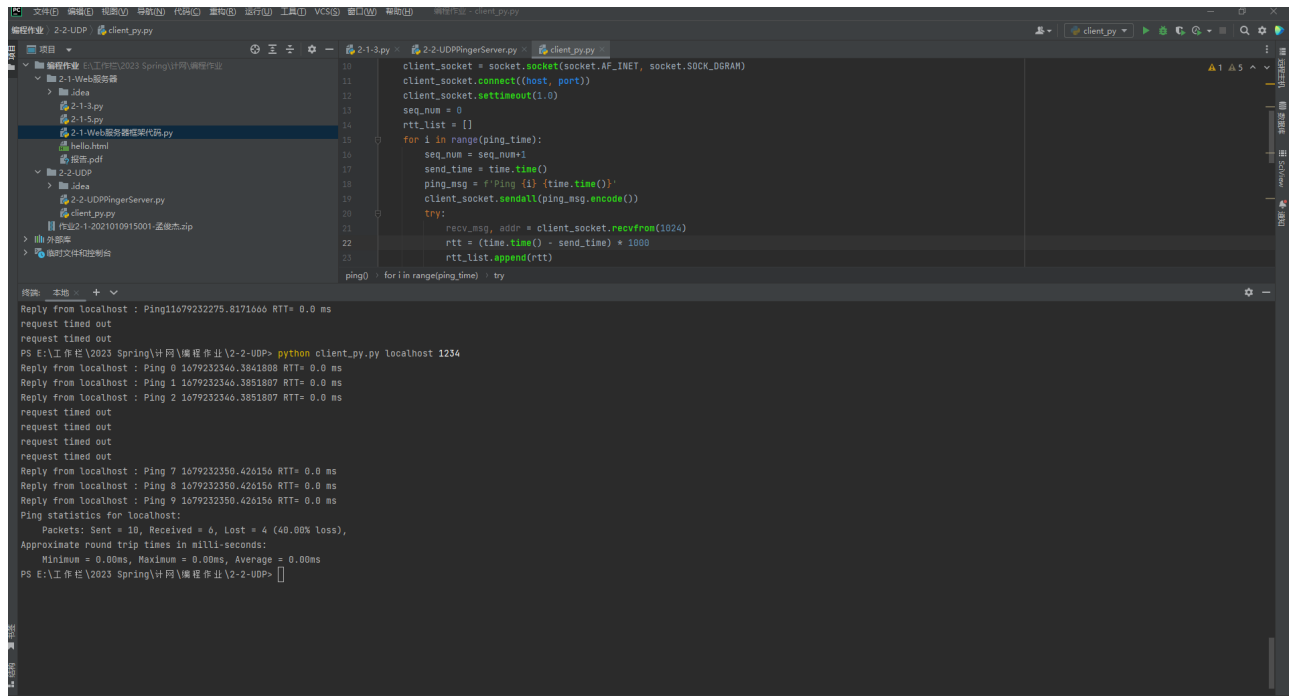


2-2-1 UDP实验报告

1 Python版本：3.9

2 实现ping后接收端输出



The screenshot shows an IDE with a project named '2-2-UDP'. The file explorer on the left shows the project structure, including a 'client.py' file. The main editor displays the code for 'client.py', which is a Python script for a UDP ping client. The code includes imports for 'socket', 'time', and 'sys'. It defines a 'ping' function that sends a ping message to a specified host and port, and a 'main' function that calls 'ping' for a range of ping times. The terminal output shows the results of running the script, including the IP address of the localhost and the RTT (Round Trip Time) for each ping.

```
10 client_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
11 client_socket.connect((host, port))
12 client_socket.settimeout(1.0)
13 seq_num = 0
14 rtt_list = []
15 for i in range(ping_time):
16     seq_num = seq_num + 1
17     send_time = time.time()
18     ping_msg = f'Ping {i} {time.time()}'
19     client_socket.sendall(ping_msg.encode())
20     try:
21         recv_msg, addr = client_socket.recvfrom(1024)
22         rtt = (time.time() - send_time) * 1000
23         rtt_list.append(rtt)
24     except:
25         pass
26 ping()
27 for i in range(ping_time):
28     try:
29         pass
30     except:
31         pass
```

终端输出:

```
Reply from localhost : Ping11679232275.8171666 RTT= 0.0 ms
request timed out
request timed out
PS E:\工作区\2023 Spring\计算机网络\2-2-UDP> python client.py localhost 1234
Reply from localhost : Ping 0 1679232346.3841808 RTT= 0.0 ms
Reply from localhost : Ping 1 1679232346.3851807 RTT= 0.0 ms
Reply from localhost : Ping 2 1679232346.3851807 RTT= 0.0 ms
request timed out
request timed out
request timed out
request timed out
Reply from localhost : Ping 7 1679232350.426156 RTT= 0.0 ms
Reply from localhost : Ping 8 1679232350.426156 RTT= 0.0 ms
Reply from localhost : Ping 9 1679232350.426156 RTT= 0.0 ms
Ping statistics for localhost:
    Packets: Sent = 10, Received = 6, Lost = 4 (40.00% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0.00ms, Maximum = 0.00ms, Average = 0.00ms
PS E:\工作区\2023 Spring\计算机网络\2-2-UDP>
```