**Answers: Tutorial 01**

**Q1**

import requests

api\_key = "4788fe1bcb4e6ea22f28f3ce7334a943"

base\_url = "http://api.openweathermap.org/data/2.5/weather?"

city\_name = input("Enter city name : ")

complete\_url = base\_url + "appid=" + api\_key + "&q=" + city\_name

response = requests.get(complete\_url)

x = response.json()

if x["cod"] != "404":

y = x["main"]

current\_temperature = y["temp"]

current\_pressure = y["pressure"]

current\_humidiy = y["humidity"]

z = x["weather"]

weather\_description = z[0]["description"]

# print following values

print(" Temperature (in kelvin unit) = " +

str(current\_temperature) +

"\n atmospheric pressure (in hPa unit) = " +

str(current\_pressure) +

"\n humidity (in percentage) = " +

str(current\_humidiy) +

"\n description = " +

str(weather\_description))

else:

print(" City Not Found ")

**Q2**

from urllib import request

from bs4 import BeautifulSoup

import re

from nltk import word\_tokenize

from nltk.corpus import words

def unknown(url):

"""Takes a URL as its argument and returns a list of unknown words that occur on that webpage."""

# gets the text of the page

html = request.urlopen(url).read().decode('utf8')

raw = BeautifulSoup(html).get\_text()

junk = set(words.words())

# finds the lower case words by searching for a word boundary plus one or more lower case letters

lower\_case\_words = re.findall(r'\b[a-z]+', raw)

# searches through the list of lower case words and gets rid of those not in the words corpus.

unknowns = [word for word in lower\_case\_words if word not in junk]

print(unknowns)

unknown("http://www.nltk.org/book/ch03.html")

**Q3**

from random import randint

# create a list of play options

t = ["Rock", "Paper", "Scissors"]

# assign a random play to the computer

computer = t[randint(0, 2)]

# set player to False

player = False

while player == False:

# set player to True

player = input("Rock, Paper, Scissors?")

if player == computer:

print("Tie!")

elif player == "Rock":

if computer == "Paper":

print("You lose!", computer, "covers", player)

else:

print("You win!", player, "smashes", computer)

elif player == "Paper":

if computer == "Scissors":

print("You lose!", computer, "cut", player)

else:

print("You win!", player, "covers", computer)

elif player == "Scissors":

if computer == "Rock":

print("You lose...", computer, "smashes", player)

else:

print("You win!", player, "cut", computer)

else:

print("That's not a valid play. Check your spelling!")

# player was set to True, but we want it to be False so the loop continues

player = False

computer = t[randint(0, 2)]

**Q4**

# A program to generate passwords

import random

print('''

Password Generator

==================

''')

chars = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ!@£$%^&\*().,?0123456789"

number = input("number of passwords? ")

number = int(number)

length = input("password length?")

length = int(length)

print("\nHere are your passwords:")

for pwd in range(number):

password = ""

for c in range(length):

password += random.choice(chars)

print(password)

print("\nEnjoy...Thank you")