How to Make Your Own TF2 Server

By therealbumface

How to Use This Guide

- Yellow Text is a hyperlink, for a download or video
- Red Arrows indicate hyperlinked images
- Blue Background is a Bash Script

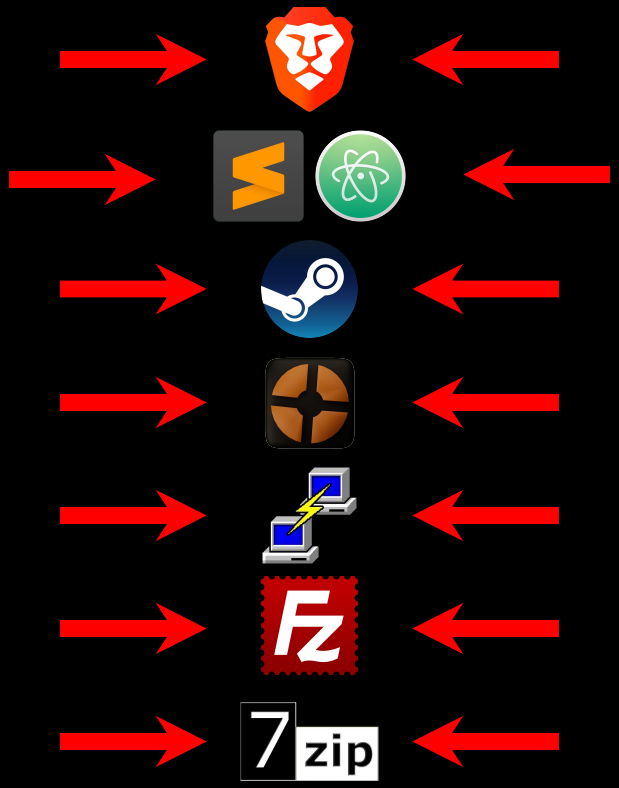
Why?

- Increase Your Skill Stack
- Create Your Own Community Server
- Contribute to the TF2 Community
- Spread Positive Vibes
- Make the World a Better Place!

Desktop Apps

1. Browser (Brave)
2. Text Editor (Sublime Text or Atom.io)
3. Steam
4. TF2
5. Putty / PuttyGen / Pageant
6. FileZilla
7. 7-Zip

Download Links



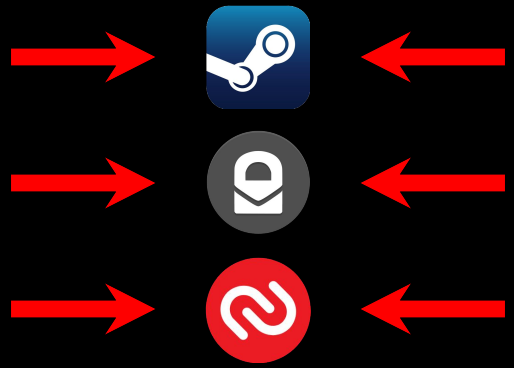
Mobile Apps

1. Steam Mobile Authenticator (2FA)

2. ProtonMail (for email)

3. Authy (2FA)

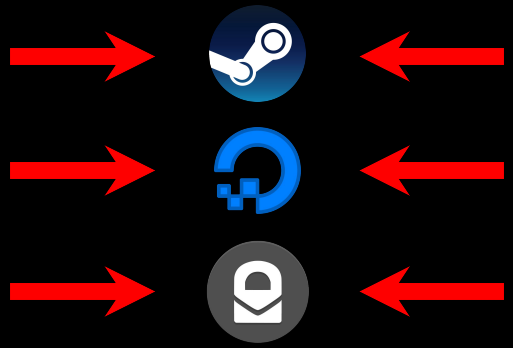
Download Links



Accounts

1. Steam (to play the game)
2. Digital Ocean (to host your server)
3. Email (ProtonMail is good)

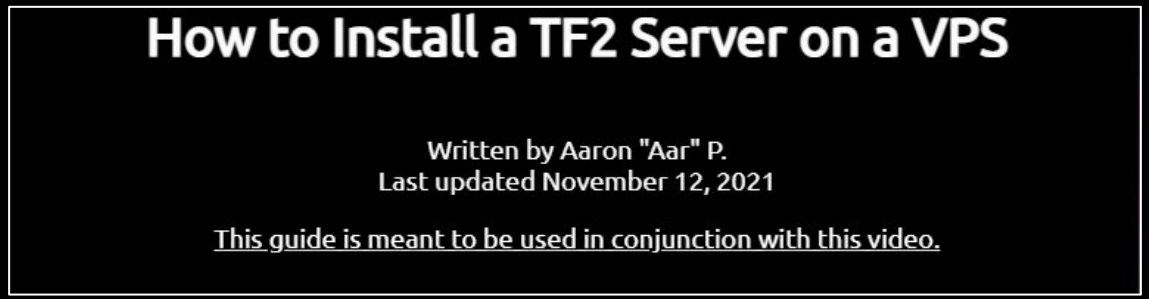
Download Links



Tutorial I Learned From

1. Run Your Own Custom TF2 Server for CHEAP! - Video Tutorial by Aar

2. How to Install a TF2 Server on a VPS - Text Tutorial by Aar

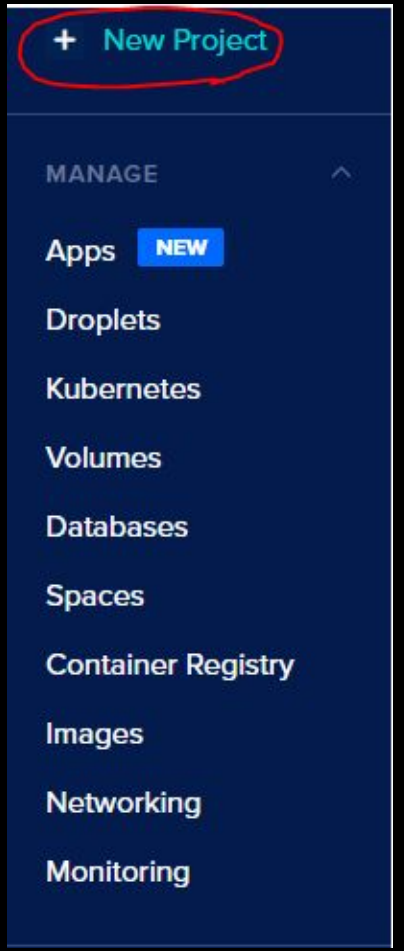


Initialization

1. Log in to your DigitalOcean account or sign up with Aar's referral link. You will need to have a payment method on your account to make your own server, such as a debit or credit card. Aar’s referral link gives you $100.00 free credit for a few months, but you still need a credit card.

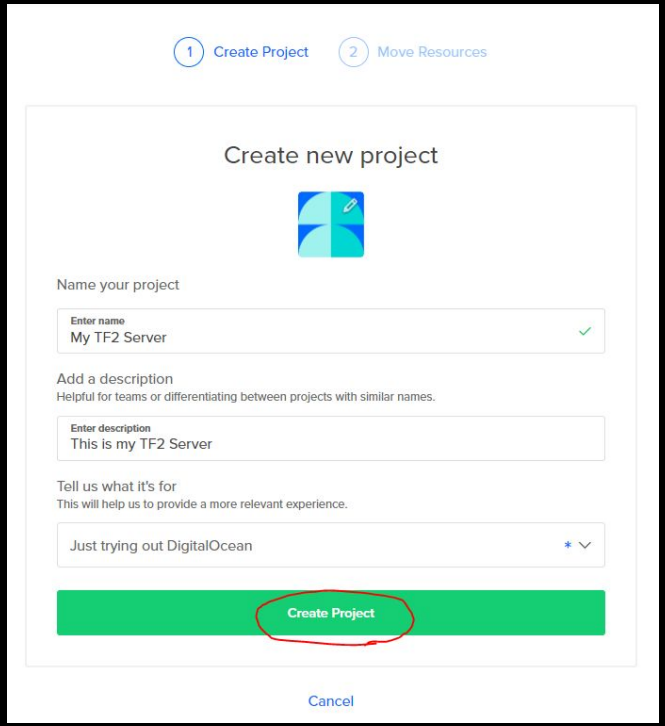
Initialization

2. Click “New Project” on the left panel.



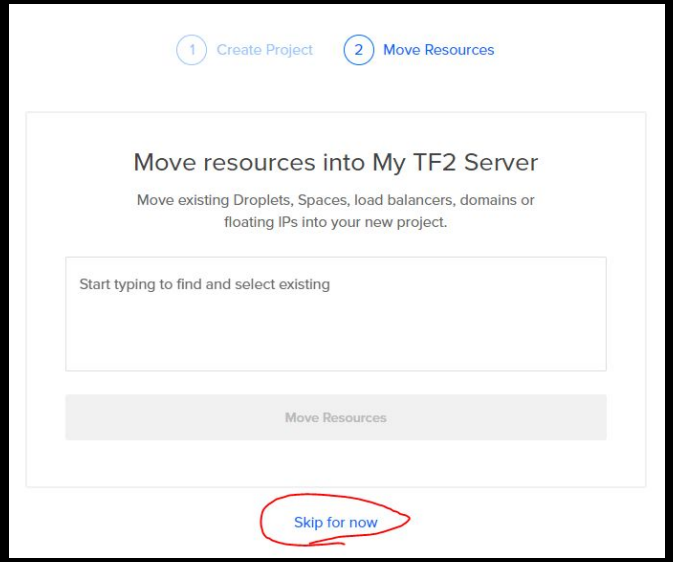
Initialization

3. Enter a name, description, and reason for your server. Then click “Create Project”.



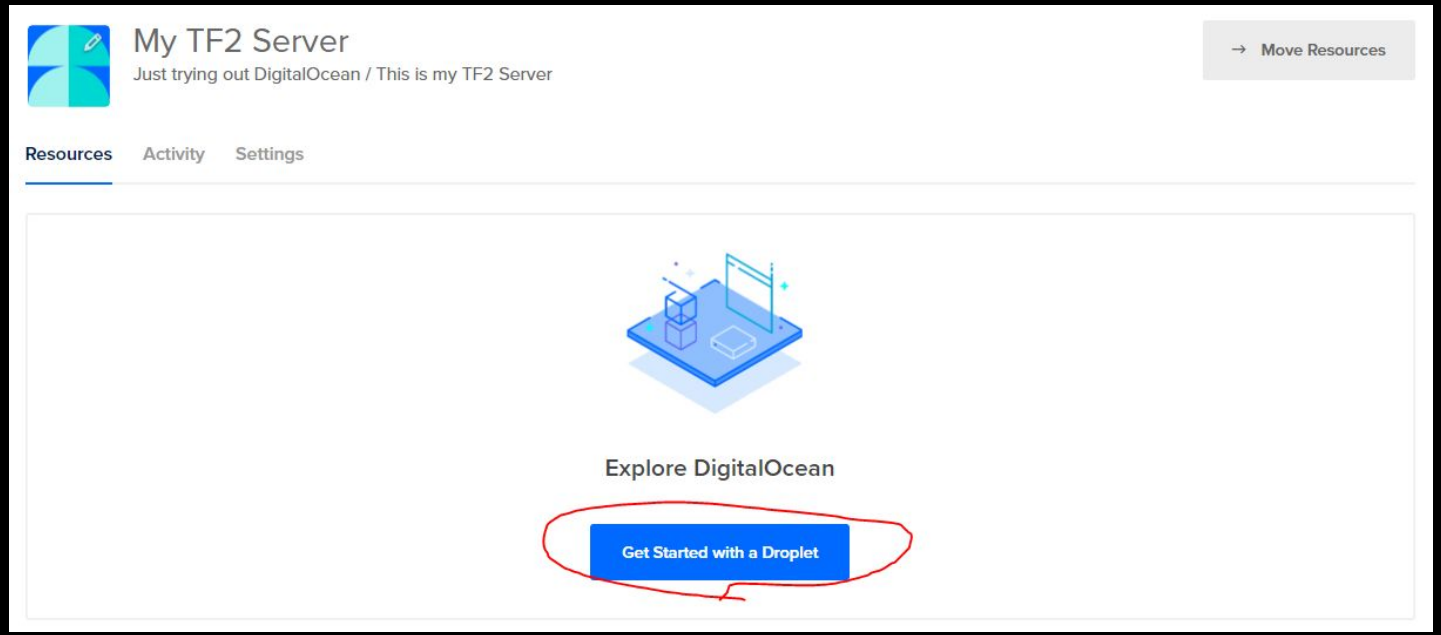
Initialization

4. Click “Skip for now” when asked about moving resources.



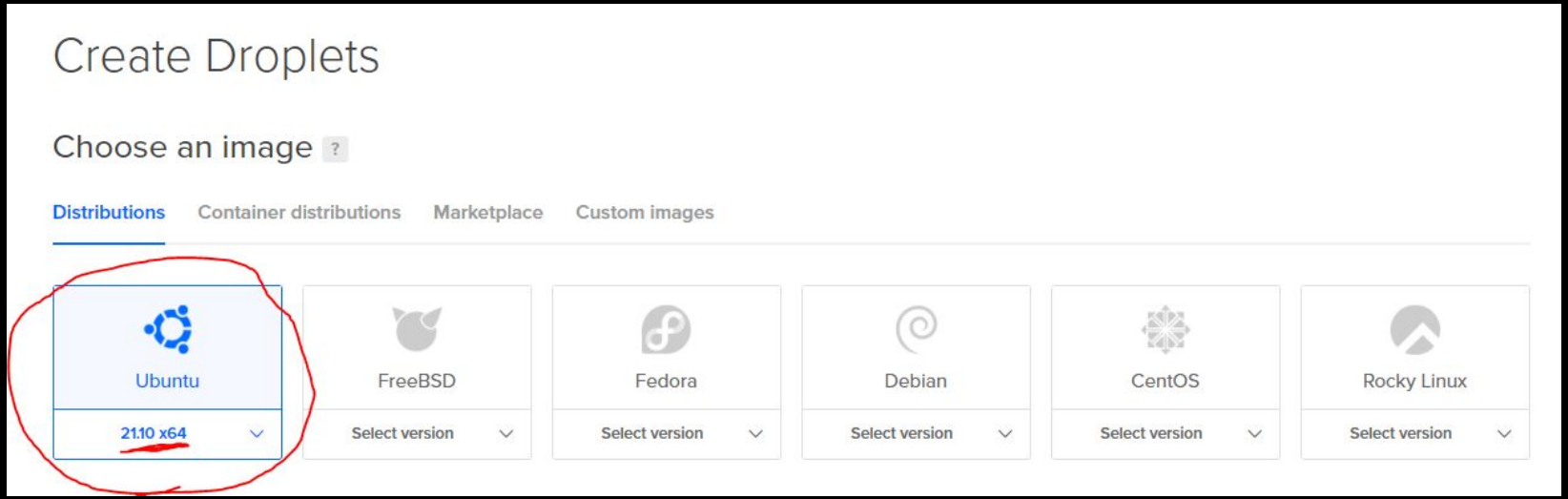
Initialization

5. Click “Get Started with a Droplet”.



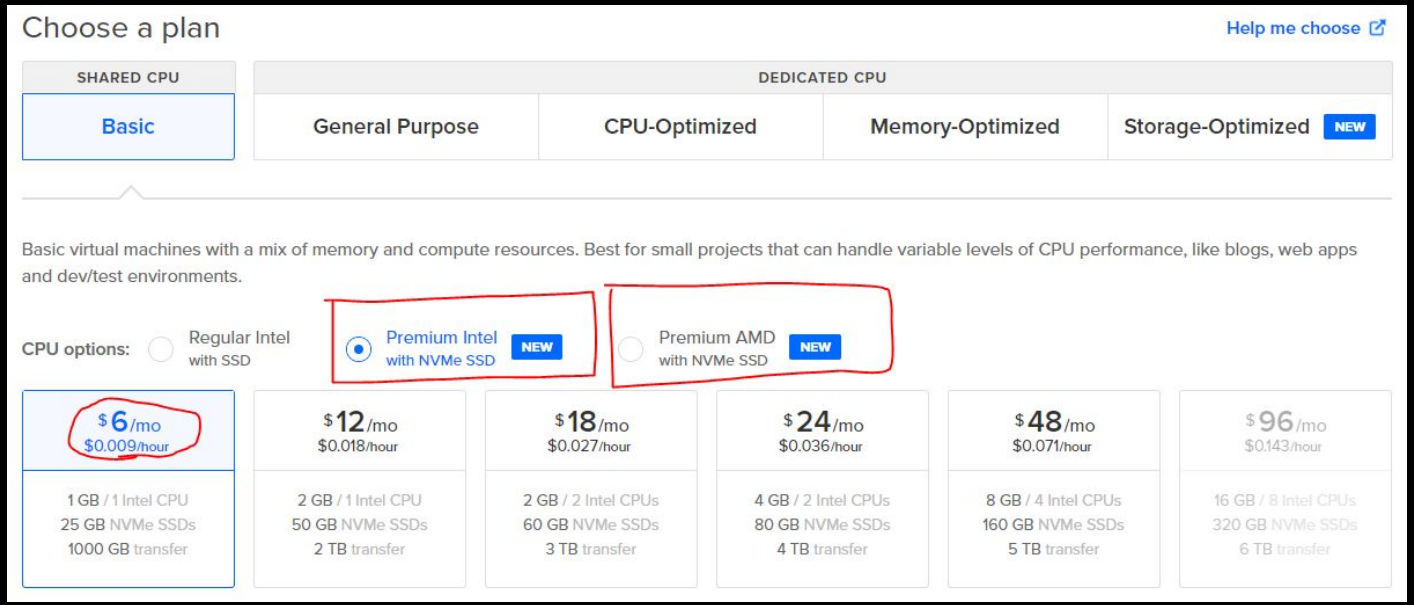
Initialization

6. Select the latest Ubuntu Distribution. I chose Ubuntu 21.10 x64.



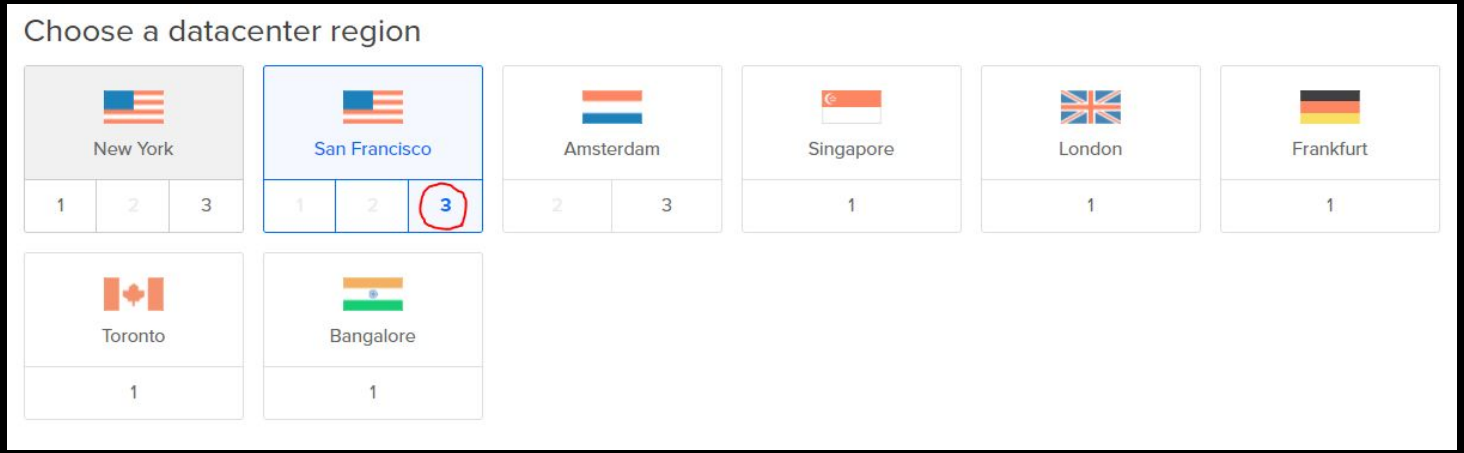
Initialization

7. Select the cheapest option ($6/mo), either Premium Intel or AMD.



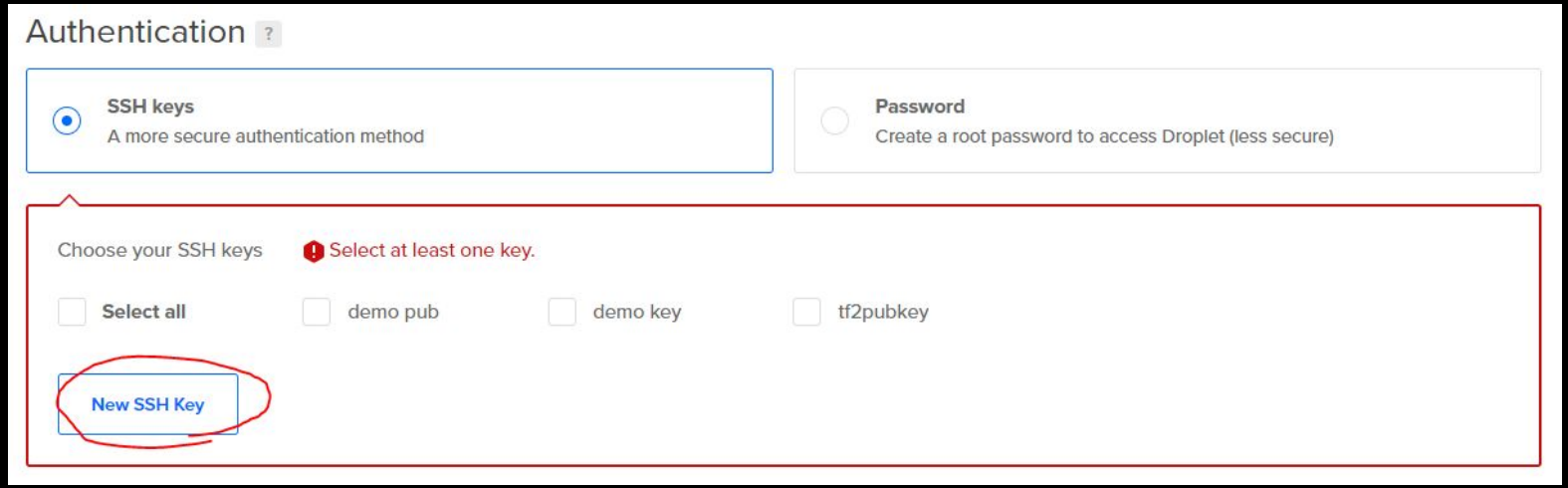
Initialization

8. Choose a datacenter region. I chose San Francisco (3). This is where your server will be located, so pick one close to where you live if you want good ping.



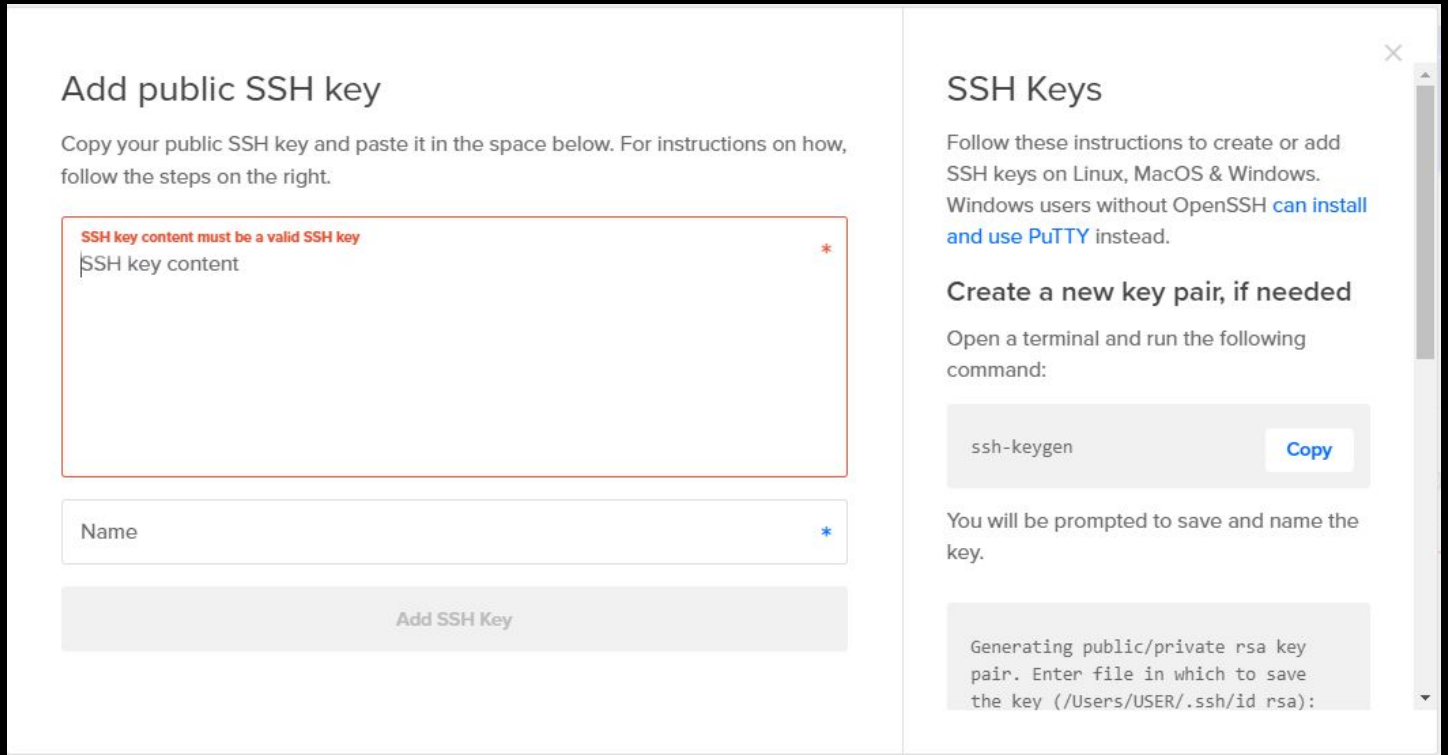
Initialization

9. Under “Authentication”, click “New SSH Key”.



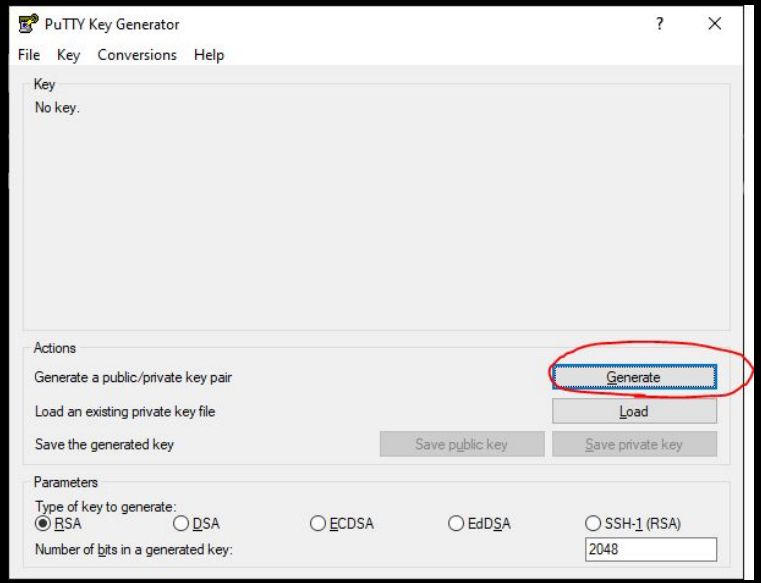
Initialization

10. This window will pop up. We will now open PuttyGen.



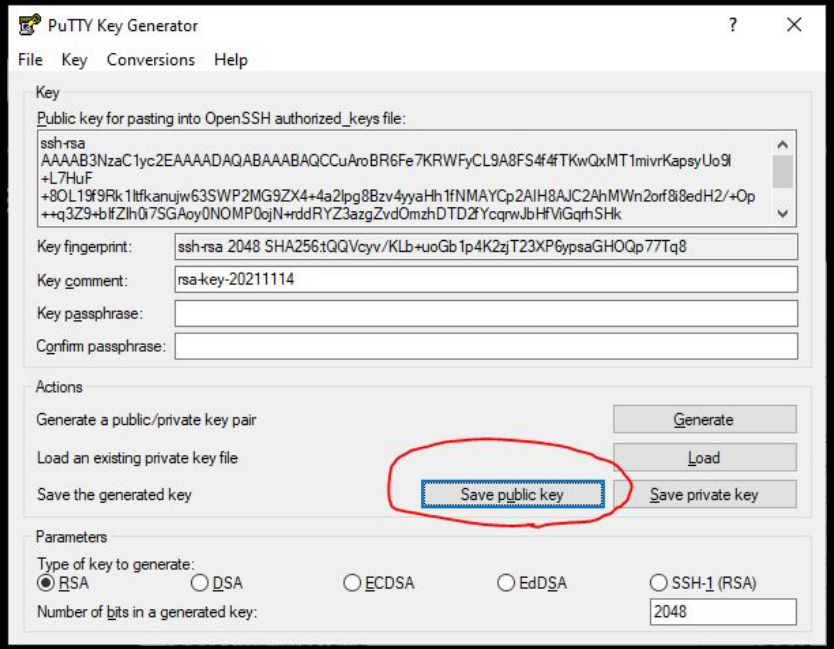
Initialization

11. Click “Generate”. It will ask you to move your mouse around to generate randomness. Move your mouse around when prompted.



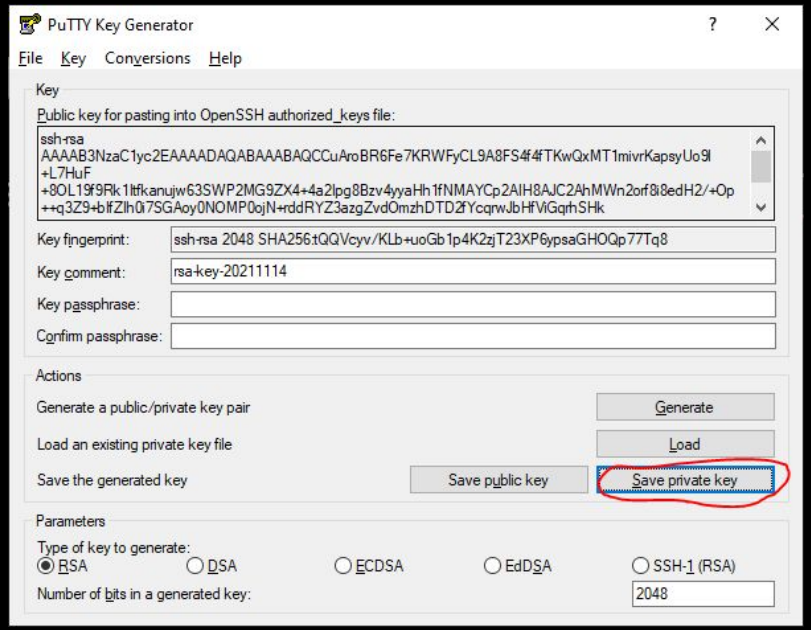
Initialization

12. Click “Save public key”. Name the key “myPubTF2”.



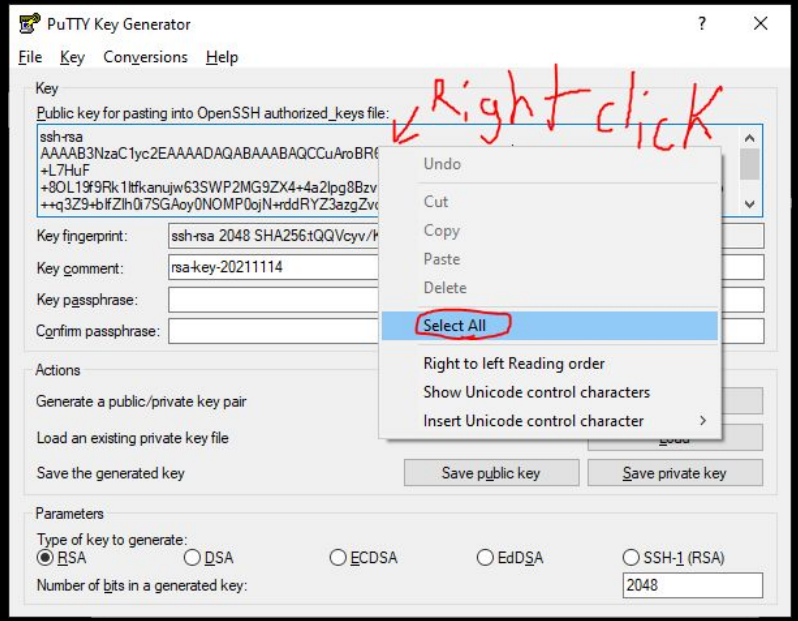
Initialization

13. Click “Save private key”. Name the key “myPrivTF2.ppk”. You can choose to use a passphrase; I choose not to for ease of use.



