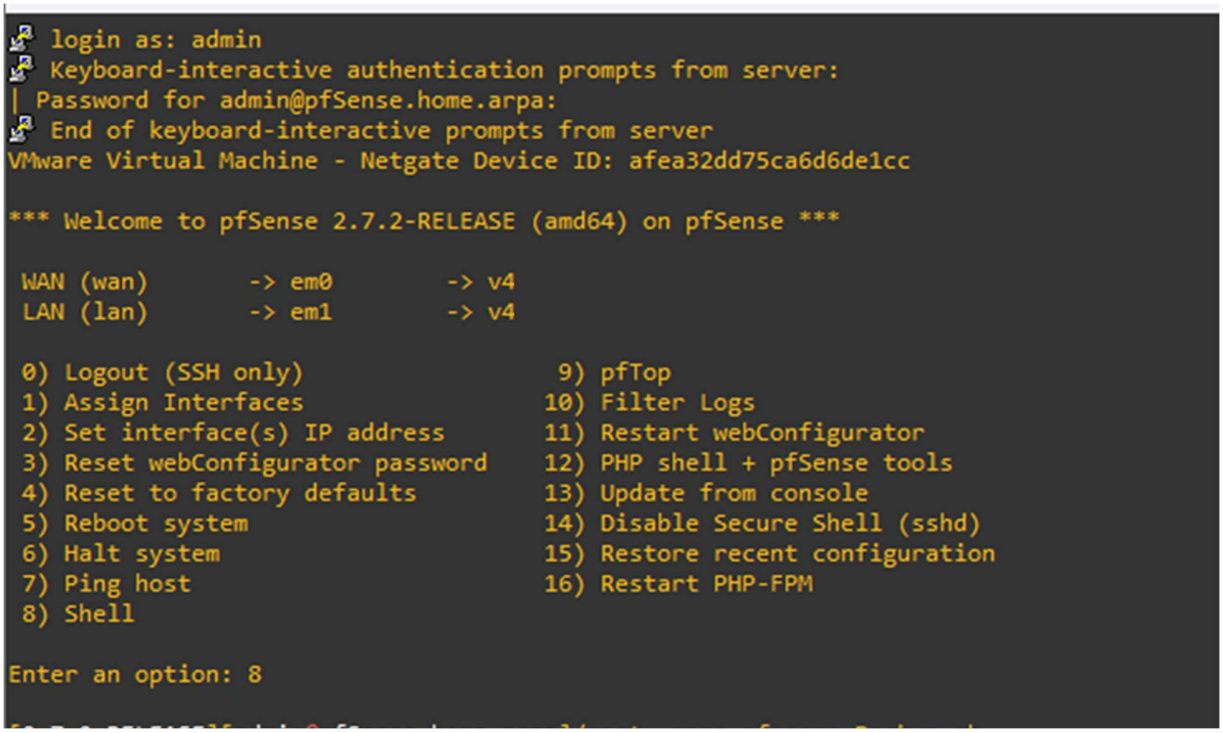
Steps for automatically saving pfsense configuration backups to google drive

