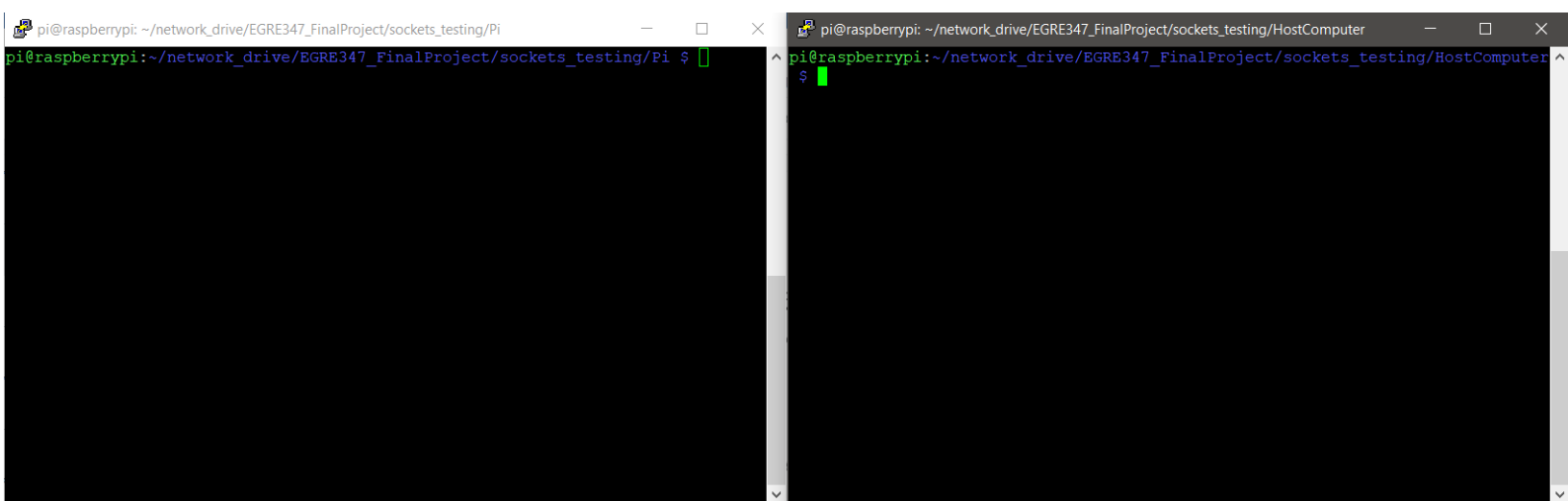


# User Guide

- Info for configuring your IP address(s):
  - Wireless:
    - Make sure that both the Pi and Host computer are connected to the same wireless network
    - Use the DHCP IP addresses provided by the wireless network instead of the statically assigned IP on the Pi
  - Ethernet:
    - Use the static IP address for the raspberry Pi on both the client and server for a simple configuration only on the Pi (ours is 192.168.1.23)
    - You can also use the IP address for the Pi on the client and the IP address for the host computer on the server so it they are mutually connected
- How to run the program (Ethernet configuration):
  - Use putty to SSH into your raspberry pi and open two terminals
  - Change your directory to **\*/EGRE347\_FinalProject/sockets\_testing/Pi** on the left terminal for the server terminal
  - Change your directory to **\*/EGRE347\_FinalProject/sockets\_testing/HostComputer** on the right terminal for the client terminal



- Run the server.py file first
  - Type **python3 server.py** in the server terminal (left)
  - If it ran successfully it should look like this:

```
pi@raspberrypi: ~/network_drive/EGRE347_FinalProject/sockets_testing/Pi
pi@raspberrypi:~/network_drive/EGRE347_FinalProject/sockets_testing/Pi $ python3
server.py
Socket Created!
Server awaiting messages
```

- If there is a socket-created error just try running the server again until it does (be patient) or check your IP configuration:

```
pi@raspberrypi: ~/network_drive/EGRE347_FinalProject/sockets_testing/Pi
pi@raspberrypi:~/network_drive/EGRE347_FinalProject/sockets_testing/Pi $ python3
server.py
Socket Created!
Error
pi@raspberrypi:~/network_drive/EGRE347_FinalProject/sockets_testing/Pi $
```

- Run the client.py file
  - Type **python3 client.py** in the client terminal (right) after running server.py in the other terminal
  - The output should look like this on both terminals if the connection is successful
    - If there is a connection error you may have an issue with your IP configuration or just try running server.py again

```
pi@raspberrypi: ~/network_drive/EGRE347_FinalProject/sockets_testing/Pi
pi@raspberrypi:~/network_drive/EGRE347_FinalProject/sockets_testing/Pi $ python3
server.py
Socket Created!
Server awaiting messages
Connected

```

```
pi@raspberrypi: ~/network_drive/EGRE347_FinalProject/sockets_testing/HostComputer
pi@raspberrypi:~/network_drive/EGRE347_FinalProject/sockets_testing/HostComputer
$ python3 client.py
Enter option:
(1) Print the part list
(2) Print a specific part number
(3) Add a part to the list
(4) Sort the list by part number
(5) Save the list
(6) Exit the program
Choice ?
```

- How to use the menu options:
  - Option 1:
    - Prints the current parts list in the database
  - Option 2:
    - Prompts the user for a part number to print specifically
  - Option 3:
    - Prompts the user for part information to add a part object to the list of parts
  - Option 4:
    - Sorts the list of parts by part number
  - Option 5:
    - Saves the current list of parts to a file on the server called "outfile.part"
  - Option 6:
    - Exits the program and cuts the connection between server and client