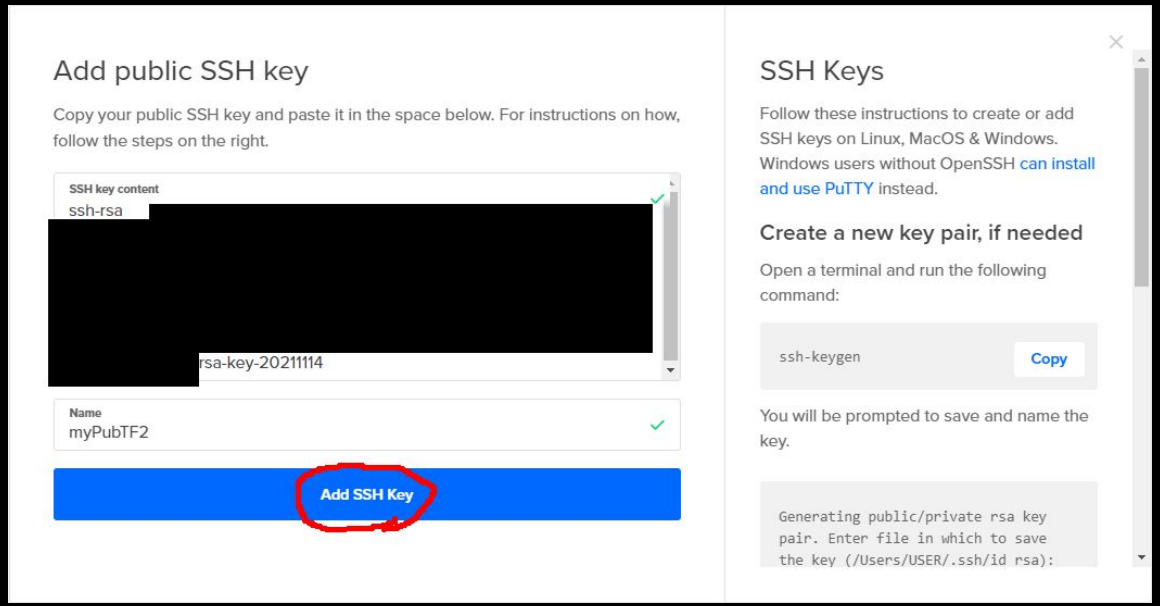
Initialization

14. Right click inside the Public Key box. Click “Select All”. Press Ctrl+C to copy this text. Go back to the “Add public SSH key”, and press Ctrl+V to paste.



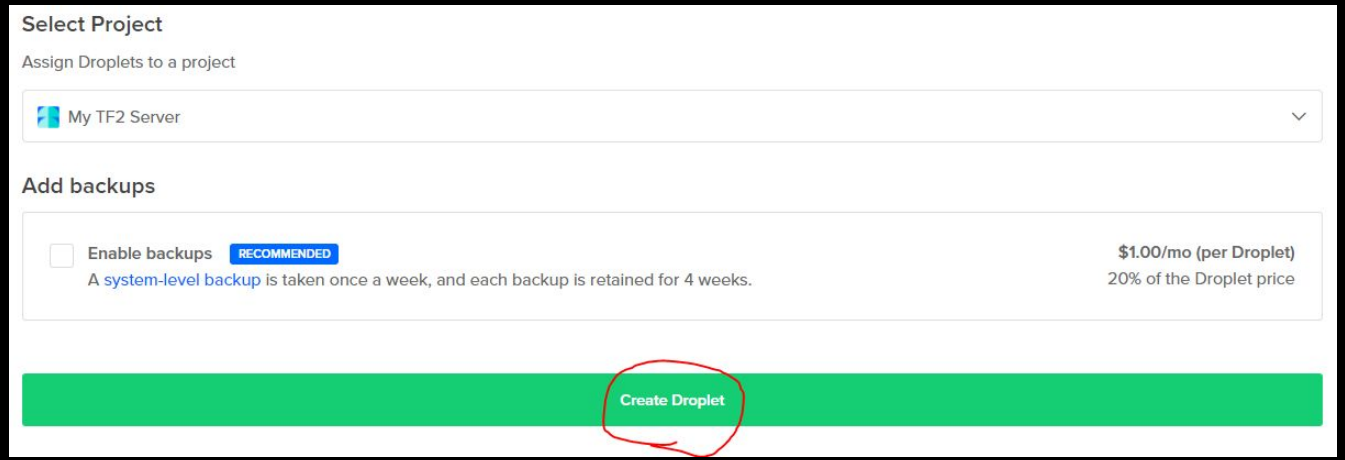
Initialization

15. Name your public SSH Key “myPubTF2”. FYI I have blacked out my SSH Key. Click “Add SSH Key”.



Initialization

16. Click “Create Droplet”.



Initialization

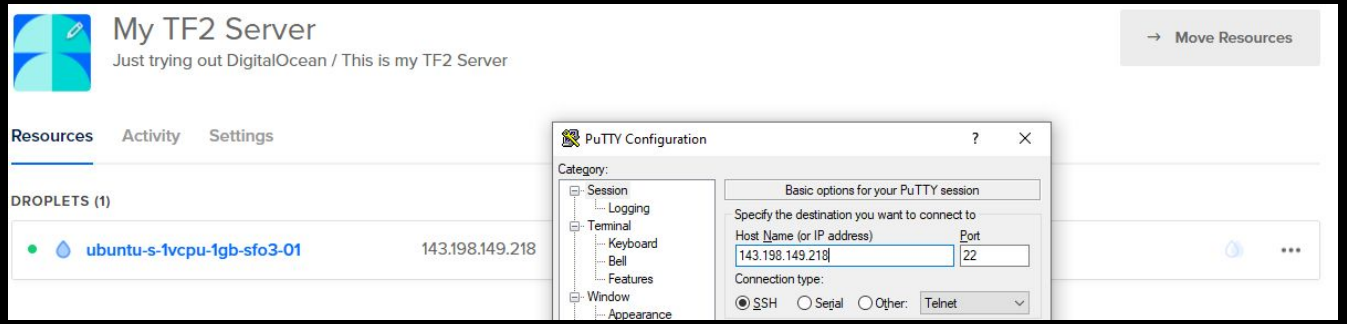
17. Wait for the Droplet to finish loading.

