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There are many web hosts that offer Minecraft servers, including Amazon Web Services, Apex, Hostinger, and PebbleHost, so your first step should be to shop around. You'll find various server requirements depending on your Minecraft world size, the number of players that'll connect to your server, and whether you want to install mods. Naturally, you'll pay more out of pocket if you purchase a larger plan, but many web hosts let you upgrade from a lower service tier to a higher service tier without too much fuss. So if you're just starting out, it may be safer to start with a smaller plan and upgrade later as your needs grow.

The most important thing to consider is RAM and virtual CPU allocation. Your server quality and number of players hinge on the server's memory. 2GB of RAM could support up to 10 players before lag creeps into the game. Virtual CPU allocation affects gameplay smoothness; the more CPUs or higher quality CPUs powering your server, the better. As mentioned earlier, if you just want to play with a handful of friends, a basic plan should suffice. If you're hoping to grow a community, however, you must invest money into a high-end hosting subscription.

Let's take a look at PebbleHost for this example. Its Budget plan lets you choose the Minecraft version you want to run, including the latest edition. PebbleHost also lets you specify the type of server you want to run, including the PC Java edition, the highly customized Spigot version, and the console/mobile Bedrock edition. For example, a server for either vanilla Minecraft (the base PC Java edition) or Minecraft 1.17 costs $5 per month and comes with a recommended 5GB RAM allocation.

The basic server creation steps are more or less the same, regardless of the service you choose. Here's a quick walkthrough of what you should do:

Select the plan suitable for the RAM total that you'll need to properly run Minecraft.

Configure your server, specifying the region, game version, and add-ons.

Review your information, create an account with the provider if needed, and submit your payment information. Once the payment is confirmed, you'll receive information about how to access your server.

Copy the IP address that the hosting service gives you to access your server. Note that you

must use the version of Minecraft you signed up for when purchasing the VPS.

Launch Minecraft, click the Multiplayer tab, and then click the Add Server tab. Enter the server information there.

That's it! Enjoy your new, server-hosted Minecraft world, and share the IP address with friends so you can play together.
minecraft

The process is a bit more involved If you wish to take a more hands-on approach and host a Minecraft server on your own PC. You can create a Minecraft server with a PC running either the Linux or Mac operating system, and the process is generally the same. We'll show you how to create a Minecraft server from a Windows computer.

Get Minecraft Java Edition and the Latest Java

You need to have a few pieces software in order to host Minecraft servers on your computer. Firstly, you need Minecraft Java Edition. If you own any other version of Minecraft, be it the console or Windows 10 editions, you cannot host your own custom server. If you have Minecraft Java, then you must install Java (or update to the latest version).

Head over to the Java Devkit page, or click https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html(Opens in a new window) and search for Windows x64 Installer.

Click the download link, accept the terms of service, and run the file when it finishes downloading.

This opens an installation wizard. Go through the installation process, and close the window when it's complete.

Create a Folder, Download the Jar File

Once you've gotten Minecraft Java and the latest version of Java, you can get started on that server. For simplicity's sake, you should create a folder for all your files.

Right-click your desktop, scroll down to New, and select Folder.

Give this folder a name of your choosing. For this example, lets simply name it Server.

Now, you must grab additional key files, including the server JAR file. Fortunately Mojang Studios, Minecraft's developer, hosts the files.

Recommended by Our Editors

Head to the official site, https://www.minecraft.net/en-us/download. (Opens in a new window)

Scroll down to the Server Software section, and look for the Java Edition Server link.

Click it, and you'll be taken to the download page for the JAR 1.17.1.

Click the file link to begin the download process.

Your browser may state that this file may be harmful to your computer, or something to that effect. You're downloading the file directly from the Mojang's official site, so you don't need to stress this. Click the Keep option.

Once the file has finished downloading, which should not take long at all, drag it into the Server folder.

Open the Server folder; you should see the server.jar file inside. Technically, you could simply click the file, and let it create all the extra files you need. Don't do that. Instead, you're going to create a batch file, a script that launches the server for us. There's a reason for this: You'll want to specify commands as needed, and spot errors via the command window. Writing a batch file lets you do that. This isn't nearly as daunting as it sounds. In fact, the instructions to do this are on the server.jar download page.
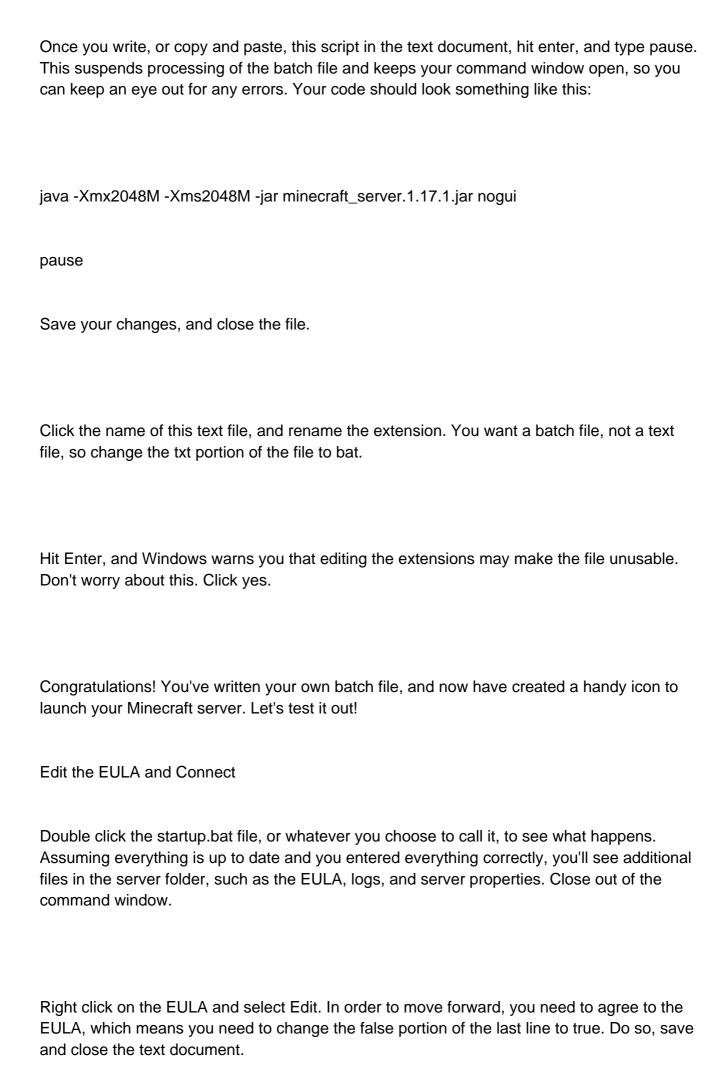
Create a Batch File

Right click the inside of the Server folder. Select New, and then Text Document.

Give it a name. In this example, we will use Startup.

Right click Startup, and select edit. A notepad window should open. Here, you'll write the batch script. On the Minecraft download page, the suggested command is as follows: java -Xmx1024M -Xms1024M -jar minecraft_server.1.17.1.jar nogui

This command tells Java to initialize 1024 megabytes of memory minimum/maximum to the Minecraft server.jar file. The nogui argument at the end prevents the Minecraft graphical user interface from popping up. This GUI eats up additional resources, and since you'll be using the console window, it's not really needed. However, as Mojang says on the download/server page, if you want to start the server with its default GUI, you can exclude the nogui argument.

It's also worth noting that, if you wish to initialize the server with more memory, you can bump the min/max to 2048, or any multiple of 1024. 2048 is probably ideal, in which case the command should appear as follows: java -Xmx2048M -Xms2048M -jar minecraft_server.1.17.1.jar nogui

Once you write, or copy and paste, this script in the text document, hit enter, and type pause. This suspends processing of the batch file and keeps your command window open, so you can keep an eye out for any errors. Your code should look something like this:

```
java -Xmx2048M -Xms2048M -jar minecraft_server.1.17.1.jar nogui
```

```
pause
```

Save your changes, and close the file.

Click the name of this text file, and rename the extension. You want a batch file, not a text file, so change the txt portion of the file to bat.

Hit Enter, and Windows warns you that editing the extensions may make the file unusable. Don't worry about this. Click yes.

Congratulations! You've written your own batch file, and now have created a handy icon to launch your Minecraft server. Let's test it out!

Edit the EULA and Connect

Double click the startup.bat file, or whatever you choose to call it, to see what happens. Assuming everything is up to date and you entered everything correctly, you'll see additional files in the server folder, such as the EULA, logs, and server properties. Close out of the command window.

Right click on the EULA and select Edit. In order to move forward, you need to agree to the EULA, which means you need to change the false portion of the last line to true. Do so, save and close the text document.

Rerun the batch file. Windows' firewall will try to keep you safe by blocking access to your network. Network access is needed, so you can ignore the warning and click Allow Access.

Your command window should show the server being prepared. It can take some time, but the command windows will notify you when it is done. When it is, you should be able to connect to the server.

Launch Minecraft Java Edition.

Click the Multiplayer tab, and then the Add Server option.

Key in the hosting computer's IP address or simply type "localhost" in the server address bar.

You're connected! If you wish to play with friends or others online, you need to give them the Minecraft server's IP address. This comes with risks, naturally, so if you're a cautious parent creating a cool virtual playground for your kids, you may want to stop here. That said, if your intent is to foster a community, you can port forward your router so people who are outside your local network can connect with the server. In any case, your Minecraft server should be up and running, so get in there and have fun!

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