**ITS 245 – Integrative Programming**

**Lab 06 – (100 points)**

**Question.**

Q1 : The idea is coming from the song: “What does the fox say?”, you can watch the YouTube video which will help you write the  code: <https://www.youtube.com/watch?v=jofNR_WkoCE>

This lab will implement polymorphism. Each animal should make a different sound.

First, pick three different animals (Like Dog, Fox, Cat) They contain five common fields (think what kind of data types should be used to declare them):

1. name
2. age
3. weight
4. food
5. sleep time

  And three methods:

1. eat()
2. sleep()
3. say()

You can define the methods of eat() and sleep() on your own, but for say(), just like singing in the song, please print different words to represent different sounds for each animal.  (For example, if you pick cat as one of animals, then in cat’s say() method, you can print “meow meow meow” on the screen. )

**What you need to do:**

Define the animals you selected. Then in the main() method, print out all functions each animal can do, especially say().

Sample Output:

**Fox eats rabbits.**

**Fox sleeps for 10 hours a day.**

**Fox says “Ring-ding-ding-ding-dingeringeding”**

**(Print for other two animals as well)**

Please note: this lab has several ways to implement. You can create a base class and let all animals inherit from the base class (use new or virtual/override keywords), or you can define the base class as abstract, or you can create an interface and let each animal implement the interface.  As long as you meet the requirement of lab 6, the technique you used is unrestricted.

**Deliverables:**

Two files need to be uploaded into Brightspace in one submission:

1. An electronic copy of your lab report including source code and screenshot of result for each question.
   1. Code snapshot:
   2. Result snapshot:
2. A zip file including all the project files with your source code in it.