Initialization

18. Copy the IP Address of your Server.

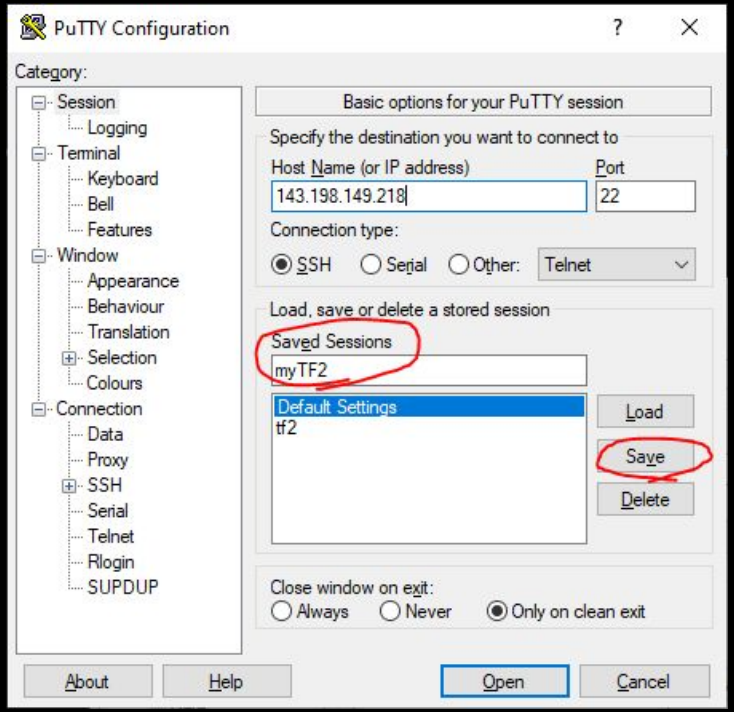
Initialization

19. Open Putty. Paste the IP Address in the Host Name (or IP address) box.



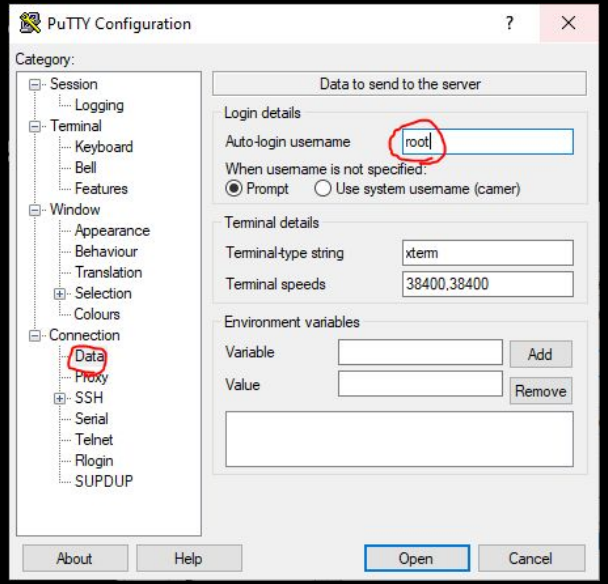
Initialization

20. Under “Saved Sessions”, type “myTF2”. Then click “Save”.



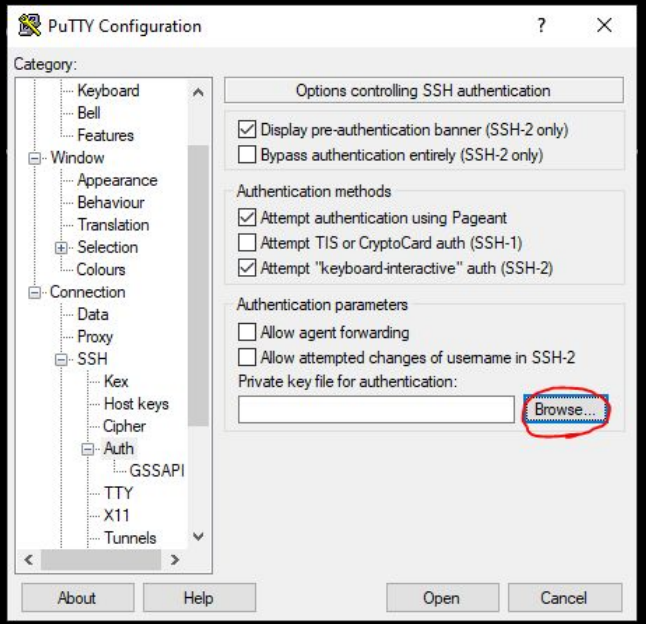
Initialization

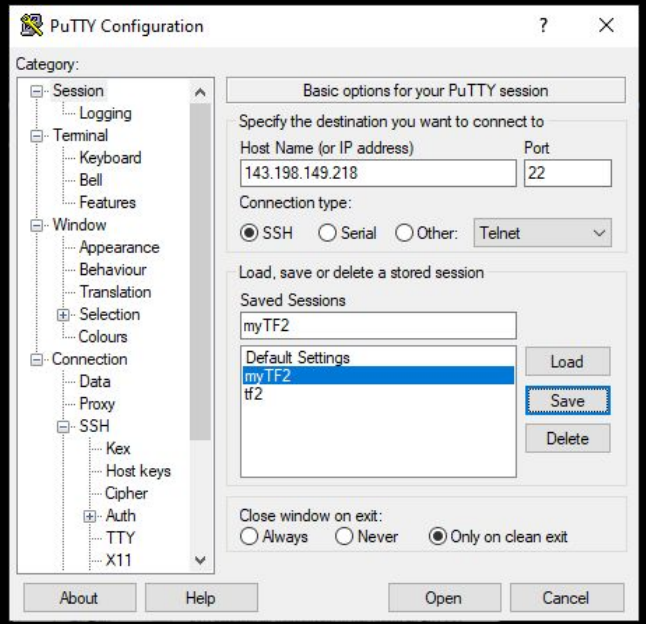
21. Under “Connection”, click “Data”. Then, under “Auto-login username, type “root”.



Initialization

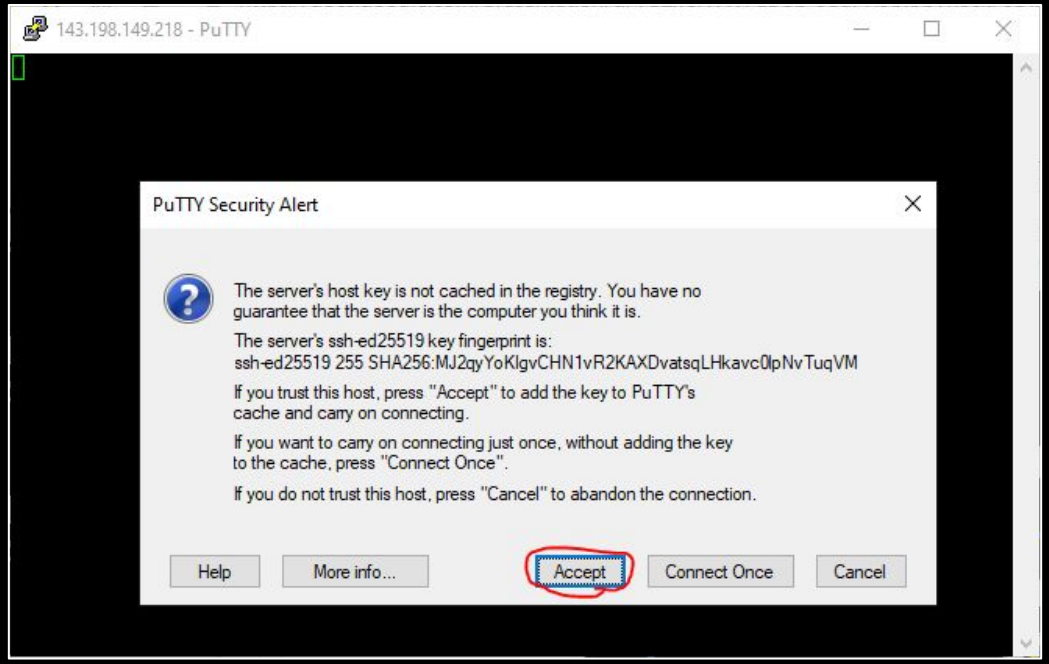
22. Under “Connection”, click “SSH”. Then click “Auth”. Click “Browse”, and select your private key (myPrivTF2.ppk). Go back to Sessions and click “Save”.





Initialization

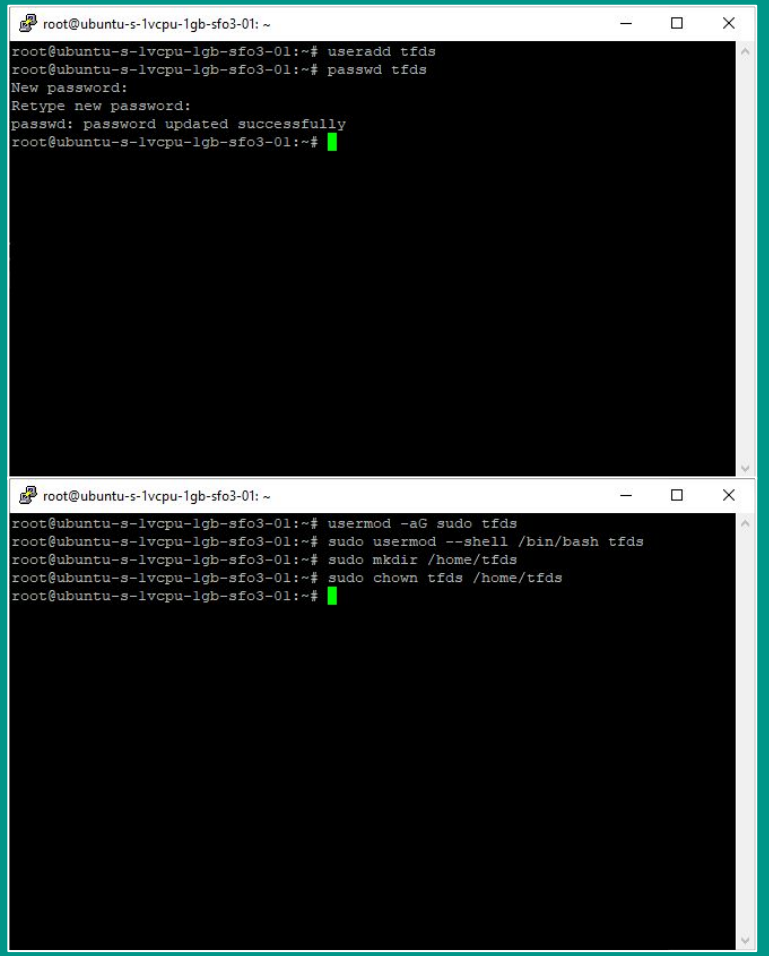
23. If prompted, click “Accept”.



makeUser.sh

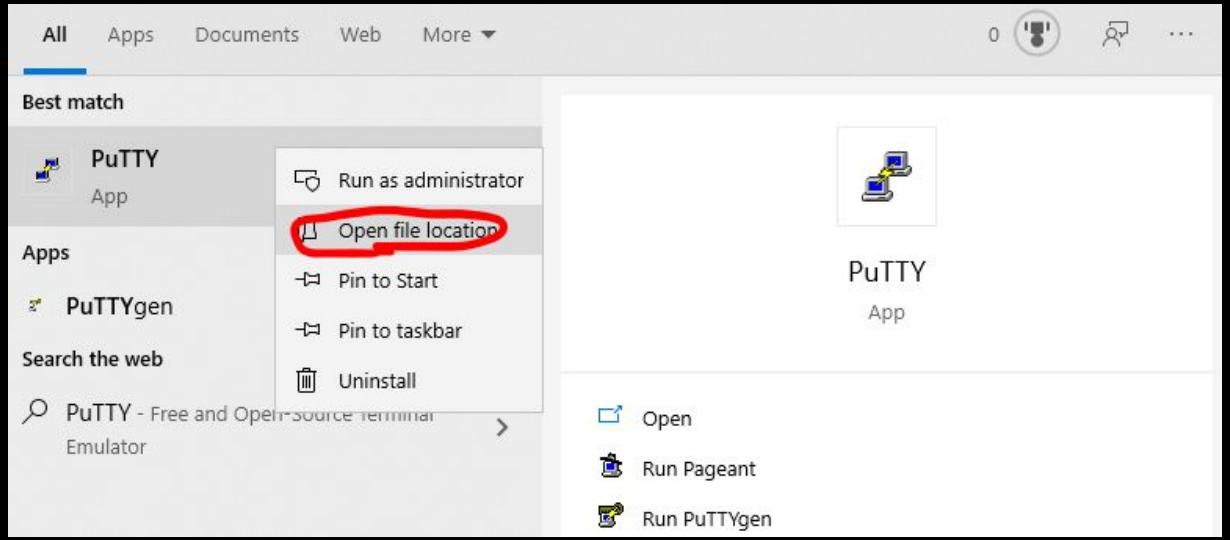
```
#!/usr/bin/bash
useradd tfds
passwd -d tfds
usermod -aG sudo tfds
sudo usermod --shell /bin/bash tfds
sudo mkdir /home/tfds
sudo chown tfds /home/tfds

# sudo chmod +x steamAndHL.sh
# ./steamAndHL.sh
```



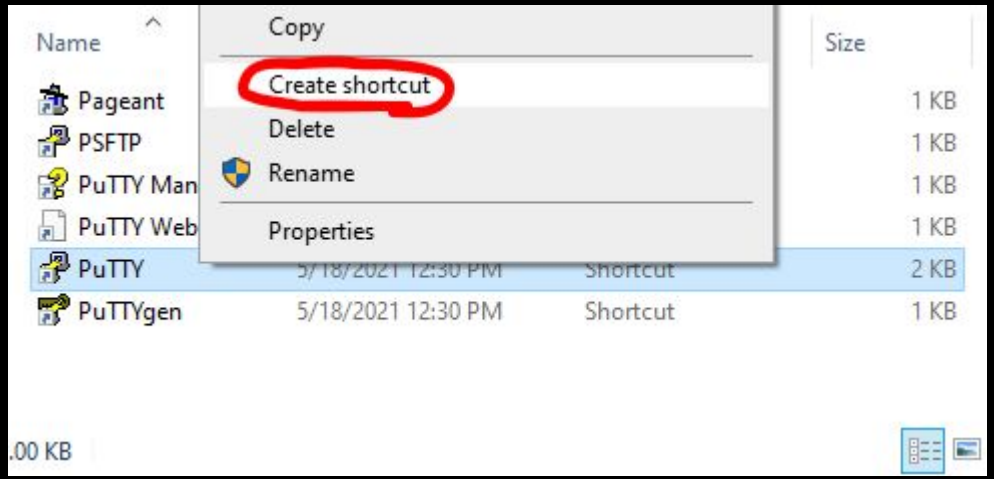
Initialization

24. Close PuTTY. Press the Windows Key, and search for Putty on your computer. Right click, then click “Open file location”.



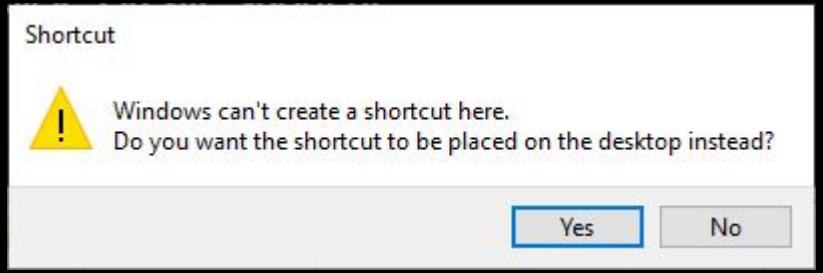
Initialization

25. Right click Putty, and click “Create shortcut”.



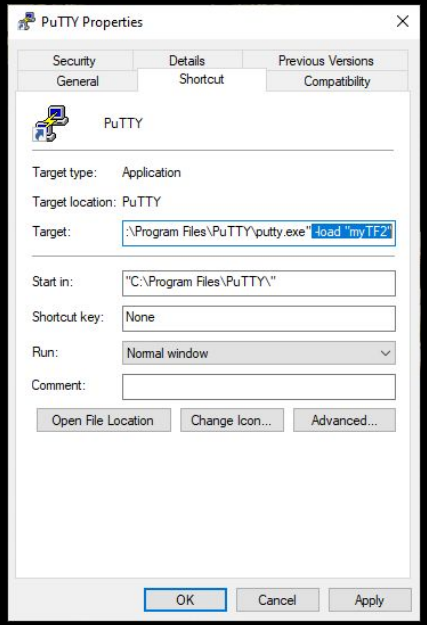
Initialization

26. Click “Yes” when prompted.



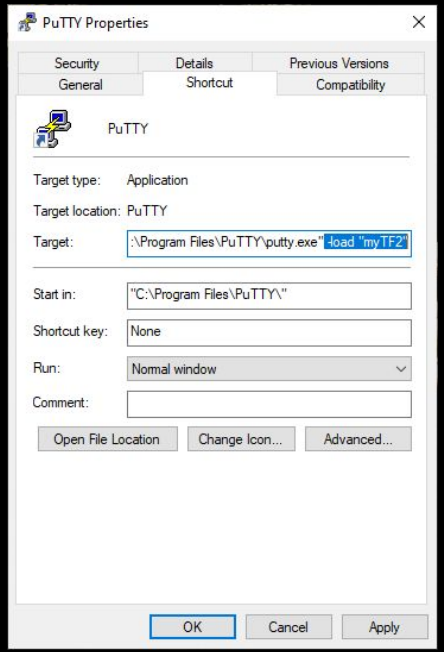
Initialization

27. Right click on your shortcut, then click “Properties”. Type “ -load “myTF2” at the end of the target box. Click “Apply”, then click “OK”.



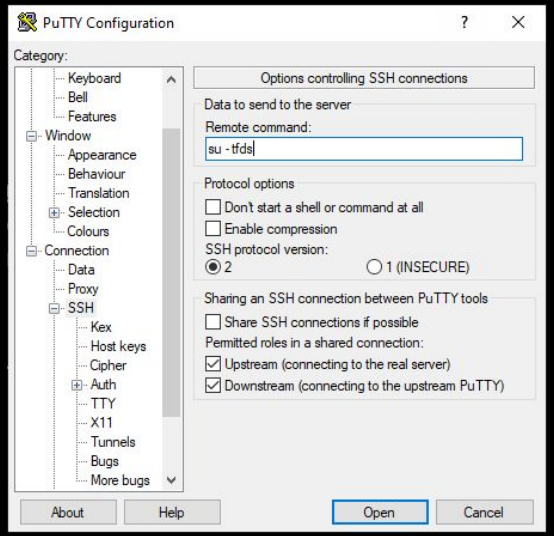
Initialization

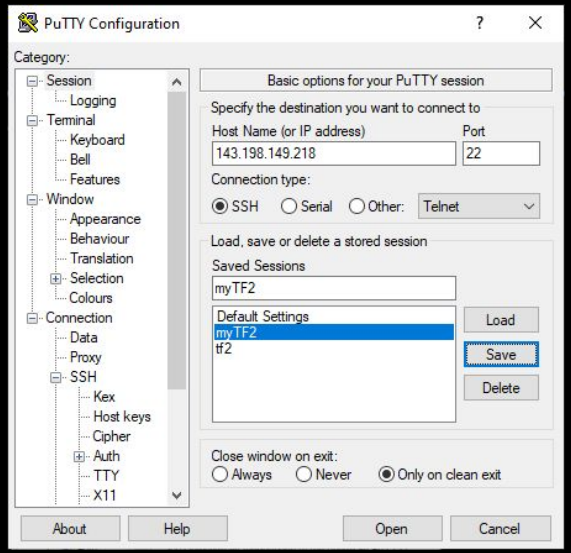
28. Right click on your shortcut, then click “Properties”. Type “ -load “myTF2” at the end of the target box. Click “Apply”, then click “OK”. You can drag this shortcut onto your Taskbar, or just double click it from your Desktop to automatically load your saved session “myTF2”. This makes jumping into the console extremely quick.



Initialization

29. Open Putty normally (not using your Shortcut). Under Connection click SSH. Under “Remote command”, type “su - tfds”. Go back to Saved Sessions, and click “Save” to save this change. If you ever have issues, you can always open Putty or any of the other programs by pressing the Windows key and searching manually.





Initialization

30. Open Putty using your Shortcut you created. Run “sudo apt update” and then run “sudo apt upgrade -y”. Enter your password for tfds when prompted.

steamAndHL.sh

```
#!/usr/bin/bash
sudo mkdir /hlserver
sudo chmod 775 /hlserver
sudo chown tfds /hlserver
cd /hlserver

sudo dpkg --add-architecture i386
sudo apt-get update
sudo apt-get -y install lib32z1 libncurses5:i386 libbz2-1.0:i386 libgcc-s1 lib32stdc++6 libtinfo5:i386 libcurl3-gnutls:i386
wget https://steamcdn-a.akamaihd.net/client/installer/steamcmd_linux.tar.gz
tar xvzf steamcmd_linux.tar.gz

echo -e "login anonymous\nforce_install_dir /hlserver/tf2\napp_update 232250\nquit" > tf2_ds.txt
echo -e "./steamcmd.sh +runscript tf2_ds.txt" > update.sh
sudo chmod +x steamcmd.sh update.sh
./update.sh

# sudo chmod +x makeAndRunTF.sh
# ./makeAndRunTF.sh
```

makeAndRunTF.sh

```
#!/usr/bin/bash
echo -e "#!/bin/sh\ntf2/srcds_run -console -game tf -timeout 0 -autoupdate -steam_dir /hlserver -steamcmd_script /hlserver/tf2_ds.txt +maxplayers
24 +map ctf_2fort +sv_pure 0" > tf.sh
sudo chmod +x tf.sh
./tf.sh

# Open Team Fortress 2 on your client computer and enter the console command connect x (replace x with Droplet's IP)
# Verify that you successfully loaded into the map you specified in tf.sh
# Press Ctrl + C in PuTTY to terminate the game server session
```

additionalSetup.sh

```
#!/usr/bin/bash
sudo ufw allow 22
sudo ufw allow 80
sudo ufw allow 27015
sudo ufw enable
```

Additional Setup and Customization

1. Open Pageant
2. Add your myPrivTF2.ppk key
3. Open FileZilla
4. Connect to your Droplet by entering its IP, using **root** as your username, followed by port **22** for sFTP
5. Enter the **hlserver, tf2,** and **tf** folders

Additional Setup and Customization

1. Go to my github: https://github.com/thereal-bumface/modList
2. Download tf.zip
3. Extract
4. Drag and drop into /hlserver/tf2/
    a. This includes
        i. All my SourceMod Plugins
        ii. My server.cfg (replace your IP address for fastdl, and replace your hostname)
        iii. My motd.txt (change to your liking)
        iv. My mapcycle.txt (change to your liking)

Installing SourceMod

1. Navigate to the **addons** folder, the **sourcemod** folder, and the **configs** folder
2. Right-click on **admins_simple.ini** and click **View/Edit**
3. Visit Steam ID Finder and copy your steamID
4. Paste your steamID on the last line of **admins_simple.ini**, surrounded by quotes, and press the **Tab** key
5. Enter **"99:z"**
6. Save the file and re-upload when prompted by FileZilla

Keeping the Server Running

1. Re-open PuTTY
2. Run **screen -S tf2** to create a new session for TF2 that persists
3. Run **cd /hlserver**
4. Run **./tf.sh**
5. Press **Ctrl + A** and then the **D** key to disconnect from the screen session
6. Run **screen -r** to reconnect to the session, and remember this information for later
7. **You will need to repeat this set of steps after every server reboot**
8. **NOTE: Always run your tf2 server as tfds, not as root.**

Testing the TF2 Server Again

1. Open *Team Fortress 2* on your local computer
2. Run the command **connect x** (replacing **x** with your Droplet's IP)
3. Run the command **sm** in the console and check for errors
4. Use **sm_rcon** to run commands on the server's command line

Hosting Workshop Maps

1. Enter the command **changelevel workshop/xxxxxx** in your server's command line (replace **xxxxxx** with the ID of the Workshop map)
2. You can also use this syntax in **mapcycle.txt**

localHostMaps.sh

```
#!/usr/bin/bash
sudo apt-get install apache2
sudo chmod 775 -R /var/www/html/
sudo chgrp -R tfds /var/www/html/
```

Setting up Locally-Hosted Maps

1. Open a connection to your Droplet in FileZilla
2. Navigate to the **var**, **www**, and **html** folders
3. Create a new folder titled **fastdl** and enter it
4. Create a new folder titled **tf** and enter it
5. Create a new folder titled **maps** and enter it
6. Place bz2-compressed versions of maps you would like to host in this folder
7. Place bsp versions of maps you would like to host in **/hlserver/tf2/tf/maps**

Recommended SourceMod Plugins

https://github.com/thereal-bumface/modList

Performing Regular Maintenance

1. Log on to your Droplet with PuTTY
2. Run the command **sudo apt update && sudo apt-get full-upgrade -y**
3. If you are prompted to reboot the server, ensure no players are in your TF2 server and run **sudo reboot** at a convenient time. If your server is rebooted, remember to launch the TF2 server again
4. Repeat these steps at least once per week to ensure proper security patches are installed