

# Configuring Raspberry Pi

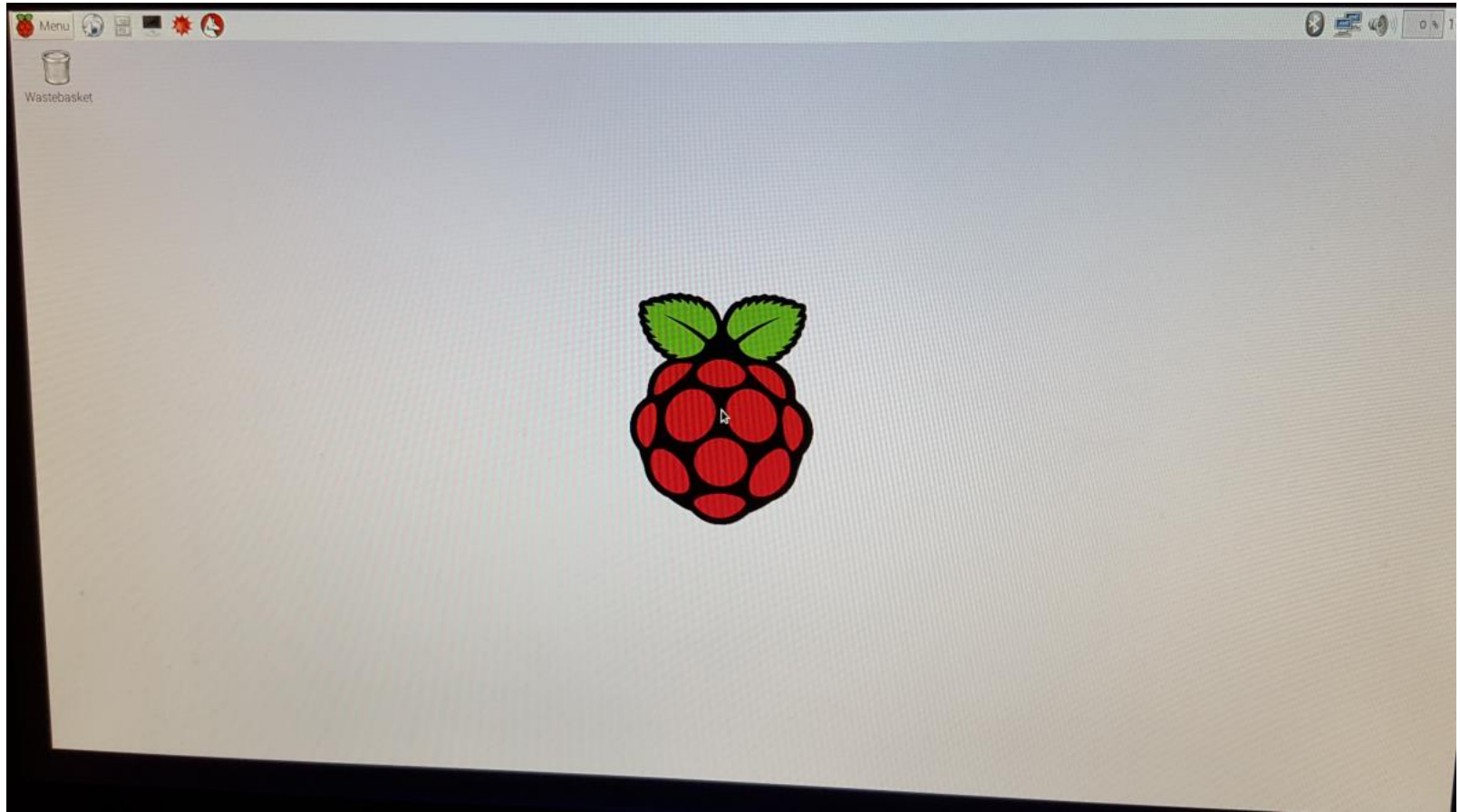
Steps prior to using the server code

# Newest version of OS

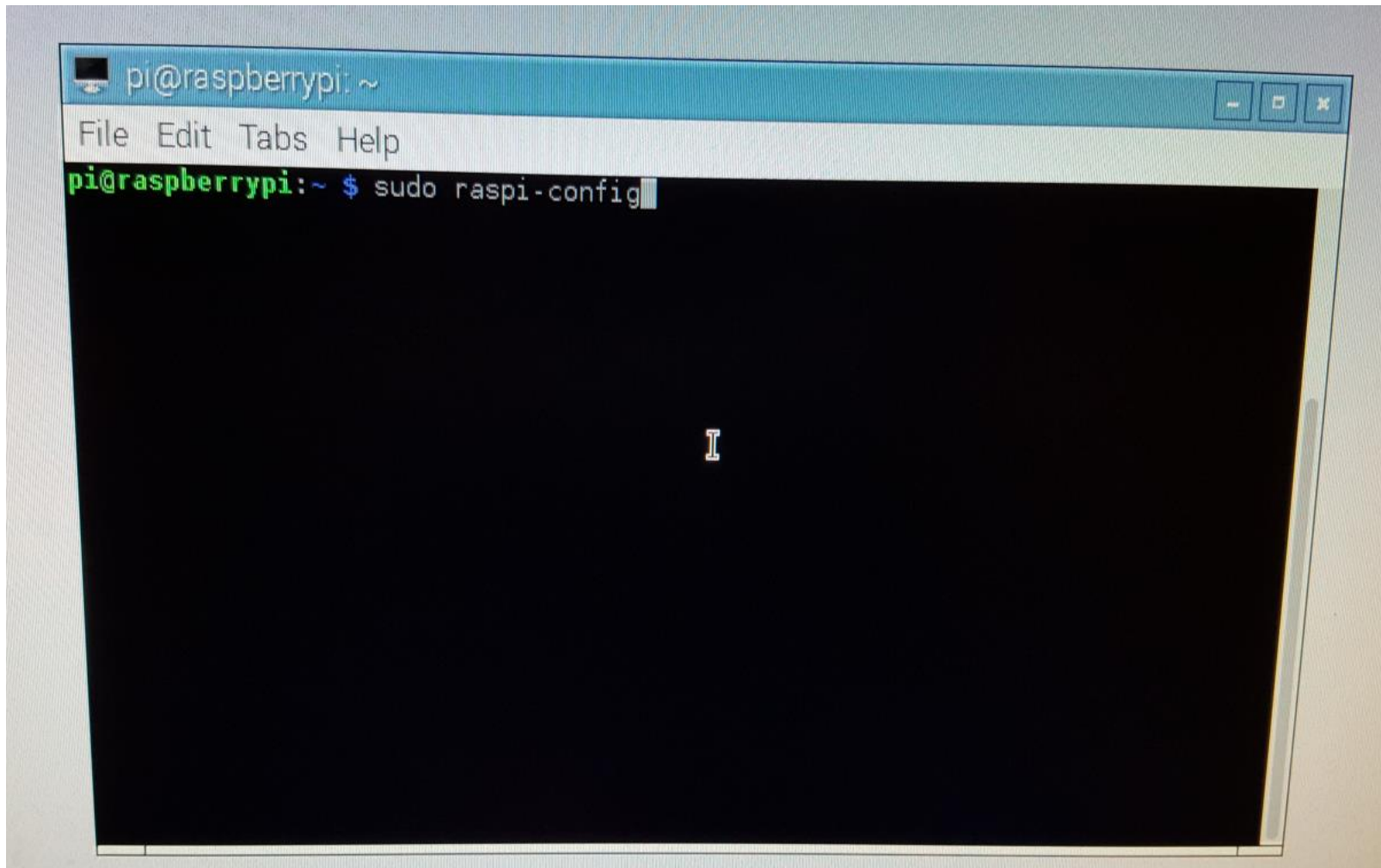
- We will be using the latest version of the RASPBIAN JESSIE ([LINK](#))
  - Full version, NOT the LITE version
  - Other OS work great, but this is what the rest of tutorials assume, so minor adjustments will need to be made if picking a different distro of Linux
- RaspberryPi.org has best documentation for this <https://www.raspberrypi.org/documentation/installation/installing-images/>

# Getting to the command line

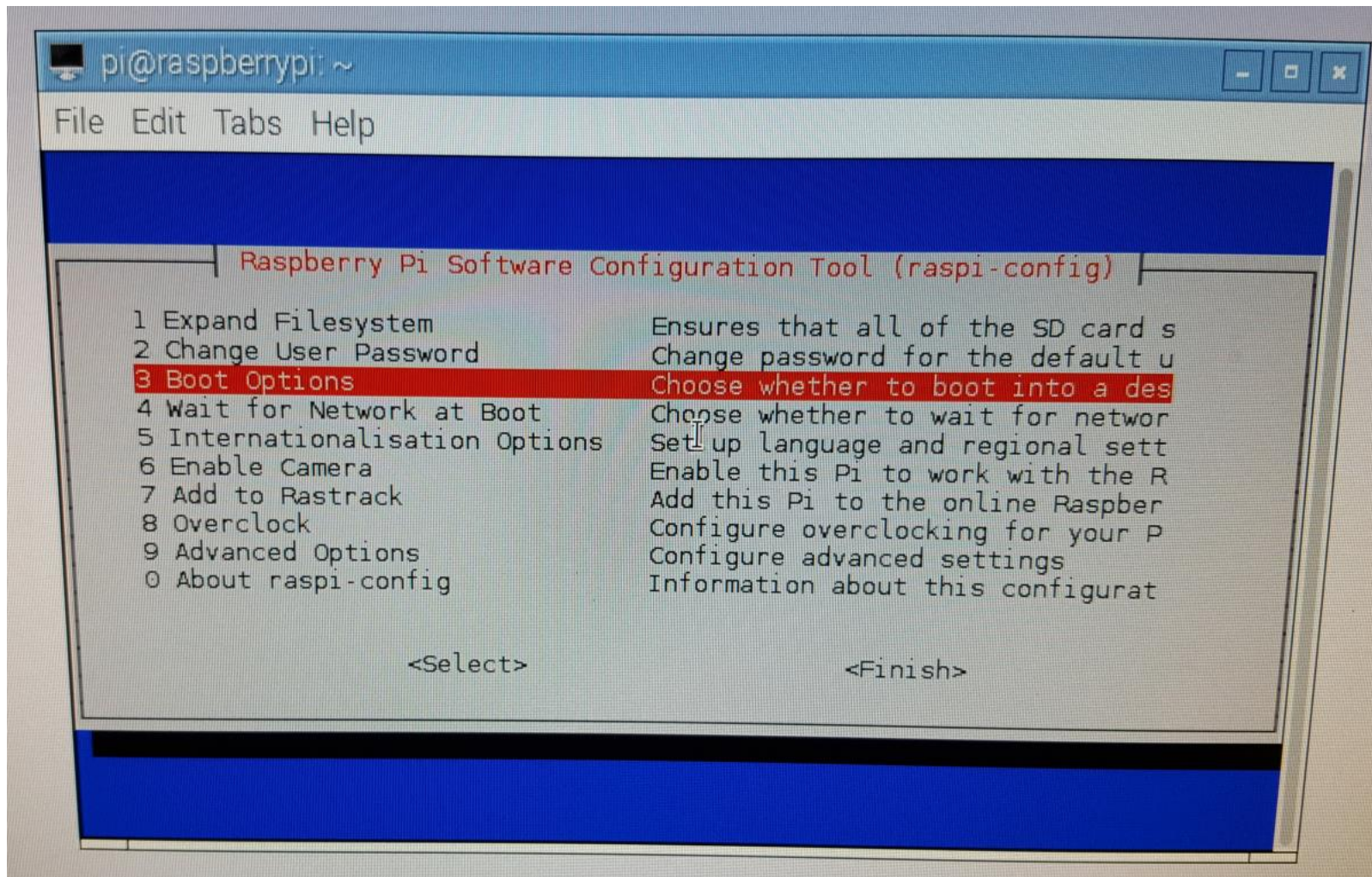
- Once you load your new OS to your Pi you will need to set it up with a monitor
  - **NOTE:** If you know a way without a monitor LET ME KNOW!
- We need to get to the GUI interface and change the Raspberry Pi Configuration to boot up to the command line logged in.



- This is the Desktop view

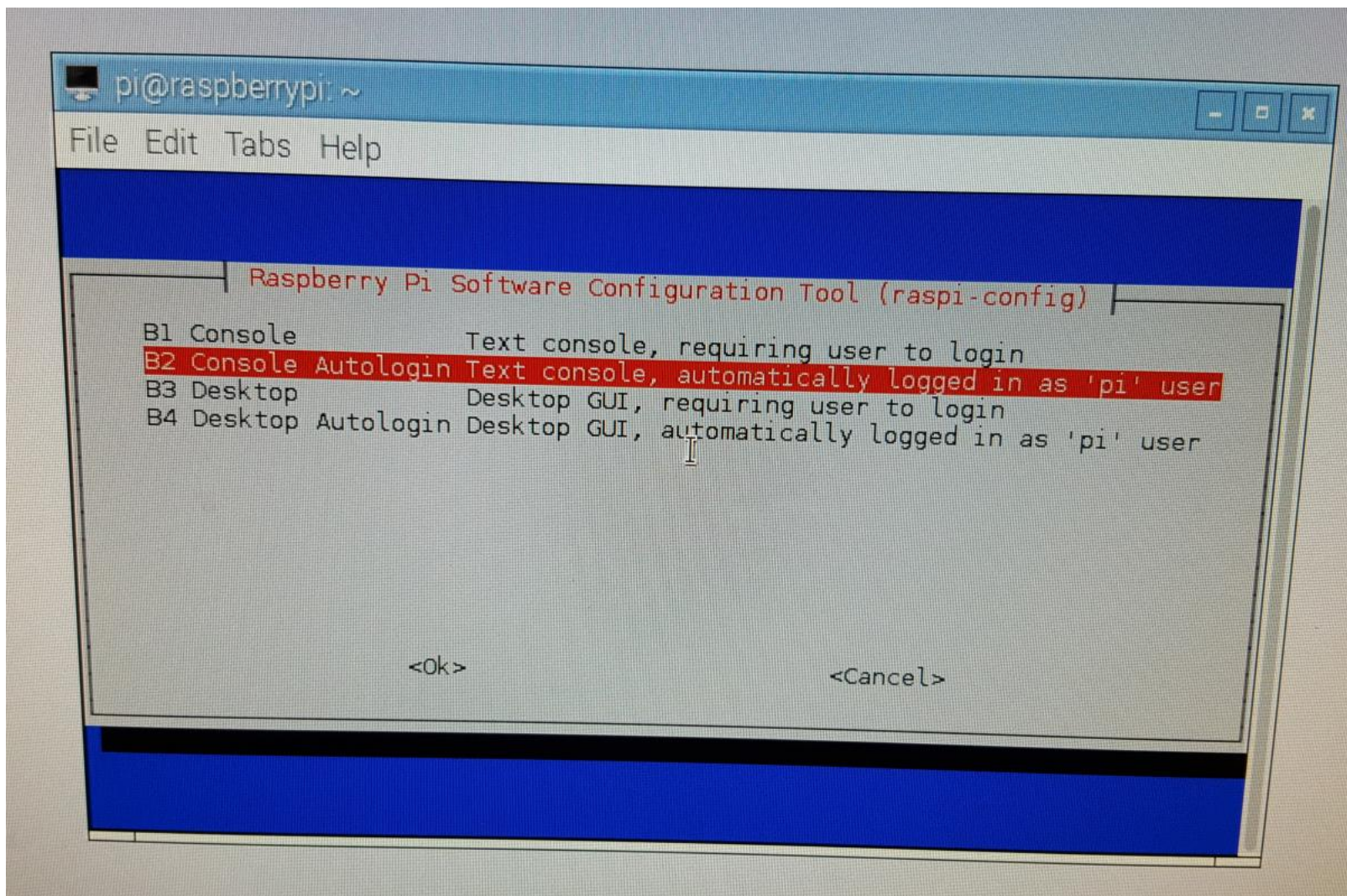


- Either find the “Terminal” or type “Ctrl+Alt+T” to open it
- Type “sudo raspi-config” and hit Enter

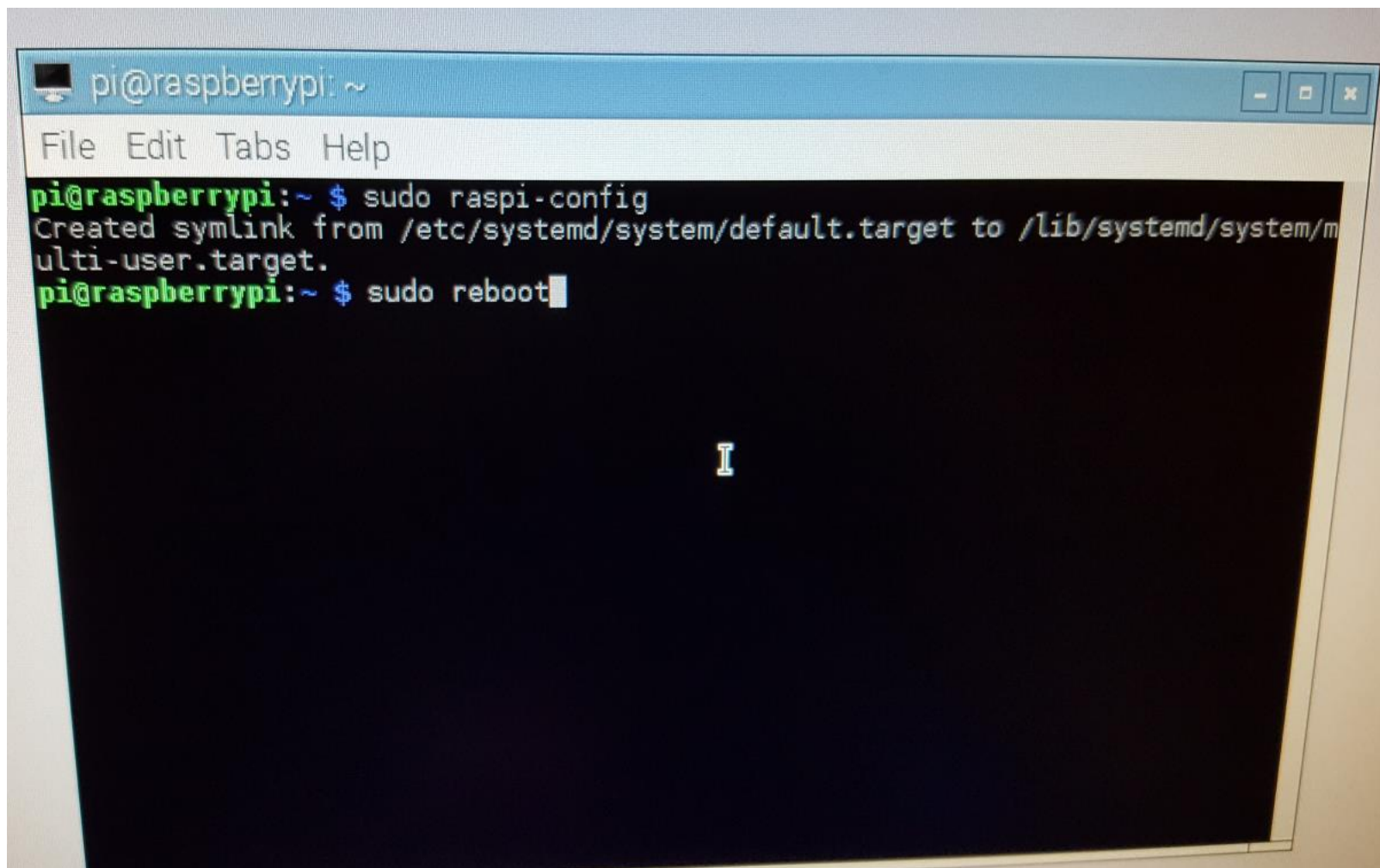


- This will bring up the Pi's configuration menu
- Use arrow keys to select option 3 ("Boot Options")





- Select “Console AutoLogin” to have the Pi boot up to the console with logged in.
- You can now exit the configuration menu

A photograph of a terminal window on a Raspberry Pi. The window has a blue title bar with the text 'pi@raspberrypi: ~' and standard window controls. Below the title bar is a menu bar with 'File', 'Edit', 'Tabs', and 'Help'. The terminal content shows a green prompt 'pi@raspberrypi:~' followed by a blue '\$' and the command 'sudo raspi-config'. The output is 'Created symlink from /etc/systemd/system/default.target to /lib/systemd/system/multi-user.target.' followed by another green prompt and the command 'sudo reboot' with a cursor. The rest of the terminal area is black with a single white cursor character 'I' in the center.

```
pi@raspberrypi: ~
File Edit Tabs Help
pi@raspberrypi:~ $ sudo raspi-config
Created symlink from /etc/systemd/system/default.target to /lib/systemd/system/multi-user.target.
pi@raspberrypi:~ $ sudo reboot
I
```

- Either power off your Raspberry Pi or type “sudo reboot” to restart the Pi



Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

pi@raspberrypi:~ \$ ifconfig

eth0 Link encap:Ethernet HWaddr b8:27:eb:4f:50:f8  
inet addr:192.168.1.121 Bcast:192.168.1.255 Mask:255.255.255.0  
inet6 addr: fe80::5489:90f3:570a:6fbc/64 Scope:Link  
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1  
RX packets:16 errors:0 dropped:0 overruns:0 frame:0  
TX packets:44 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1000  
RX bytes:2617 (2.5 KiB) TX bytes:7526 (7.3 KiB)

lo Link encap:Local Loopback  
inet addr:127.0.0.1 Mask:255.0.0.0  
inet6 addr: ::1/128 Scope:Host  
UP LOOPBACK RUNNING MTU:65536 Metric:1  
RX packets:200 errors:0 dropped:0 overruns:0 frame:0  
TX packets:200 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1  
RX bytes:16656 (16.2 KiB) TX bytes:16656 (16.2 KiB)

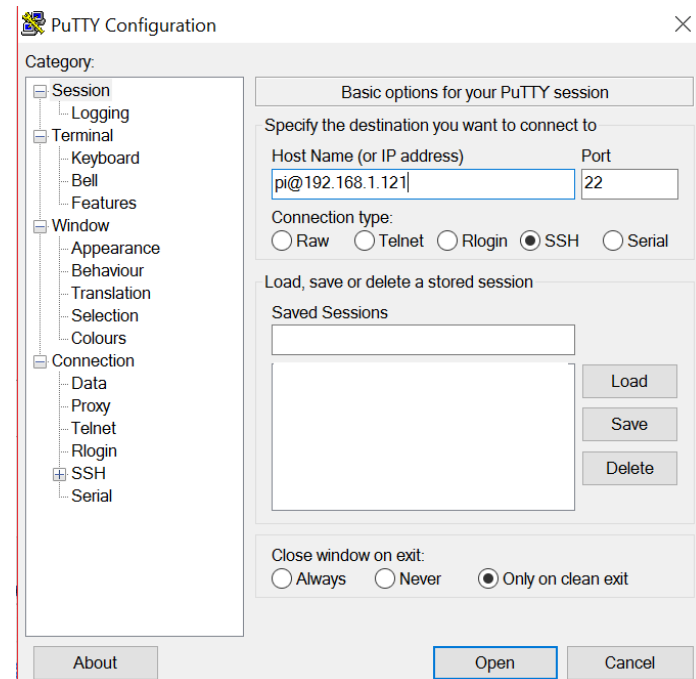
pi@raspberrypi:~ \$

- To SSH into the Pi we need it's IP Address, here are 3 options
  - Type “ifconfig” and find it
  - Log into your router and see where it is connected to
  - Set the /etc/network/interfaces config file to have a static IP

# SSH into your Pi

## Password: raspberry

- My recommendation is to download Putty if you are using Windows
  - If using Mac or Linux just open a terminal and type “ssh pi@TheIPAddressHere”
- In Putty type in the
- IP address and click “Open”
- **NOTE:** if you don't put “pi@” in front it will just ask you the username first



# Update apt-get

- “apt-get” utility is a powerful and free package management command line program (note: need internet)
- Type “sudo apt-get update”
  - (it might take some time)
- Then type “sudo apt-get upgrade”
  - (if first time will take almost 10-30 minutes)
- Now you can get thousands of modules/programs

# Installing MongoDB

- Type “sudo apt-get install mongodb-server”
- ...That's it



# Running MongoDB

- To start two main ways to start it
  - “sudo /etc/init.d/mongodb start”
  - “sudo service mongodb start”
- To check if its working type  
“sudo service mognodb status”

[In case MongoDB crashes on you](#)

# Get the Git Repo

- Find a location to hold the Git Repo
  - “/home/pi” is a pretty good location
- Type

“git clone [https://github.com/sjfricke/IEEE\\_RaspberryPi\\_Socket\\_Pokemon.git](https://github.com/sjfricke/IEEE_RaspberryPi_Socket_Pokemon.git)”

- Change Directory to the “Pi” folder in it
  - “cd IEEE\_RaspberryPi\_Socket\_Pokemon/Pi”