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Programming Assignment 1

Computer Networks

**Part 1: Wireshark Lab**

1. My browser is running HTTP 1.1



1. US English



1. My computer: 10.0.0.201

Server: 128.119.245.12



1. Status Code: 200



1. Last modified: Wed, Oct. 09th 2019 5:53:01 GMT



1. 128 bytes



1. No, all of the headers are in the raw data.

**Part 2: UDP Ping Program**

Server Console Output:

A close up of a logo

Description automatically generated

Client Console Output

A screenshot of a cell phone

Description automatically generated

**Code:**

## @filename: UDP\_Ping\_Client.py

## @author: Alex Banning

## @assignment: UDP Ping

## @date: October 9th, 2019

## @description: UDP Client side for ping program. Sends 10 packets to localhost server

## And records the RTT time for each packet.

#!/usr/bin/env python2

# -\*- coding: utf-8 -\*-

import random

import time

from socket import \*

## Define consts

clientSocket = socket(AF\_INET, SOCK\_DGRAM)

address = ('localhost', 12000)

## Only send necessary packets

for ProgramCNT in range(10):

data = "Ping: " + str(ProgramCNT) + " " + time.asctime()

clientSocket.sendto(data.encode(), address)

timeCNTStart = time.time()

clientSocket.settimeout(1)

try:

returnMessage, returnAddress = clientSocket.recvfrom(1024)

timeCNTEnd = time.time()

timeCNT = timeCNTEnd - timeCNTStart

print ("Packet time: %6.6f\n" % (timeCNT))

print (returnMessage.decode())

except:

print ("Message Lost.")

clientSocket.close()