WEEK – 10

**Name – Aditya Mishra**

**Reg. No. – RA2111003011817**

**Section – M2**

**3. Write a ping-pong client and server applica�on. When a client sends a ping**

**message to the server, the server will respond with a pong message. Other messages**

**sent by the client can be safely dropped by the server.**

**CODE:**

**Server Side -**

import socket  
  
# create a socket object  
server\_socket = socket.socket(socket.AF\_INET, socket.SOCK\_STREAM)  
  
# get local machine name  
host = socket.gethostname()  
  
# bind the socket to a public host and a well-known port  
server\_socket.bind((host, 9999))  
  
# start listening for incoming connections  
server\_socket.listen(1)  
  
print('Server listening on {}:{}'.format(host, 9999))  
  
while True:  
    # establish a connection  
    client\_socket, addr = server\_socket.accept()  
  
    # receive the message from the client  
    message = client\_socket.recv(1024).decode('utf-8')  
  
    # check if the message is a ping message  
    if message == 'ping':  
        print('Received a ping message from', addr)  
         
        # send a pong message to the client  
        client\_socket.send('pong'.encode('utf-8'))  
        print('Sent a pong message to', addr)  
  
    # close the connection  
    client\_socket.close()

**Client Side -**

import socket  
  
# create a socket object  
client\_socket = socket.socket(socket.AF\_INET, socket.SOCK\_STREAM)  
  
# get the server hostname  
host = socket.gethostname()  
  
# connect to the server  
client\_socket.connect((host, 9999))  
  
# send a ping message to the server  
client\_socket.send('ping'.encode('utf-8'))  
  
# receive the message from the server  
message = client\_socket.recv(1024).decode('utf-8')  
  
# check if the message is a pong message  
if message == 'pong':  
    print('Received a pong message from', host)  
  
# close the connection  
client\_socket.close()