**Lab Exercise – 6**

#### 1: Subtract a week ( 7 days)  from a given date in Python

**2:** Add week ( 7 days) and 12 hours to a given date

**Given:**

# 2024-03-22 10:00:00

given\_date = datetime(2024, 3, 22, 10, 0, 0)

**Expected output:**

2024-03-29 22:00:00

**3:** Print ten dates, each two a week apart, starting from today, in the form YYYY-MM-DD.

**4:** Calculate number of days between two given dates

**Given:**

# 2020-02-25

date\_1 = datetime(2020, 2, 25)

# 2020-09-17

date\_2 = datetime(2020, 9, 17)

**Expected output:**

205 days

**5:** Write a Python script to display the

a) Current date and time

b) Current year in full

c) Month of year full name

d) Weekday of the week

e) Day of the month

f) Day of week in full name

**6: Follow the steps:**

* Create a class, Triangle. Its \_\_init\_\_() method should take self, angle1, angle2, and angle3 as arguments. Make sure to set these appropriately in the body of the \_\_init\_\_()method.
* Create a variable named number\_of\_sides and set it equal to 3.
* Create a method named check\_angles. The sum of a triangle's three angles is It should return True if the sum of self.angle1, self.angle2, and self.angle3 is equal 180, and False otherwise.
* Create a variable named my\_triangle and set it equal to a new instance of your Triangle class. Pass it three angles that sum to 180 (e.g. 90, 30, 60).
* Print out my\_triangle.number\_of\_sides and print out my\_triangle.check\_angles().

**7:** Define a class called Songs, it will show the lyrics of a song. Its \_\_init\_\_() method should have two arguments:self and lyrics.lyricsis a list. Inside your class create a method called sing\_me\_a\_song that prints each element of lyricson his own line. Define a varible:

happy\_bday = Song(["May god bless you, ",

"Have a sunshine on you,",

"Happy Birthday to you !"])

Call the sing\_me\_song method on this variable.

**8:** Define a class called Lunch.Its \_\_init\_\_() method should have two arguments:selfanf menu.Where menu is a string. Add a method called menu\_price.It will involve a ifstatement:

* if "menu 1" print "Your choice:", menu, "Price 12.00", if "menu 2" print "Your choice:", menu, "Price 13.40", else print "Error in menu".

To check if it works define: Paul=Lunch("menu 1") and call Paul.menu\_price().

**9:** Write a Python class which has two methods get\_String and print\_String. get\_String accept a string from the user and print\_String print the string in upper case.

**10:** Write a program to find the area and perimeter of a rectangle using classes and objects. Program output should be like this:

