Setup YouTube Downloader Web Server -source code / Build Your Own

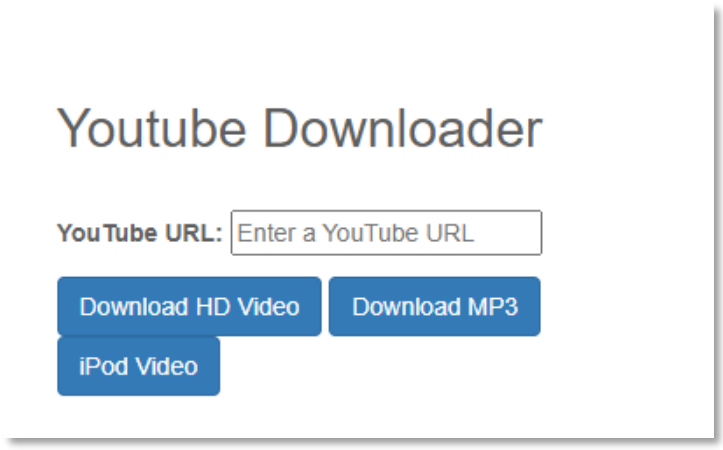
Contents

Introduction

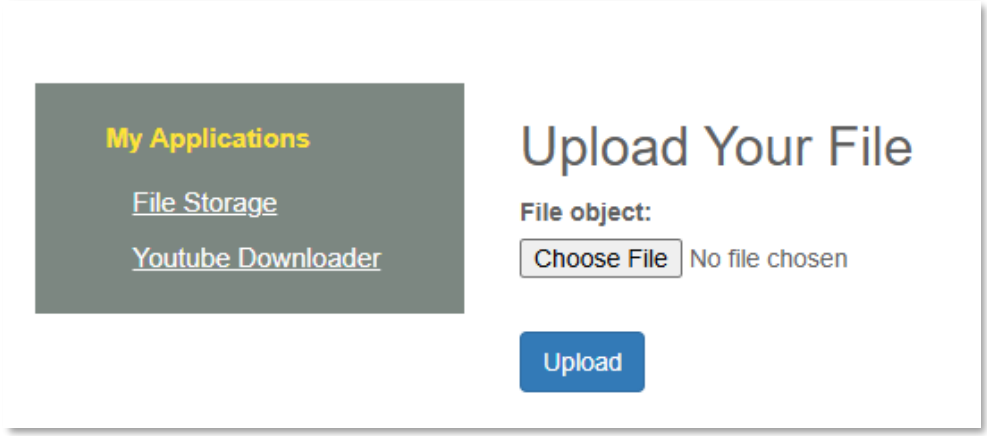
This is an open-source web app mainly for downloading your favour YouTube video without using the public ones which contains a lot annoying Ads fake downloads

It can download 1080 HD video and 480p format for older generation iPods.

It can also just download the audio into MP3 format



In addition, it has a simple online storage tool that allows you to upload / download your files from your phone, computer and share them in between devices. Your files will just be saved to your own server without paying 3rd party subscription and safe.



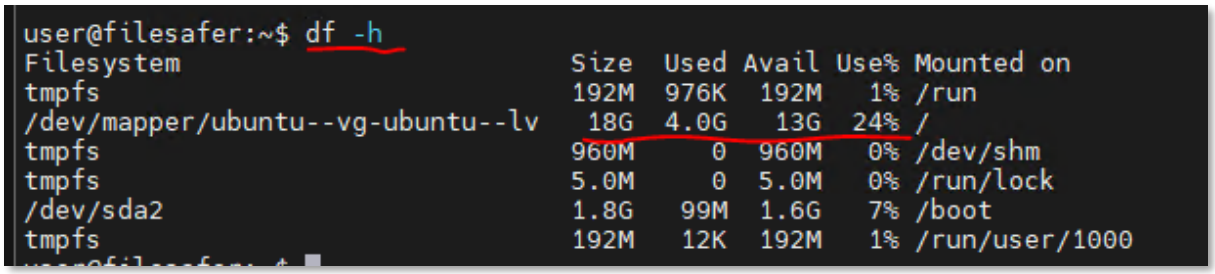
Install the server

We are using Ubuntu server VM or Raspberry Pi OS and just need to enable SSH with full access

- Ubuntu server 24.04.01 (minimal footprint install / 2 CPU / 2G RAM / 20Gb Disk)
    - If the system running on VM. Make sure all disk space has been used.

      sudo lvextend -l +100%FREE /dev/ubuntu-vg/ubuntu-lv

      sudo resize2fs /dev/mapper/ubuntu--vg-ubuntu—lv



- Raspberry Pi 4b (2G RAM / 16Gb Micro SD)
    - Install Raspberry Pi OS Lite (no Desktop needed)

Install Django Framework and necessary Apps

sudo apt-get update

sudo apt-get install ffmpeg

sudo apt-get install python3-django python3-pip python3-venv

- If you are using Ubuntu server 20.04 with minimal footprint installation

    sudo apt-get install nano cron iputils-ping

    sudo nano /etc/resolv.conf

    add line: **nameserver 8.8.8.8**

Create virtual environment and install Django

cd /

sudo mkdir Automation

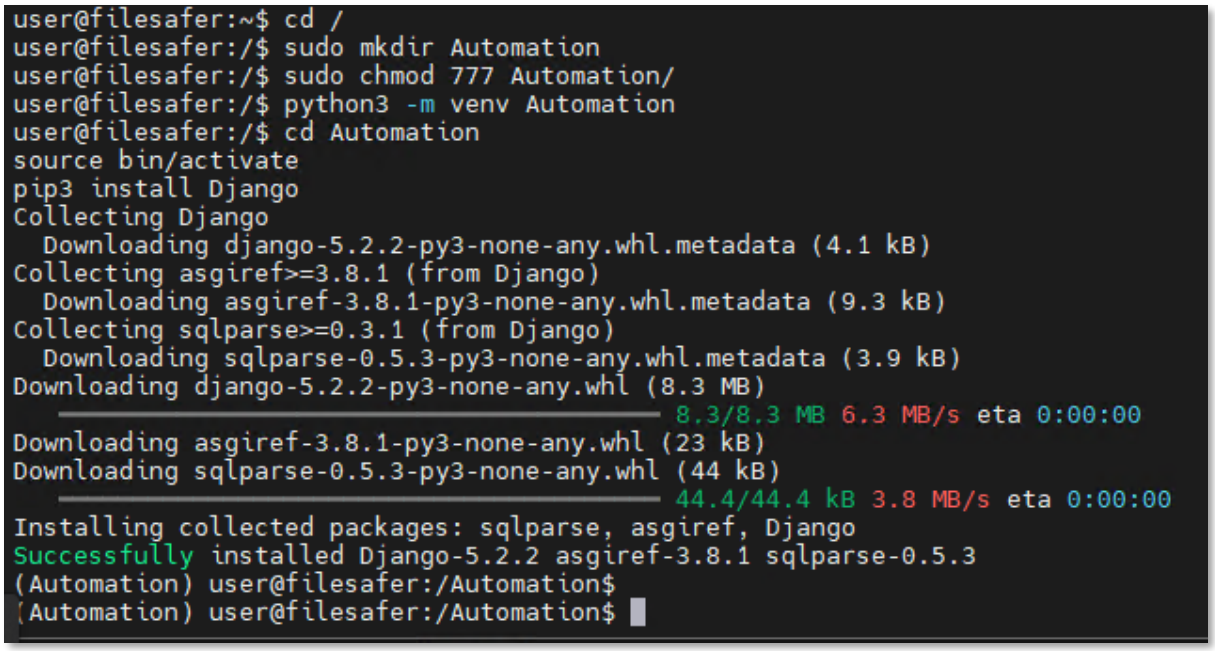
sudo chmod 777 Automation

python3 -m venv Automation

cd Automation

source bin/activate

pip3 install Django



Create web applications and install dependent libraries

- Perform below commands under directory /Automation within the virtual environment

  django-admin startproject Downloader .