Step 1: Install Cron in pfsense

System > Package Manger > Intsall packages > cron

Step 2: Open Shell in pfsense



Step 3: Install rclone manually

- **In shell type this command to download rclone:**

fetch https://downloads.rclone.org/rclone-current-freebsd-amd64.zip

- **Unzip the downloaded file:**

unzip rclone-current-freebsd-amd64.zip

- **Move the binary to /usr/local/bin/ so it can be used system-wide:**

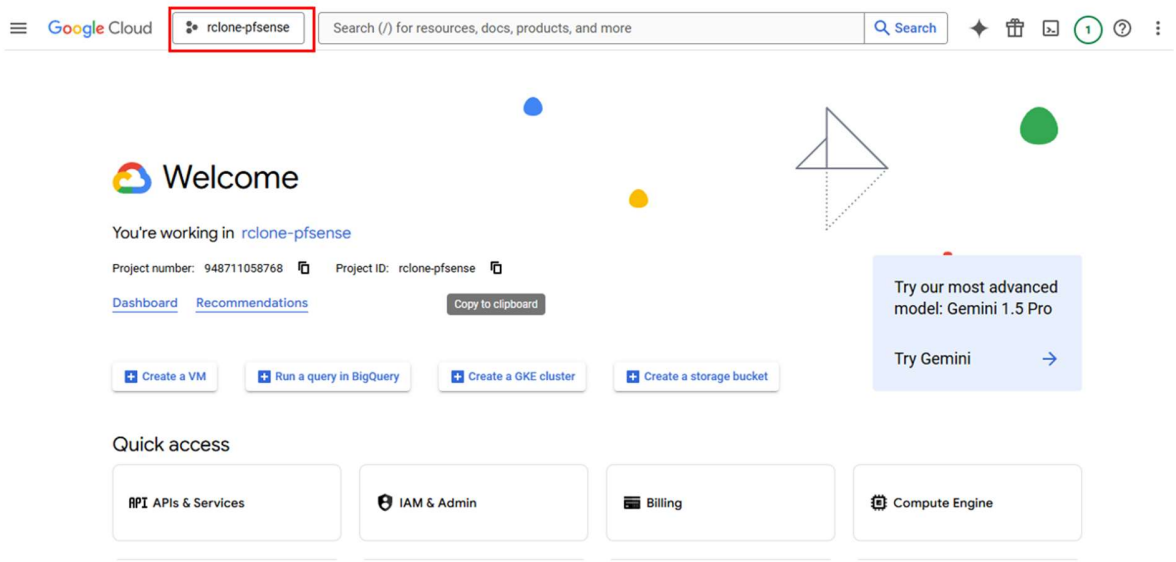
mv rclone-/rclone /usr/local/bin/*
chmod +x /usr/local/bin/rclone

