Object Oriented Programming
Lab Task#09

Note:

- Copied task will be awarded zero marks.
- Note that these lab task marks could be graded through a viva in lab.
- Submit the .cpp file for each task in google classroom and rename it with your roll no and name.
  For example: Ali_Ahmed_22p9023_task1.cpp.
- Lab Tasks will be graded in Lab.
- properly comment your code for user understanding purpose.
- Marks will be deducted if above instructions are not followed.

Task:1

Design a program that includes a base class named Animal, and two derived classes, Bird and Reptile, that are privately inherited from the Animal class. The Animal class has two public data members, the name and age of an animal, and a method speak(), leave that empty here. The Bird class has an additional private data member named wingLength, representing the length of the bird's wings. The Reptile class has an additional private data member named habitat, representing the environment where the reptile lives. The sub classes will override the speak() method, which displays the name and age of the animal along with a message indicating the type of the animal and the sound it makes. The Bird class has a specific message indicating that the bird can sing, while the Reptile class has a specific message indicating that the reptile can creep. The main function of the program should create an object of the Bird class and an object of the Reptile class, initialize their data members using the constructor, and call their speak() member function to display the information.

Note: None of your class should have getter and setter methods

Sample Output:

```
My name is: Parrot My age is: 2
I am a bird and I can sing...
My name is: Crocodile My age is: 5
I am a reptile. I can creep...
```

Task:2

Consider your semester project. Identify “is a” relationship between your classes and code for at least one parent and one child class. Write a main program to test the inheritance.