## **Before You Begin!**

Before you try to do any of this at home, you MUST get your parent's permission and choose a time when they can supervise and help.

Setting up and running an online server means that anyone with your external IP address will be able to join your server and play in your Minecraft world.

Think carefully about who you invite to play on your server!



Do not do this at camp! We use LAN servers at camp instead.



# **Verifying the Latest Version of Java**

First, make sure you have the latest version of Java.

• If you don't, use this link to download it.

# Tutorials/Setting up a server

< Tutorials (Redirected from Setting up a server)

#### Warning

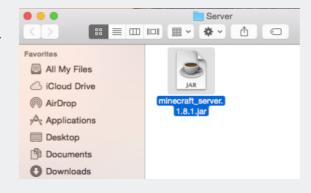
Before following these instructions please note that running server software on your computer without a clear understanding of what you are doing may seriously harm your system and lead to vulnerabilities.[1]

This tutorial takes you through the steps of setting up your own server using the default server software that Mojang distributes free of charge. The software may be installed on most operating systems, including Windows, Mac and Linux.

# Minecraft\_Server.jar

First, you'll need the server files. You can get these for free from Mojang's site:

- 1. Go to the <u>Minecraft Server Downloads page</u> and download **minecraft\_server.1.11.jar**
- Once the download finishes, copy minecraft\_server.1.11.jar into a new folder on your desktop and call this folder "Minecraft Server".
- Double-click minecraft\_server.1.11.jar to run it. You'll see a number of new files appear in the folder along with it.



## **♀** New Version?

If Minecraft updates to a new version, the directions above will still apply but "1.11" will be replaced with whatever the new version number is!

#### start.command File

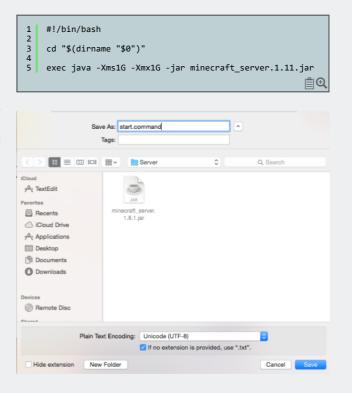
Now you need to create a batch file to run your server.

- Open the TextEdit application.
- Create a new plain text file. Click Format > Make Plain Text. Do this before you add any text.
- Copy the lines from the box to the right and paste them into the text file.

**IMPORTANT:** In the text box above, change "minecraft\_server1.11.jar" to match the name of the minecraft\_server file in the folder.

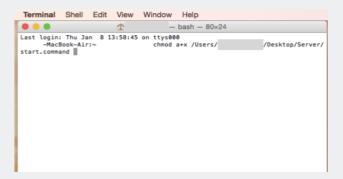
#### Save as Command File

- Click Save
- Save the file with this exact name: start.command inside of your server folder.



# **Opening the Terminal**

- 1. Go to Applications > Utilities > doubleclick Terminal.
- 2. Type chmod a+x with a space after it.
- Open a Finder window of your server folder, and drag start.command to the Terminal. It will appear as the file directory for that file.
- 4. Press Enter.
- 5. Close the Terminal.

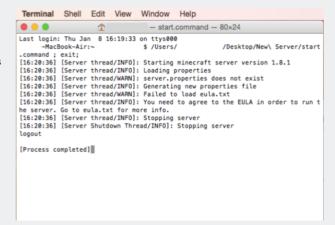


# First Time Running Server

• Double click on the start.command file.

The first time the server runs, it will generate this message. It's informing you of the EULA agreement.

 Press any key, and the cmd window will close so you can agree to the EULA agreement.



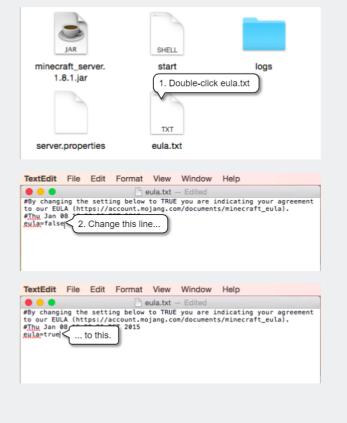
# Agreeing to the EULA

Mojang provides a license agreement you must agree to before launching a Minecraft server. You'll need to edit the file **eula.txt** to indicate that you agree.

1. Double-click eula.txt.

You can read the EULA by copying and pasting the text from the file or by clicking <a href="here">here</a>.

2. Change the line eula=false to eula=true.

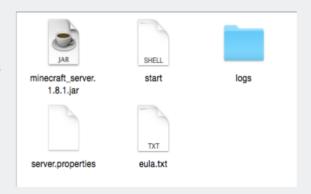


## **Running the Server**

Your server folder should now have the five files in it that are shown in the image to the right. After you run your server again, the rest of the important server files will appear in this folder.

 Double-click start.command and your server will launch.

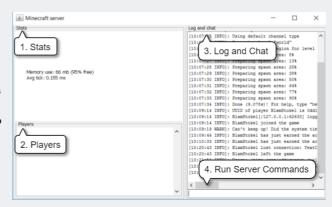
A window will appear with some information about your server. As long as you leave this window open, your server is running and players will be able to connect!



#### **The Server Window**

Your server provides some information to help you keep track of what's going on, even if you're not in game.

- 1. You can see how much memory the server is using in the **Stats** panel.
- 2. You can check who is currently connected to the server in the **Players** panel.
- 3. You can see server messages and player chats in the **Log and Chat** panel.
- 4. You can use the field on the bottom-right to enter server commands.



# **Server Commands**

Server commands allow advanced users more control over their server.

You can find a list of all possible commands here.

## **Joining Your Server**

Now it's time to join your server from Minecraft.

- 1. Run Minecraft.
- 2. On the main menu, click Multiplayer.
- 3. Click Add Server.
- 4. Name your server in the **Server Name** field.
- 5. Type "localhost" in the **Server Address** field.
- 6. Click Done.
- 7. Select your server and click Join Server.

You should now be able to play on your home server.

Next, you'll need to set up your internet connection so other players can connect.





#### **Port Forwarding**

The next step in the process requires adjusting the settings on your router so that other users can access your computer through it.

This process will be different for everyone, since it's based on the kind of router you have.

- Before you begin, <u>read this page on portforward.com</u> that offers some basic information on port forwarding.
- Go to this link for a list of Minecraft port forwarding quides.
- 3. Select your router's make and model from the list and follow the instructions provided.

#### **♀** Is Your Router Not on the List?

If you can't find your router on the list on that site here's a couple things to try:

- If you can find your manufacturer but not the model:
  Try the directions for the closest number to your model you can find. They're often similar processes.
- Search for your router's model and "port forwarding" on the web.
- Contact your router's customer support and ask how to forward ports.



### **Finding Your External IP Address**

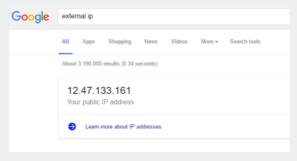
Once you've fowarded your ports, you'll need to find your **external IP**.

- 1. Open a browser and go to google.com
- 2. Type "external ip" in the search bar and press **Enter** or **Return**.
- 3. Google will tell you your external IP address.

Your external IP address will either be **IPv4** or **IPv6** and will look like one of the examples below:

- Sample IPv4 address: 12.34.456.789
- Sample IPv6 address: 2001:0db8:0a0b:12f0:0000:0000:0000:0001

Save this number–you'll need it for other people to connect to your server.



### **Connecting to Your Server**

Now that you've port-forwarded your connection, other players can connect with your **external IP address**. Have players joining your server follow the steps below:

- 1. In Minecraft, click Multiplayer.
- 2. Click Add Server.
- 3. Type in a server name.
- 4. Type in the server address. This will be your external IP followed by the port number :25565 This will look like the address in the image on the right.
  - If you have an IPv6 address, enclose your address in [ ] characters like this:
    [2001:0db8:0a0b:12f0:0000:0000:00001]:25565
- Click **Done**. Minecraft will try to connect to the server. Once connected, select the server, then click **Join Server**.



# **®** Inviting Players to Join

Anyone you give your external IP address to will be able to play on your Minecraft Server. Make sure that you trust whomever you invite to play.

It's safest to only invite people you know. **Ask your** parents before inviting new players to join!

### Server.properties File

You can also adjust some settings of the game using the file in the Server folder called **Server.properties**.

 Open the file with any text editor, and you can change the properties of your Minecraft world by editing lines of the file.

The most common properties you might change are:

- gamemode=0: change this to gamemode=1 to put your server in creative mode.
- max-players=20: change this number to increase or decrease the number of players that can join your server at one time.

You can find a reference for all the options available on the Minecraft Wiki <u>here</u>.

# **9** Editing Server Properties

You won't need to change anything in this file for your server to work!

Don't make changes to the file unless you're sure what the setting will do.

#Minecraft server properties #Tue Aug 23 10:07:34 PDT 2016 generator-settings= op-permission-level=4 allow-nether=true level-name=world enable-query=false 8 allow-flight=false 9 announce-player-achievements=true 10 server-port=25565 11 max-world-size=29999984 level-type=DEFAULT 13 enable-rcon=false 14 force-gamemode=false level-seed= 16 server-ip= network-compression-threshold=256 18 max-build-height=256 19 spawn-npcs=true 20 white-list=false spawn-animals=true snooper-enabled=true 23 hardcore=false 24 resource-pack-sha1= online-mode-true



# C Recap

- Always ask your parents for permission before you start setting up an online server!
- You must download the server software from Minecraft and use port forwarding to allow others access to your server.

# 

 Don't forget that you can double check steps and get more information on setting up servers <u>here</u>