- **Verify installation:**

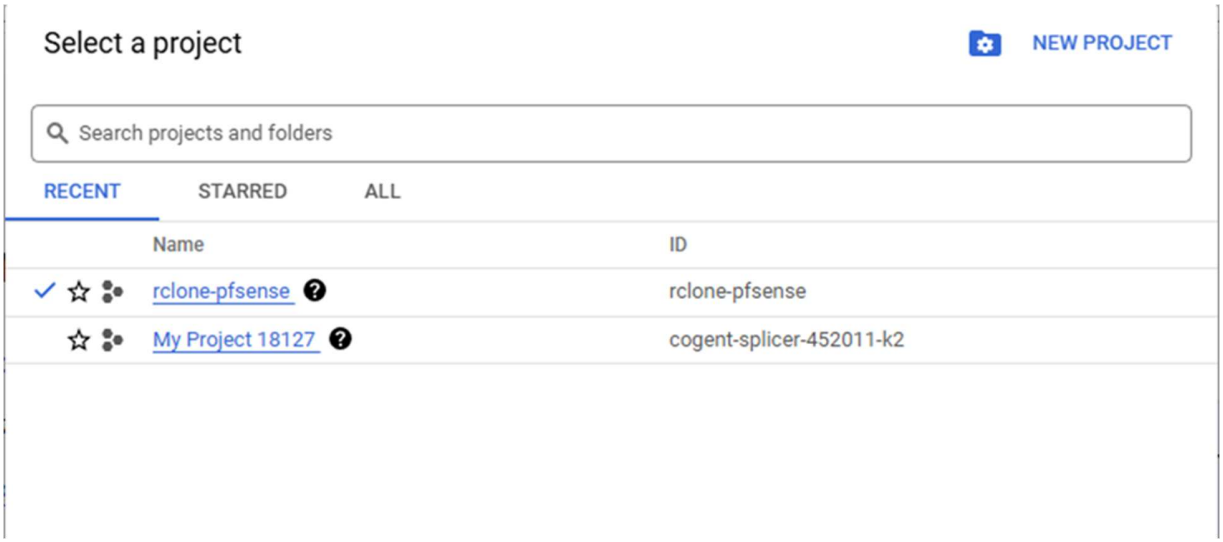
rclone version

Step 4: Google drive setup

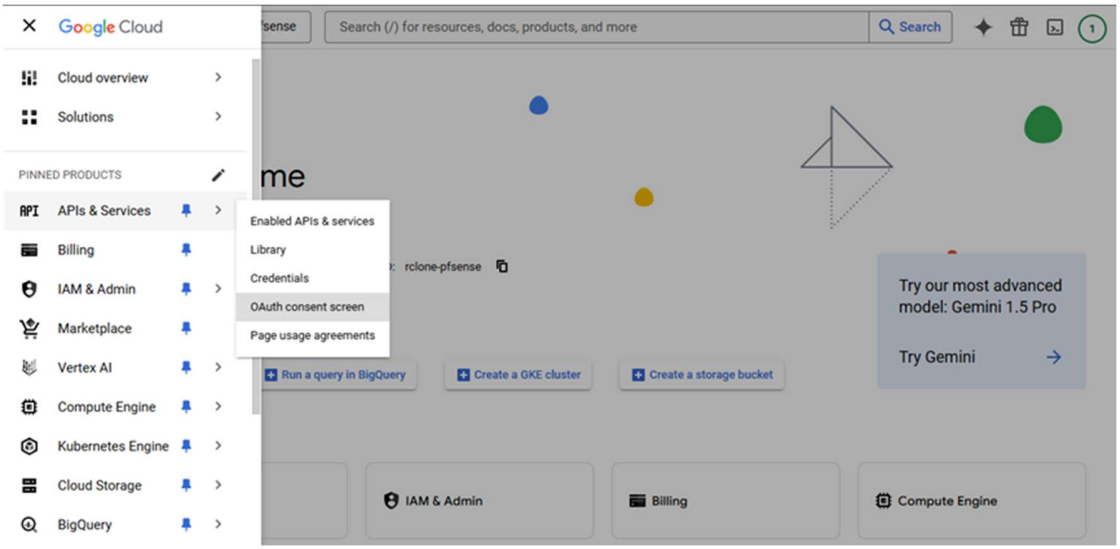
- Navigate to google cloud console



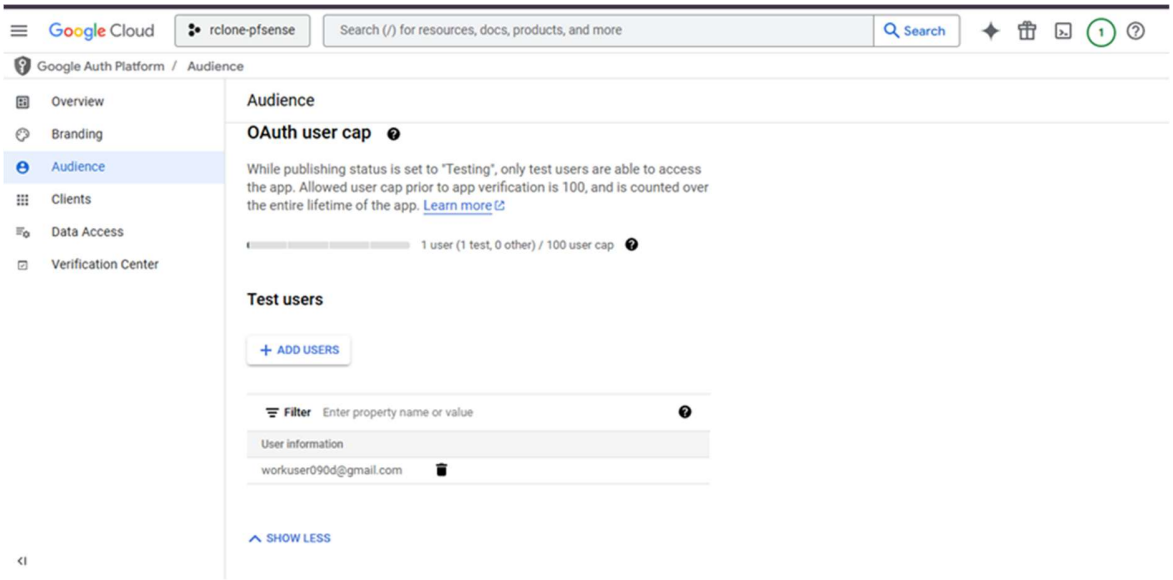
- Go to pojects > new project
- Create a new project



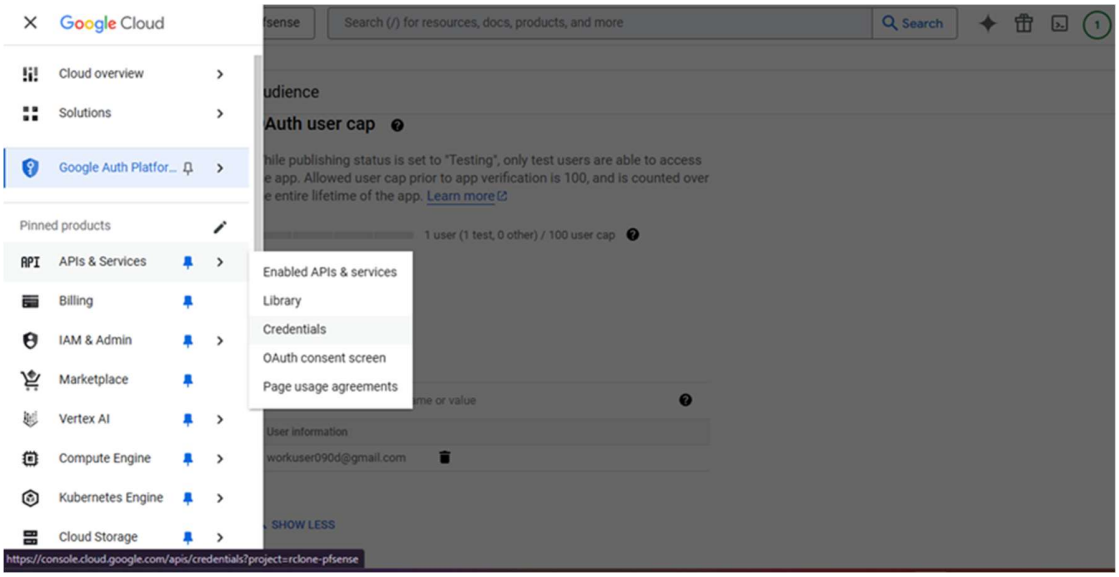
- Then in the navigation menu go to APIs and service > OAuth consent screen



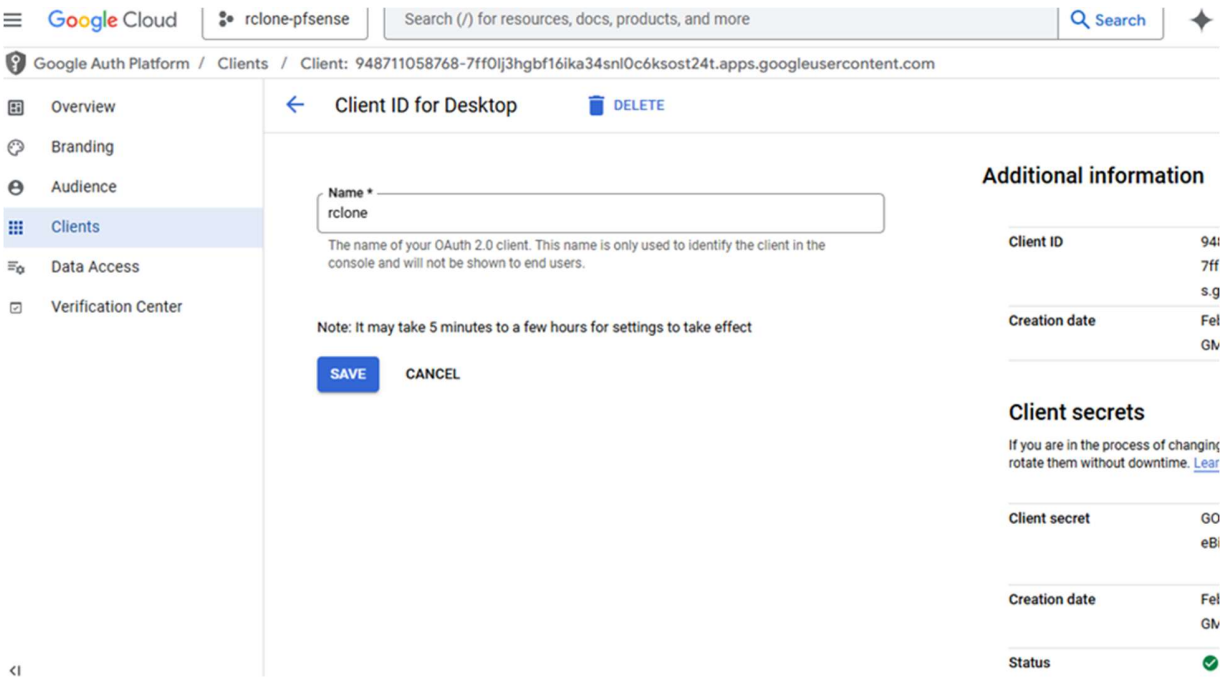
- Go to audience and add your user account



- Now navigate to api’s and services > credentials



- And copy your client id and client secret



- Copy the client id and client secret

Step 5: Configure rclone for Google Drive

- **Run the following command to start rclone setup:**

rclone config

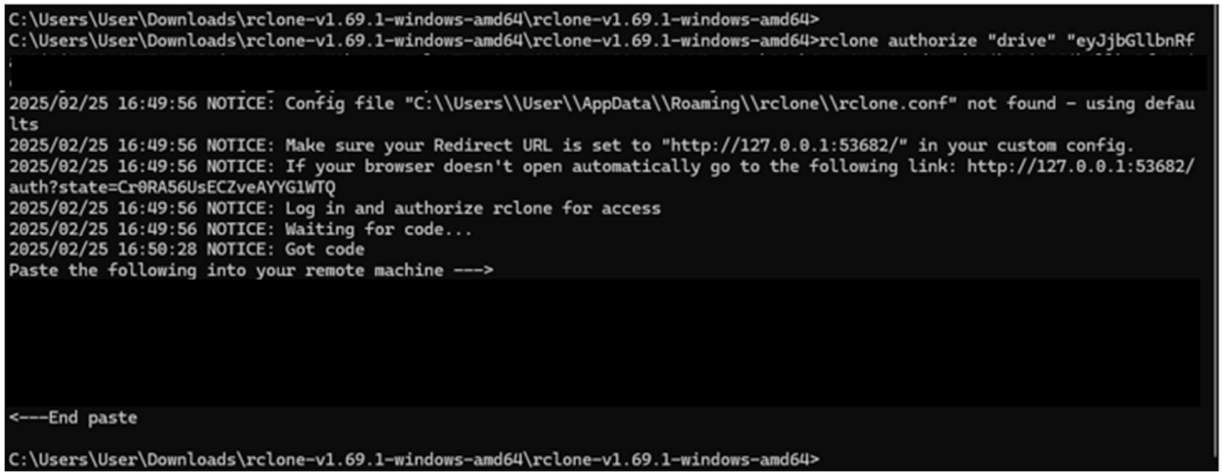
- **Type n and press Enter to create a new remote.**
- E**nter a name** for the remote (e.g., gdrive).
- **Choose the storage type**: Type 20 (Google Drive) and press **Enter**.
- **Client ID & Client Secret**: paste it here
- **Scope selection**: Type 1 (Full access) and press **Enter**.
- **Root Folder ID**: Press **Enter** to leave blank.
- **Service Account**: Press **Enter** to leave blank.
- **Advanced Config**: Type n and press **Enter**.
- **Auto Config?**
    - Type n and press **Enter**.
    - A URL will appear copy it

```
Name                 Type
====                 ====
gdrive               drive

e) Edit existing remote
n) New remote
d) Delete remote
r) Rename remote
c) Copy remote
s) Set configuration password
q) Quit config
e/n/d/r/c/s/q> e

Select remote.
Choose a number from below, or type in an existing value.
 1 > gdrive
remote> 1

Editing existing "gdrive" remote with options:
- type: drive
- client_id: [redacted]
- client_secret: [redacted]
- scope: drive
- team_drive:

Option client_id.
Google Application Client Id
Setting your own is recommended.
See https://rclone.org/drive/#making-your-own-client-id for how to create your own.
If you leave this blank, it will use an internal key which is low performance.
Enter a value of type string. Press Enter for the default [redacted]
client_id>

Option client_secret.
OAuth Client Secret.
Leave blank normally.
Enter a value of type string. Press Enter for the default [redacted]
hsbAJx_).
client_secret>

Option scope.
Comma separated list of scopes that rclone should use when requesting access from drive
```

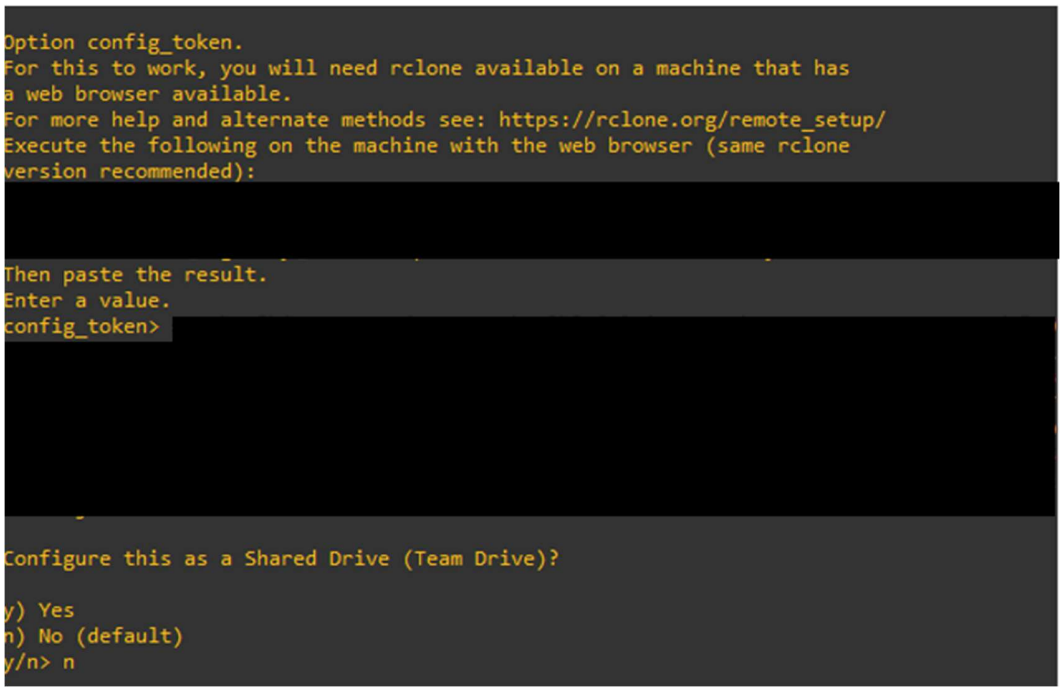
```
Option config_token.
For this to work, you will need rclone available on a machine that has
a web browser available.
For more help and alternate methods see: https://rclone.org/remote_setup/
Execute the following on the machine with the web browser (same rclone
version recommended):
[redacted]
```

Step 6: Config token

- Download rclone from rclone.org/downloads in your host machine
- A zip file will download. Unzip the file.
- Inside the folder type cmd in the folder's path
- Command prompt will open paste the url in it
- It will automatically open the sign in page in the browser
- Login in into you account (you will get a success message)
- In the command prompt you will find the client token. Copy it



- Paste the token in the pfsense console



- **After setup, list your remotes to confirm:**

rclone listremotes

- **You should see:**

gdrive:

Step 7: Create the Backup Script in /root/

- **Navigate to root directory:**

cd /root/

- **Create and edit the script using nano:**

nano /root/backup_pfsense.sh

- **Copy and paste the script inside the file:**

#!/bin/sh

Set backup directory and filename

BACKUP_DIR="/root/pfsense_backups"

BACKUP_FILE="config-$(date +%F-%H%M).xml"

RCLONE_REMOTE="gdrive:pfsense_backups"

Create backup directory if it doesn't exist

mkdir -p "$BACKUP_DIR"

Copy pfSense configuration

cp /cf/conf/config.xml "$BACKUP_DIR/$BACKUP_FILE"

Upload backup to Google Drive

rclone copy "$BACKUP_DIR/$BACKUP_FILE" "$RCLONE_REMOTE"

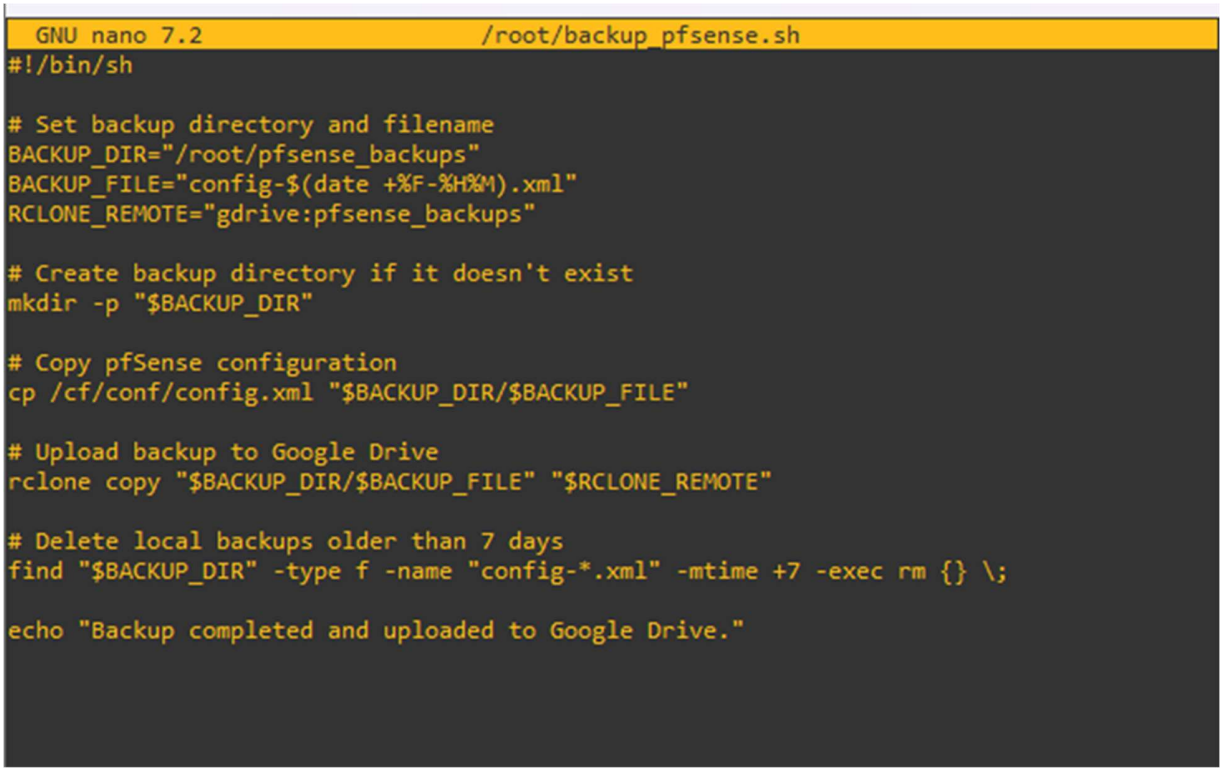
Delete local backups older than 7 days

find "$BACKUP_DIR" -type f -name "config-*.xml" -mtime +7 -exec rm {} \;

echo "Backup completed and uploaded to Google Drive."

- **Save and exit:**

Press CTRL + X, then Y, then Enter.



- **Make the Script Executable**

chmod +x /root/backup_pfsense.sh

- **Test the Script**

/root/backup_pfsense.sh

Check if the backup is uploaded to Google Drive.

Step 8: Automate the Backup with Cron

- **Open the cron job editor:**

crontab -e

- **Add this line at the end to run the backup every night at midnight:**

0 0 * * * /root/backup_pfsense.sh >> /root/backup.log 2>&1

- **Save and exit.**

Press Esc then :wq to save and exit

- **Verify the Scheduled Job**

crontab -l

You should see:

0 0 * * * /root/backup_pfsense.sh >> /root/backup.log 2>&1

Now, pfSense will automatically back up the configuration to Google Drive every night at 12:00 AM.