**import** socket  
**from** threading **import** Thread  
  
clients={}  
addresses={}  
  
host=**'127.0.0.1'**port=8080  
s=socket.socket(socket.AF\_INET,socket.SOCK\_STREAM)  
s.bind((host,port))  
  
**def** accept\_client\_connections():  
 **while True**:  
 client\_con,client\_address=s.accept()  
 print(client\_address,**" Has connected"**)  
 client\_con.send(**"Welcome to the chat room! Please Type your Name to continue"**.encode(**"utf8"**))  
 addresses[client\_con]=client\_address  
 Thread(target=handle\_client,args=(client\_con,client\_address)).start()  
  
**def** broadcast(msg,prefix=**""**):  
 **for** x **in** clients:  
 x.send(bytes(prefix,**"utf8"**)+msg)  
**def** handle\_client(conn,addr):  
 name=conn.recv(1024).decode(**"utf8"**)  
 welcome = **"Welcome "**+name+**" You can type #quit if you want to leave the chat room"** conn.send(bytes(welcome,**"utf8"**))  
  
 msg=name+**" has recently joined the chat room"** broadcast(bytes(msg,**"utf8"**))  
 clients[conn]=name  
 **while True**:  
 msg=conn.recv(1024)  
  
 **if** msg!=bytes(**"#quit"**,**"utf8"**):  
 broadcast(msg,name+**":"**)  
  
 **else**:  
 conn.send(bytes(**"#quit"**,**"utf8"**))  
 conn.close()  
 **del** clients[conn]  
 broadcast(bytes(name+**" Has left the Chat Room"**))  
  
  
**if** \_\_name\_\_==**"\_\_main\_\_"**:  
 s.listen(5)  
 print(**"The server has been started and is now listening to clients requests"**)  
 t1 = Thread(target=accept\_client\_connections)  
 t1.start()  
 t1.join()