Q.1 Write a program which accepts a sequence of comma-separated numbers from console and generate a list and a tuple which contains every number.

# Accept input from the user

numbers\_str = input("Enter a sequence of comma-separated numbers: ")

# Split the input string by commas and convert each substring to integer

numbers\_list = [int(num.strip()) for num in numbers\_str.split(',')]

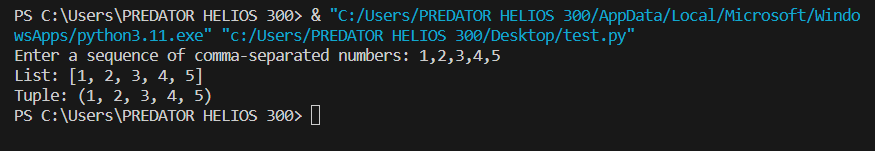
# Create a tuple from the list of numbers

numbers\_tuple = tuple(numbers\_list)

print("List:", numbers\_list)

print("Tuple:", numbers\_tuple)

Result:



Q.2 Write a function that converts hours into seconds.

def hours\_to\_seconds(hours):

return hours \* 3600

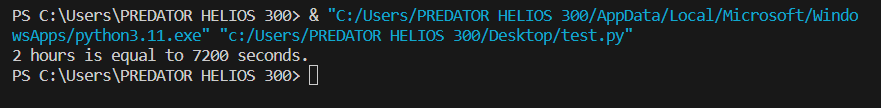
# Example usage:

hours = 2

seconds = hours\_to\_seconds(hours)

print(f"{hours} hours is equal to {seconds} seconds.")

Result:



Q.3 Write a program to automate Sending HTTP Request to web server.

import requests

url = "https://www.albussec.com"

response = requests.get(url)

if response.status\_code == 200:

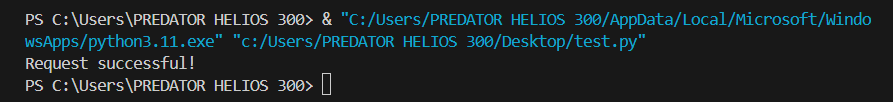
print("Request successful!")

content = response.text

else:

print(f"Request failed with status code: {response.status\_code}")

Result:



Q.4 Write a Python script that extracts the default gateway address from the output of ifconfig or ipconfig and displays it to the user.

import subprocess

import platform

def get\_default\_gateway():

if platform.system() == "Windows":

output = subprocess.run(["ipconfig"], capture\_output=True, text=True)

lines = output.stdout.split("\n")

for line in lines:

if "Default Gateway" in line:

gateway = line.split(":")[1].strip()

return gateway

elif platform.system() == "Linux" or platform.system() == "Darwin":

output = subprocess.run(["ifconfig"], capture\_output=True, text=True)

interfaces = output.stdout.split("\n\n")

for interface in interfaces:

if "default" in interface:

lines = interface.split("\n")

for line in lines:

if "inet" in line:

gateway = line.split()[1]

return gateway

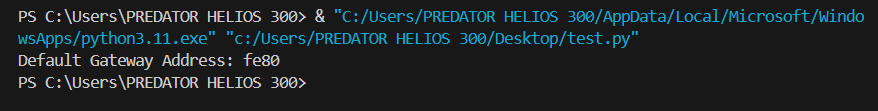
return "Default gateway not found"

if \_\_name\_\_ == "\_\_main\_\_":

gateway\_address = get\_default\_gateway()

print("Default Gateway Address:", gateway\_address)

Result:



Q.5 Write a Python script to generate strong passwords of a specified length, including a mix of uppercase letters, lowercase letters, numbers, and special characters.

import random

import string

def generate\_password(length):

characters = string.ascii\_letters + string.digits + string.punctuation

password = ''.join(random.choice(characters) for \_ in range(length))

return password

if \_\_name\_\_ == "\_\_main\_\_":

password\_length = int(input("Enter the length of the password: "))

if password\_length < 6:

print("Password length should be at least 6 characters.")

else:

password = generate\_password(password\_length)

print("Generated Password:", password)

Result:

