**Module 4 Activities**

**Activity 1**

Create a Python program about temperature and days of the week following these steps:

a) Create String variables to hold the following pieces of text: 'The temperature on ', 'The data type of the variable ', and other one to create space.

b) Create a FLOATING POINT data type to contain temperatures. You need decimals such as .0 to force Python create a floating point data type. Use one day of the week for the variable name.

c) Create a hole number or INTEGER (int) data type to contain a hole number temperature. Use another day of the week for the variable name.

d) Build the output for one day of the week (the one for the decimals value) by concatenating the required information. Cast the value to sting. Concatenate using the + operator.

e) Build the output for the other day of the week (the one hole number value) by concatenating the required information. Cast the value to string. Concatenate using the + operator.

f) Print the concatenated strings.

g) Explain if you could do some of the casting implicit and some explicit.

**Activity 2**

Follow the steps mentioned in Activity 1. Create a similar program but this time about manipulation of numbers, for example a basic addition and multiplication calculator. So the concatenated strings your program prints will say something like: “The sum of the 10.5 + 20.5 is 31” or “The sum of the 10 + 20 is 30” Explain if you could do some of the casting implicit and some explicit.

**Activity 3**

Follow the steps mentioned in Activity 1. Create a similar program but this time your goal to calculate the volume of a cylinder . So the concatenated strings your program prints will say something like: “The volume of a cylinder with radius 5 and height 10 is ” Explain if you could do some of the casting implicit and some explicit.

**Activity 4**

Follow the steps mentioned in Activity 1. Create a similar program but this time your goal to calculate the distance from Earth to the Moon, both in kilometers and miles. So the concatenated strings your program prints will say something like: “The distance from Earth to the Moon is approximately kilometers” Explain if you could do some of the casting implicit and some explicit.