A headless Raspberry Pi is a great tool because it can run arbitrary code using an assortment of inputs and outputs without requiring a keyboard, mouse, or monitor. But how do you connect to it to upload code and configure it? The answer, of course, is an SSH connection. But there are a few problems that we have to solve before we can use SSH.

The instructions for this guide are based on the [Configuration Instructions](https://www.raspberrypi.com/documentation/computers/configuration.html" \l "host-a-wireless-network-on-your-raspberry-pi) from the Raspberry Pi website. I followed the instructions and successfully created an Access Point that clients could *see,* but they couldn't *join*. So then I tried the article [Turn Your Raspberry Pi into an Access Point (Bookworm ready)](https://raspberrytips.com/access-point-setup-raspberry-pi/) from the RaspberryTips website, but it didn't work either. However, the article mentioned the Network Manager Text User Interface (NMTUI) tool, and after fiddling around with "nmtui" for a while and asking ChatGPT a few questions, it all came together.

# create a new network named "Hotspot" with SSID "RaspiWifi" using 802.11 b/g protocol

**$** sudo nmcli connection delete Hotspot  
**$** sudo nmcli connection add type wifi ifname wlan0  
 con-name Hotspot autoconnect yes ssid "RaspiWifi" mode ap

**$** sudo nmcli connection modify Hotspot 802-11-wireless.band bg

# set a password

**$** sudo nmcli connection modify Hotspot 802-11-wireless-security.key-mgmt  
 wpa-psk 802-11-wireless-security.psk "Secr3tPwd"

# give out IPv4 addresses to clients but ignore IPv6

**$** sudo nmcli connection modify Hotspot ipv4.addresses 192.168.1.1/24

**$** sudo nmcli connection modify Hotspot ipv4.gateway 192.168.1.1

**$** sudo nmcli connection modify Hotspot ipv4.method shared

**$** sudo nmcli connection modify Hotspot ipv6.method ignore

# turn the hotspot on and verify the settings

**$** sudo nmcli connection up Hotspot

**$** nmcli connection show Hotspot

**$** ip addr show wlan0

# or you can view the connection through the "graphical" tool NMTUI  
**$** sudo nmtui