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**SECTION C**

**ROLL NO. 31**

**DS LAB END SEM**

**8TH JUNE 2021**

**QUESTION 1:**

**server.py**

import socket

HOST = '127.0.0.1'

PORT = 31621

s = socket.socket()

s.bind((HOST, PORT))

s.listen()

print("Waiting for incoming connections.... \n")

conn, addr = s.accept()

print("Recieved Connection from ", addr[0], "(", addr[1], ")\n")

s\_num = conn.recv(1024)

s\_num = s\_num.decode()

print("Number: ", s\_num, " recieved from client \n")

rev\_num = s\_num[::-1]

conn.send(rev\_num.encode())

**client.py**

import socket

HOST = '127.0.0.1'

PORT = 31621

s = socket.socket()

num = input(str("Enter your Number to send to Server: \n"))

print("\nTrying to connect to ", HOST, "(", PORT, ")\n")

s.connect((HOST, PORT))

print("Connected...\n")

s.send(num.encode())

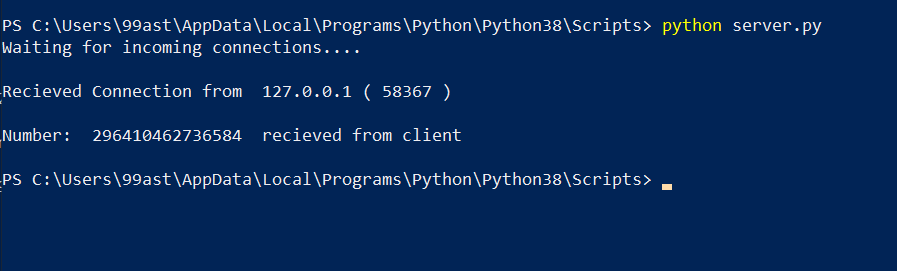
print("\nSent Server", num, "\n")

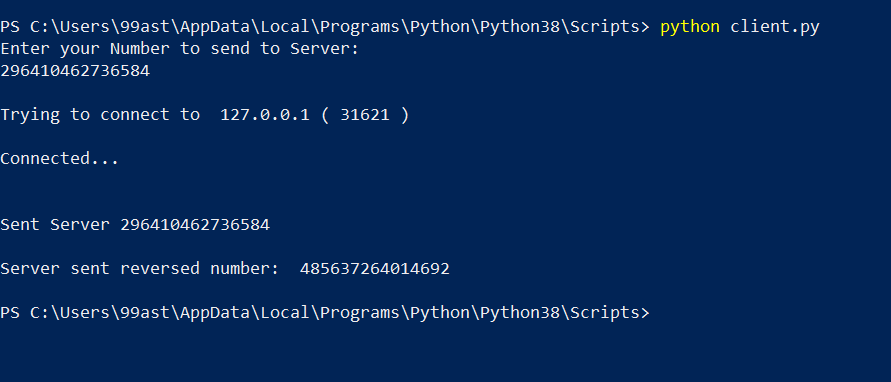
rev\_num = s.recv(1024)

rev\_num = rev\_num.decode()

print("Server sent reversed number: ", rev\_num, "\n")

**OUTPUT:**

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**QUESTION 2:**

**itemmap\_expensive.py**

import fileinput

for line in fileinput.input():

data = line.strip().split(",")

if len(data) == 6:

country, continent, year, lifeExpectancy, population, gdpPerCapita = data

if country!= "country":

print ("{0}\t{1}".format(country, int(population)))

**itemred\_expensive.py**

import fileinput

max\_value = 0

old\_key = None

for line in fileinput.input():

data = line.strip().split("\t")

if len(data) != 2:

# Something has gone wrong. Skip this line.

continue

current\_key, current\_value = data

# Refresh for new keys (i.e. locations in the example context)

if old\_key and old\_key != current\_key:

print (old\_key, "\t", max\_value)

old\_key = current\_key

max\_value = 0

old\_key = current\_key

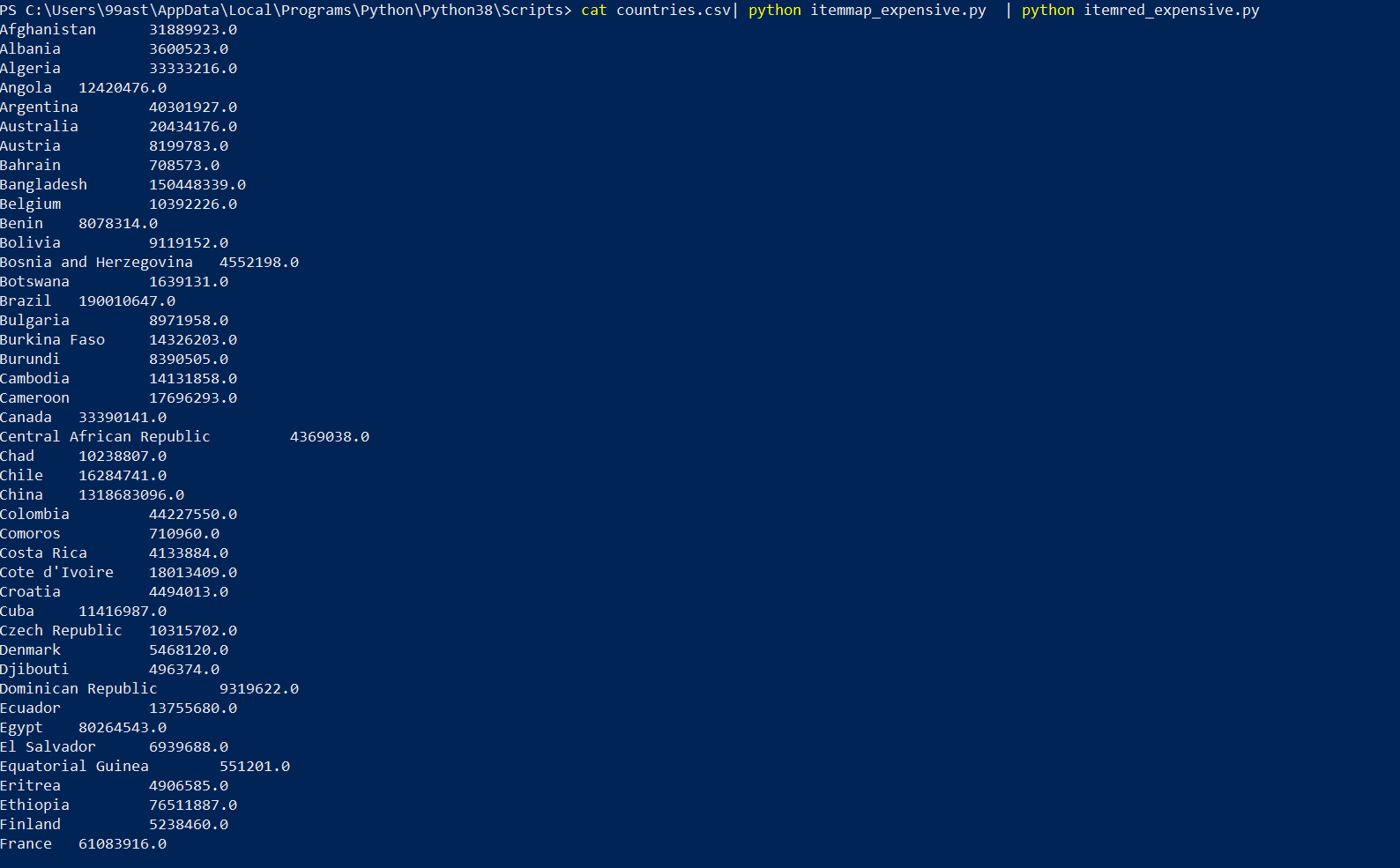
if float(current\_value) > float(max\_value):

max\_value = float(current\_value)

if old\_key != None:

print (old\_key, "\t", max\_value)

**OUTPUT:**

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