

# Socket Lab

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Lab environment:

*Answer:* My PC uses macOS Catalina 10.14.2, shows the following setting with *ifconfig*:

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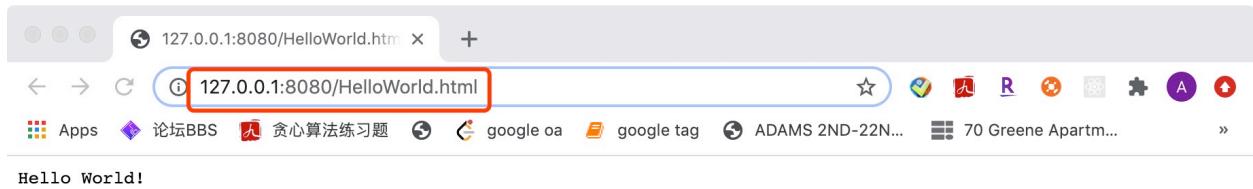
➔ ~ ifconfig
lo0: flags=8049<UP,LOOPBACK,RUNNING,MULTICAST> mtu 16384
options=1203<RXCSUM,TXCSUM,TXSTATUS,SW_TIMESTAMP>
inet 127.0.0.1 netmask 0xff000000
inet6 ::1 prefixlen 128
inet6 fe80::1%lo0 prefixlen 64 scopeid 0x1
nd6 options=201<PERFORMNUD,DAD>
gif0: flags=8010<POINTOPOINT,MULTICAST> mtu 1280
stf0: flags=0<> mtu 1280
XHC0: flags=0<> mtu 0
XHC20: flags=0<> mtu 0
XHC1: flags=0<> mtu 0
VHC128: flags=0<> mtu 0
ap1: flags=8802<BROADCAST,SIMPLEX,MULTICAST> mtu 1500
ether f2:18:98:97:41:22
media: autoselect
status: inactive
en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
ether f0:18:98:97:41:22
inet6 fe80::1c68:b9d7:9b34:f950%en0 prefixlen 64 secured scopeid 0xa
inet 192.168.1.157 netmask 0xffffffff broadcast 192.168.1.255
nd6 options=201<PERFORMNUD,DAD>
media: autoselect
status: active
p2p0: flags=8843<UP,BROADCAST,RUNNING,SIMPLEX,MULTICAST> mtu 2304
ether 02:18:98:97:41:22
media: autoselect
status: inactive
awdl0: flags=8943<UP,BROADCAST,RUNNING,PROMISC,SIMPLEX,MULTICAST> mtu 1484
ether 7a:50:05:8f:93:28
inet6 fe80::7850:5ff:fe8f:9328%awdl0 prefixlen 64 scopeid 0xc
nd6 options=201<PERFORMNUD,DAD>
media: autoselect
status: active
en1: flags=8963<UP,BROADCAST,SMART,RUNNING,PROMISC,SIMPLEX,MULTICAST> mtu 1500
options=60<TS04,TS06>
ether ca:00:29:00:eb:01
media: autoselect <full-duplex>
status: inactive
en2: flags=8963<UP,BROADCAST,SMART,RUNNING,PROMISC,SIMPLEX,MULTICAST> mtu 1500
options=60<TS04,TS06>
ether ca:00:29:00:eb:00
media: autoselect <full-duplex>
status: inactive
en3: flags=8963<UP,BROADCAST,SMART,RUNNING,PROMISC,SIMPLEX,MULTICAST> mtu 1500
options=60<TS04,TS06>
ether ca:00:29:00:eb:05
media: autoselect <full-duplex>
status: inactive
en4: flags=8963<UP,BROADCAST,SMART,RUNNING,PROMISC,SIMPLEX,MULTICAST> mtu 1500
options=60<TS04,TS06>
ether ca:00:29:00:eb:04
media: autoselect <full-duplex>
status: inactive
bridge0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
options=63<RXCSUM,TXCSUM,TS04,TS06>
ether ca:00:29:00:eb:01
Configuration:
id 0:0:0:0:0:0 priority 0 hellotime 0 fwddelay 0
maxage 0 holdcnt 0 proto stp maxaddr 100 timeout 1200
root id 0:0:0:0:0:0 priority 0 ifcost 0 port 0
ipfilter disabled flags 0x2
member: en1 flags=3<LEARNING,DISCOVER>
ifmaxaddr 0 port 13 priority 0 path cost 0
member: en2 flags=3<LEARNING,DISCOVER>
ifmaxaddr 0 port 14 priority 0 path cost 0
member: en3 flags=3<LEARNING,DISCOVER>
ifmaxaddr 0 port 15 priority 0 path cost 0
member: en4 flags=3<LEARNING,DISCOVER>
ifmaxaddr 0 port 16 priority 0 path cost 0
nd6 options=201<PERFORMNUD,DAD>
media: <unknown type>
status: inactive
utun0: flags=8051<UP,POINTOPOINT,RUNNING,MULTICAST> mtu 2000
inet6 fe80::db8d:68a6:3b89:94d4%utun0 prefixlen 64 scopeid 0x12
nd6 options=201<PERFORMNUD,DAD>
utun1: flags=8051<UP,POINTOPOINT,RUNNING,MULTICAST> mtu 1380
inet6 fe80::accd:7189:a8e5:dc88%utun1 prefixlen 64 scopeid 0x13
nd6 options=201<PERFORMNUD,DAD>
en5: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
ether ac:de:48:00:11:22
inet6 fe80::aede:48ff:fe00:1122%en5 prefixlen 64 scopeid 0x8
nd6 options=201<PERFORMNUD,DAD>
media: autoselect (100baseTX <full-duplex>)
status: active

```

In the code, I set the server IP address as 127.0.0.1 and the port is 8080. The name of html file is HelloWorld.html.

In the html, I just set the html simply shows “Hello World!” when it is opened.

After the server.py is run, we can see the html content correctly when we open the URL: 127.0.0.1:8080/HelloWorld.html



When we enter a wrong URL, we will see “404 Not Found”