  python3 manage.py startapp Login

  python3 manage.py startapp Efile

  python3 manage.py startapp Youtube_downloader

  pip3 install ipcalc six yt_dlp django-sslserver

- Above process creates below folder structure

  Downloader

  Youtube_downloader

  Efile

  Login

  Youtube_downloader

Copy the source code files and install

We will use sftp to cory the source files into created directories from above

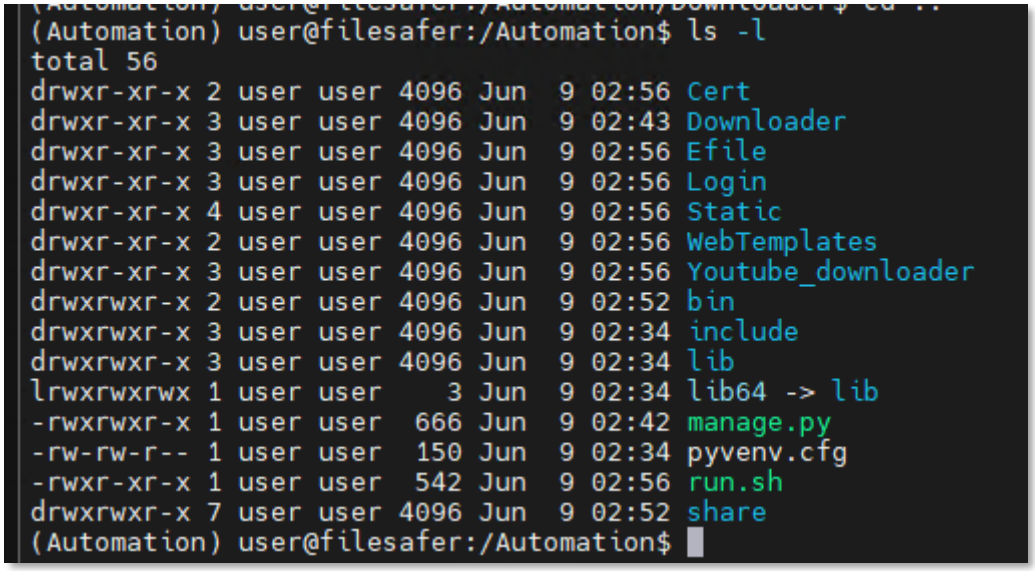
If you are using windows computer you can use MoxaXterm free application to do this. Linux user can perform this task natively using Terminal.

- Start from the directory where you have downloaded source files. SFTP to the server

  cd /Automation

  put -R *

- All files source files will be copied into corresponded folders. And Automation folder should looks like below



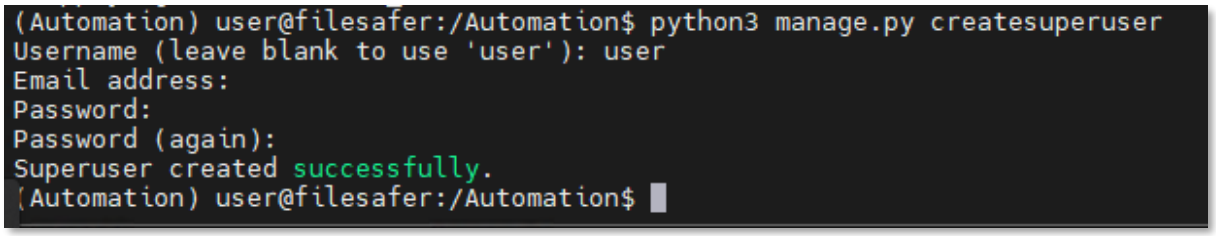
- Create Database

  python3 manage.py makemigrations

  python3 manage.py migrate

- Create superuser for the Web App. This account is for you to login to the Web GUI

  python3 manage.py createsuperuser



- Setup application auto-start (My ubuntu user account called “user” where used in @reboot code below)

  sudo nano /etc/crontab

  - add below line to the bottom and save / exit

    @reboot user /bin/bash -c "/Automation/run_http.sh"

  - (Optional) run the Django Web app without front end web reverse proxy

    Change above line to below and the web server will be ready

    https://<your-server-ip-address>:8000

    @reboot user /bin/bash -c "/Automation/run.sh"

Setup and configure the web server

- Setup Nginx (Engine X) as front-end web server
  - Install Nginx

    sudo apt-get install nginx

  - Setup web site in nginx by creating file “Django” in /etc/nginx/sites-available/

    sudo nano /etc/nginx/sites-available/Django

    - Copy below to the file, save and exit

```
server {
   listen 443 ssl;
   server_name <server FQDN or IP Address>;
   ssl_certificate /Automation/Cert/server.crt;
   ssl_certificate_key /Automation/Cert/server.key;
  client_max_body_size 100M;
   location / {
      proxy_pass http://127.0.0.1:8000;
      proxy_set_header Host $host;
      proxy_set_header X-Real-IP $remote_addr;
      proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
      proxy_set_header X-Forwarded-Proto $scheme;
     proxy_read_timeout 600;
     proxy_connect_timeout 600;
     proxy_send_timeout 600;
   }
}
server {
   listen 80;
   server_name your.domain.or.ip;
   return 301 https://$host$request_uri;
}
```

  - Start Nginx

    sudo ln -s /etc/nginx/sites-available/Django /etc/nginx/sites-enabled/

sudo nginx -t
sudo systemctl restart nginx

- Reboot the server and access the web app via browser

  sudo reboot now

  https://<your-server-ip-address>